

1. IDENTIFICATION

PRODUCT NAME: CAL-TASTIC
RECOMMENDED USE: MULTI-SURFACE CLEANER AND DEGREASER
RESTRICTIONS ON USE: DO NOT USE IN A MANNER INCONSISTENT WITH THE LABEL.
LABEL BRAND: USCALRITE
SDS 100797C CODE 4362834

U S CHEMICAL 316 HART STREET WATERTOWN, WI 53094 USA
MEDICAL EMERGENCY: 1-866-923-4913 USA
SPILL EMERGENCY: 1-800-424-9300 USA
PRODUCT INFORMATION: 1-800-558-9566 USA (8 A.M. TO 5 P.M. CST MONDAY TO FRIDAY)
INTERNET ADDRESS: WWW.USCHEMICAL.COM

2. HAZARD(S) IDENTIFICATION

CLASSIFICATION: SKIN CORROSION (CATEGORY 1C), EYE DAMAGE (CATEGORY 1)
CORROSIVE TO METALS (CATEGORY 1)

LABEL ELEMENTS

SIGNAL WORD: DANGER

PICTOGRAMS: CORROSION



**HAZARD STATEMENTS: CAUSES SEVERE SKIN BURNS AND SERIOUS EYE DAMAGE.
MAY BE CORROSIVE TO METALS.**

PRECAUTIONARY STATEMENTS: Wear chemical-splash safety goggles, chemical-resistant protective gloves and protective footwear. Avoid contact with eyes, skin and clothing. Do not breathe vapors or mists. Do not eat, drink, or smoke when using this product. Wash hands and affected areas thoroughly after handling. Absorb spillage to prevent material damage.

FIRST AID: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing for at least 15 minutes. **IF ON SKIN (OR HAIR):** Take off immediately all contaminated clothing. Rinse skin with water for at least 15 minutes. Wash contaminated clothing before reuse. **IF SWALLOWED:** Rinse mouth. **Do NOT** induce vomiting. If conscious, dilute by drinking up to a cupful of milk or water as tolerated. **IF INHALED:** Remove person to fresh air and keep comfortable for breathing.

START FIRST AID. IMMEDIATELY CALL A POISON CENTER OR PHYSICIAN.

EMERGENCY TELEPHONE: 1-866-923-4913

Storage: Store tightly closed only in original corrosive-resistant plastic container. Store locked up.

Disposal: Dispose of contents in accordance with all federal, state and local applicable laws and regulations.

KEEP OUT OF REACH OF CHILDREN. FOR COMMERCIAL AND INDUSTRIAL USE ONLY.

HAZARDS NOT OTHERWISE CLASSIFIED: Not applicable.

3. COMPOSITION / INFORMATION ON INGREDIENTS

HAZARDOUS INGREDIENT(S)	CAS #	WEIGHT %
ALCOHOL ETHOXYLATES	68439-46-3	5.0
SODIUM METASILICATE	6834-92-0	4.2
2-BUTOXYETHANOL	111-76-2	3.7
TETRASODIUM EDTA	64-02-8	1.6
STATE RIGHT TO KNOW: SEE SECTION 15 FOR STATE RTK CHEMICAL NAMES IN MIXTURE.		

4. FIRST-AID MEASURES

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IF IN EYES: RINSE CAUTIOUSLY WITH WATER FOR SEVERAL MINUTES. REMOVE CONTACT LENSES, IF PRESENT AND EASY TO DO. CONTINUE RINSING FOR AT LEAST 15 MINUTES.
IF ON SKIN (OR HAIR): TAKE OFF IMMEDIATELY ALL CONTAMINATED CLOTHING. RINSE SKIN WITH WATER FOR AT LEAST 15 MINUTES. WASH CONTAMINATED CLOTHING BEFORE REUSE.
IF SWALLOWED: RINSE MOUTH. **Do NOT** INDUCE VOMITING. IF CONSCIOUS, DILUTE BY DRINKING UP TO A CUPFUL OF MILK OR WATER AS TOLERATED. **IF INHALED:** REMOVE PERSON TO FRESH AIR AND KEEP COMFORTABLE FOR BREATHING.
START FIRST AID. IMMEDIATELY CALL A POISON CENTER OR PHYSICIAN.
EMERGENCY TELEPHONE: 1-866-923-4913

MOST IMPORTANT SYMPTOMS / EFFECTS: CAUSES SEVERE SKIN BURNS AND SERIOUS EYE DAMAGE. MAY CAUSE BLINDNESS WITHOUT IMMEDIATE FIRST AID. HARMFUL IF SWALLOWED. CAUSES BURNS AND SERIOUS DAMAGE TO MOUTH, THROAT AND STOMACH. CORROSIVE TO ALL BODY TISSUES.

MEDICAL CONDITIONS AGGRAVATED: NONE KNOWN.

NOTE TO PHYSICIAN: CALL 1-866-923-4913 FOR EXPOSURE MANAGEMENT ASSISTANCE.

5. FIRE-FIGHTING MEASURES

CHEMICAL HAZARDS: CORROSIVE. NON-FLAMMABLE.

COMBUSTION PRODUCT HAZARDS: OXIDES OF CARBON AND OTHER FUMES.

METHODS: SELECT EXTINGUISHER AND METHODS BASED ON FIRE SIZE AND TYPE.

EQUIPMENT: WEAR SCBA AND FULL PROTECTIVE GEAR AS CONDITIONS WARRANT.

NFPA RATING: HEALTH-3/FLAMMABILITY-0/ INSTABILITY-0/SPECIAL HAZARD-N.AP.

SUITABLE EXTINGUISHERS: WATER, DRY CHEMICAL, CO2 OR FOAM SUITABLE FOR FIRE.

UNSUITABLE EXTINGUISHERS: NO RESTRICTIONS BASED ON CHEMICAL HAZARDS.

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS: EVACUATE UNPROTECTED PERSONNEL FROM AREA. WEAR PERSONAL PROTECTION INCLUDING RUBBER BOOTS. SEE SECTION 8. VENTILATE AREA IF NEEDED. BE CAREFUL NOT TO SLIP. WASH THOROUGHLY AFTER CLEAN-UP.

ENVIRONMENTAL PRECAUTIONS: PREVENT SPILL FROM ENTERING DRAIN, STORM SEWER OR SURFACE WATERWAY. PREVENT WATER AND SOIL CONTAMINATION.

CLEAN-UP METHODS: SMALL SPILLS MAY BE WIPED UP AND RINSED WITH WATER. FOR LARGER SPILLS, DIKE TO CONTAIN. PUMP TO LABELED CONTAINER OR ABSORB SPILLAGE AND SCOOP UP WITH INERT ABSORBENT MATERIAL. AFTER SPILL COLLECTION, RINSE AREA WITH WATER AND FOLLOW WITH NORMAL CLEAN-UP PROCEDURES.

7. HANDLING AND STORAGE

HANDLING: FOLLOW ALL LABEL DIRECTIONS. INSTRUCT PERSONNEL ABOUT PROPER USE, HAZARDS, PRECAUTIONS, AND FIRST AID MEASURES. AVOID INHALATION, INGESTION, AND CONTACT WITH SKIN, EYES AND CLOTHING. DO NOT TASTE OR SWALLOW. REMOVE AND WASH CONTAMINATED CLOTHING AND FOOTWEAR BEFORE REUSE. PRODUCT RESIDUE MAY REMAIN IN EMPTY CONTAINERS. HANDLE CAREFULLY TO AVOID DAMAGING CONTAINER.

STORAGE: STORE TIGHTLY CLOSED ONLY IN ORIGINAL CORROSIVE-RESISTANT PLASTIC CONTAINER. STORE LOCKED UP. STORE AT AMBIENT TEMPERATURES IN A DRY AREA OUT OF DIRECT SUNLIGHT. PROTECT FROM FREEZING. ROTATE STOCK REGULARLY. KEEP AWAY FROM FOOD AND DRINK. KEEP OUT OF REACH OF CHILDREN.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

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EXPOSURE LIMITS: ALCOHOL ETHOXYLATES = NONE

SODIUM METASILICATE = NONE

2-BUTOXYETHANOL = 20 PPM TWA (ACGIH), 50 PPM TWA-SKIN, 240 MG/M3 TWA-SKIN (OSHA)

TETRASODIUM EDTA = NONE

ENGINEERING CONTROLS: NONE REQUIRED. GENERAL ROOM VENTILATION IS TYPICALLY ADEQUATE.**PERSONAL PROTECTION****EYES:** SAFETY GOGGLES (INDIRECT-VENTED OR NON-VENTED) AND AN EYE-WASH STATION.**HANDS:** CHEMICAL-RESISTANT PROTECTIVE GLOVES (RUBBER OR NEOPRENE).**RESPIRATORY:** SUITABLE RESPIRATOR IF MISTS/VAPORS ARE NOT CONTROLLED BY VENTILATION.**FEET:** RUBBER BOOTS DURING SPILL CLEAN-UP AND WHEN EXPOSURE IS POSSIBLE.**BODY:** RUBBER FULL-COVER PROTECTIVE CLOTHING WHEN EXPOSURE IS POSSIBLE.**9. PHYSICAL AND CHEMICAL PROPERTIES****APPEARANCE:** RED LIQUID**ODOR:** SOLVENT**pH CONCENTRATE:** ABOVE 13.0**pH @ 2500 PPM SOLUTION:** N.AV.**pH @ USE DILUTION:** N.AV.**PHYSICAL STATE:** LIQUID**RELATIVE DENSITY (WATER):** 1.072**SOLUBILITY (WATER):** COMPLETE**VAPOR PRESSURE:** N.AV.**VAPOR DENSITY:** N. AV.**VISCOSITY:** NON-VISCOUS**AUTO-IGNITION TEMPERATURE:** N.AV.**DECOMPOSITION TEMPERATURE:** N.AV.**EXPLOSIVE LIMITS (LEL/UEL):** NONE**EVAPORATION RATE:** N.AV.**FLAMMABILITY (SOLID, GAS):** N.AP.**FLASH POINT:** NONE**INITIAL BOILING POINT/RANGE:** N.AV.**MELTING POINT/FREEZING POINT:** N.AV.**ODOR THRESHOLD:** N.AV.**PARTITION COEFF. (N-OCTANOL/WATER):** N.AV**OTHER:** N.AV.**10. STABILITY AND REACTIVITY****REACTIVITY:** MIXING WITH INCOMPATIBLES CAN RELEASE HEAT + HAZARDOUS GASES.**CHEMICAL STABILITY:** STABLE.**POSSIBILITY OF HAZARDOUS REACTIONS:** SEE REACTIVITY. WILL NOT POLYMERIZE.**CONDITIONS TO AVOID:** TEMPERATURES BELOW 35°F (1.6°C) OR ABOVE 120°F (49°C).**MATERIALS TO AVOID:** ACIDS, METAL AND OTHER CLEANERS. MIX ONLY WITH WATER.**HAZARDOUS DECOMPOSITION PRODUCTS:** NONE UNDER NORMAL CONDITIONS.**11. TOXICOLOGICAL INFORMATION****ROUTES OF EXPOSURE:** EYES, SKIN, INGESTION, INHALATION.**INFORMATION ON ROUTES OF EXPOSURE:** NO LC50/LD50 TEST DATA ON MIXTURE.**ACUTE EFFECTS /SYMPTOMS:** CORROSIVE TO ALL BODY TISSUES.**EYES:** CAUSES SERIOUS EYE DAMAGE. MAY CAUSE PAIN, REDNESS AND WATERING.**SKIN:** CAUSES SEVERE SKIN BURNS. MAY CAUSE DELAYED PAIN, REDNESS AND BLISTERING.**INGESTION:** CAUSES BURNS AND SERIOUS DAMAGE TO MOUTH, THROAT AND STOMACH.**INHALATION:** MAY CAUSE CORROSIVE EFFECTS TO NOSE, THROAT, AND RESPIRATORY SYSTEM.**CHRONIC / OTHER EFFECTS:** NO REPORTABLE GERM CELL MUTAGENS, SKIN SENSITIZERS, RESPIRATORY SENSITIZERS, REPRODUCTIVE TOXINS OR ASPIRATION HAZARDS.**SPECIFIC TARGET ORGANS (SINGLE/REPEATED):** NONE KNOWN.**NUMERICAL MEASURES OF TOXICITY:** ATE_{mix} (ORAL-RAT) = ABOVE 2000 MG / KG**CARCINOGENS:** NO REPORTABLE ACGIH, IARC, NTP, OR OSHA CARCINOGENS.

12. ECOLOGICAL INFORMATION

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ECOTOXICITY / CHEMICAL FATE: NOT AVAILABLE.**13. DISPOSAL CONSIDERATIONS**

DISPOSAL METHOD: UNDILUTED PRODUCT IS REGULATED UNDER ENVIRONMENTAL AND TRANSPORTATION LAWS AS A CORROSIVE WASTE (RCRA CLASS D002). DISPOSE OF CONTENTS IN ACCORDANCE WITH ALL FEDERAL, STATE, AND LOCAL APPLICABLE LAWS AND REGULATIONS. CONSULT STATE AND LOCAL AUTHORITIES FOR RESTRICTIONS ON DISPOSAL OF CHEMICAL WASTE. MANAGE CHEMICAL WASTES THROUGH AN APPROVED WASTE TREATMENT FACILITY. DO NOT REUSE EMPTY CONTAINER. RINSE EMPTY CONTAINER THOROUGHLY WITH WATER BEFORE DISCARDING CONTAINER IN ACCORDANCE WITH CURRENT LOCAL COMMUNITY CODES. PLEASE RECYCLE EMPTY CONTAINER WHENEVER POSSIBLE.

14. TRANSPORT INFORMATION**DOT / IMDG / TDG:** UN3253, DISODIUM TRIOXOSILICATE SOLUTION, 8, III**15. REGULATORY INFORMATION****EPA CERCLA RQ:** NO**EPA REGISTERED:** NO**OSHA HAZARDOUS:** YES**PHOSPHORUS CONTENT:** 0.00%**PROPOSITION 65:** NO**SARA 311/312 HAZARDS:** ACUTE**SARA 313 CHEMICALS:** NO**STATE RIGHT TO KNOW:** WATER/7732-18-5, ALCOHOL ETHOXYLATES/68439-46-3, SODIUM METASILICATE/6834-92-0, 2-BUTOXYETHANOL/111-76-2, TETRASODIUM EDTA/64-02-8**TSCA INVENTORY STATUS:** ALL COMPONENTS ARE LISTED ON THE INVENTORY.**VOC:** 3.80% CALCULATION METHOD USED IS BASED ON CALIFORNIA ARB STANDARD.**16. OTHER INFORMATION****PREPARATION DATE:** 2-10-16 **PREPARED BY:** RC**REVISED SECTION:** 16**ABBREVIATIONS:** N.AV. = NOT AVAILABLE**N.AP. = NOT APPLICABLE****NOTICE TO READER**

THIS DOCUMENT HAS BEEN PREPARED USING DATA FROM SOURCES CONSIDERED TECHNICALLY RELIABLE. IT DOES NOT CONSTITUTE A WARRANTY, EXPRESS OR IMPLIED, AS TO THE ACCURACY OF THE INFORMATION CONTAINED WITHIN. ACTUAL CONDITIONS OF USE AND HANDLING ARE BEYOND SELLER'S CONTROL. USER IS RESPONSIBLE FOR EVALUATING ALL AVAILABLE INFORMATION WHEN USING PRODUCT FOR ANY PARTICULAR USE AND TO COMPLY WITH ALL FEDERAL, STATE, PROVINCIAL AND LOCAL LAWS AND REGULATIONS.

1. IDENTIFICATION

PRODUCT NAME: PREMIUM BREAK

RECOMMENDED USE: ALKALINE LAUNDRY BOOSTER

RESTRICTIONS ON USE: DO NOT USE IN A MANNER INCONSISTENT WITH THE LABEL.

LABEL BRAND: U S CHEMICAL

SDS 105709P CODE 4332563, 4362797, 4367483, 4367512, 4367547

U S CHEMICAL 316 HART STREET WATERTOWN, WI 53094 USA
MEDICAL EMERGENCY: 1-866-923-4913 USA
SPILL EMERGENCY: 1-800-424-9300 USA
PRODUCT INFORMATION: 1-800-558-9566 USA (8 A.M. TO 5 P.M. CST MONDAY TO FRIDAY)
INTERNET ADDRESS: WWW.USCHEMICAL.COM

2. HAZARD(S) IDENTIFICATION

CLASSIFICATION: SKIN CORROSION (CATEGORY 1B), EYE DAMAGE (CATEGORY 1), CORROSIVE TO METALS (CATEGORY 1), ACUTE TOXICITY: ORAL (CATEGORY 4)

LABEL ELEMENTS

SIGNAL WORD: DANGER

PICTOGRAMS: CORROSION, EXCLAMATION MARK



HAZARD STATEMENTS: CAUSES SEVERE SKIN BURNS AND SERIOUS EYE DAMAGE.
MAY BE CORROSIVE TO METALS. HARMFUL IF SWALLOWED.

PRECAUTIONARY STATEMENTS: Wear chemical-splash safety goggles, chemical-resistant protective gloves and protective footwear. Avoid contact with eyes, skin and clothing. Do not breathe vapors or mists. Do not eat, drink, or smoke when using this product. Wash hands and affected areas thoroughly after handling. Absorb spillage to prevent material damage. Mix only with water. Do not mix with any other product or chemical. Can react to release hazardous gases. **FIRST AID: IF IN EYES:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing for at least 15 minutes. **IF ON SKIN (OR HAIR):** Take off immediately all contaminated clothing. Rinse skin with water for at least 15 minutes. Wash contaminated clothing before reuse. **IF SWALLOWED:** Rinse mouth. Call a Poison Center or physician if you feel unwell. Do NOT induce vomiting. If conscious, dilute by drinking up to a cupful of milk or water as tolerated. **IF INHALED:** Remove person to fresh air and keep comfortable for breathing. **START FIRST AID. IMMEDIATELY CALL A POISON CENTER OR PHYSICIAN.**
EMERGENCY TELEPHONE: 1-866-923-4913

Storage: Store tightly closed only in original corrosive-resistant plastic container. Store locked up.

Disposal: Dispose of contents in accordance with all federal, state and local applicable laws and regulations.

KEEP OUT OF REACH OF CHILDREN. FOR COMMERCIAL AND INDUSTRIAL USE ONLY.

HAZARDS NOT OTHERWISE CLASSIFIED: Not applicable.

3. COMPOSITION / INFORMATION ON INGREDIENTS

HAZARDOUS INGREDIENT(S)	CAS #	WEIGHT %
SODIUM HYDROXIDE	1310-73-2	37.5
STATE RIGHT TO KNOW: SEE SECTION 15 FOR STATE RTK CHEMICAL NAMES IN MIXTURE.		

4. FIRST-AID MEASURES

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IF IN EYES: RINSE CAUTIOUSLY WITH WATER FOR SEVERAL MINUTES. REMOVE CONTACT LENSES, IF PRESENT AND EASY TO DO. CONTINUE RINSING FOR AT LEAST 15 MINUTES.
IF ON SKIN (OR HAIR): TAKE OFF IMMEDIATELY ALL CONTAMINATED CLOTHING. RINSE SKIN WITH WATER FOR AT LEAST 15 MINUTES. WASH CONTAMINATED CLOTHING BEFORE REUSE.
IF SWALLOWED: RINSE MOUTH. CALL A POISON CENTER OR PHYSICIAN IF YOU FEEL UNWELL. **Do NOT** INDUCE VOMITING. IF CONSCIOUS, DILUTE BY DRINKING UP TO A CUPFUL OF MILK OR WATER AS TOLERATED.
IF INHALED: REMOVE PERSON TO FRESH AIR AND KEEP COMFORTABLE FOR BREATHING.
START FIRST AID. IMMEDIATELY CALL A POISON CENTER OR PHYSICIAN.
EMERGENCY TELEPHONE: 1-866-923-4913

MOST IMPORTANT SYMPTOMS / EFFECTS: CAUSES SEVERE SKIN BURNS AND SERIOUS EYE DAMAGE. MAY CAUSE BLINDNESS WITHOUT IMMEDIATE FIRST AID. HARMFUL IF SWALLOWED. CAUSES BURNS AND SERIOUS DAMAGE TO MOUTH, THROAT AND STOMACH. CORROSIVE TO ALL BODY TISSUES.

MEDICAL CONDITIONS AGGRAVATED: NONE KNOWN.

NOTE TO PHYSICIAN: CALL 1-866-923-4913 FOR EXPOSURE MANAGEMENT ASSISTANCE.

5. FIRE-FIGHTING MEASURES

CHEMICAL HAZARDS: CORROSIVE. NON-FLAMMABLE.

COMBUSTION PRODUCT HAZARDS: OXIDES OF CARBON AND OTHER FUMES.

METHODS: SELECT EXTINGUISHER AND METHODS BASED ON FIRE SIZE AND TYPE.

EQUIPMENT: WEAR SCBA AND FULL PROTECTIVE GEAR AS CONDITIONS WARRANT.

NFPA RATING: HEALTH-3/FLAMMABILITY-0/ INSTABILITY-0/SPECIAL HAZARD-N.A.P.

SUITABLE EXTINGUISHERS: WATER, DRY CHEMICAL, CO2 OR FOAM SUITABLE FOR FIRE.

UNSUITABLE EXTINGUISHERS: NO RESTRICTIONS BASED ON CHEMICAL HAZARDS.

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS: EVACUATE UNPROTECTED PERSONNEL FROM AREA. WEAR PERSONAL PROTECTION INCLUDING RUBBER BOOTS. SEE SECTION 8. VENTILATE AREA IF NEEDED. BE CAREFUL NOT TO SLIP. WASH THOROUGHLY AFTER CLEAN-UP.

ENVIRONMENTAL PRECAUTIONS: PREVENT SPILL FROM ENTERING DRAIN, STORM SEWER OR SURFACE WATERWAY. PREVENT WATER AND SOIL CONTAMINATION.

CLEAN-UP METHODS: SMALL SPILLS MAY BE WIPED UP AND RINSED WITH WATER. FOR LARGER SPILLS, DIKE TO CONTAIN. PUMP TO LABELED CONTAINER OR ABSORB SPILLAGE AND SCOOP UP WITH INERT ABSORBENT MATERIAL. AFTER SPILL COLLECTION, RINSE AREA WITH WATER AND FOLLOW WITH NORMAL CLEAN-UP PROCEDURES.

7. HANDLING AND STORAGE

HANDLING: FOLLOW ALL LABEL DIRECTIONS. INSTRUCT PERSONNEL ABOUT PROPER USE, HAZARDS, PRECAUTIONS, AND FIRST AID MEASURES. AVOID INHALATION, INGESTION, AND CONTACT WITH SKIN, EYES AND CLOTHING. DO NOT TASTE OR SWALLOW. REMOVE AND WASH CONTAMINATED CLOTHING AND FOOTWEAR BEFORE REUSE. PRODUCT RESIDUE MAY REMAIN IN EMPTY CONTAINERS. HANDLE CAREFULLY TO AVOID DAMAGING CONTAINER.

STORAGE: STORE TIGHTLY CLOSED ONLY IN ORIGINAL CORROSIVE-RESISTANT PLASTIC CONTAINER. STORE LOCKED UP. STORE AT AMBIENT TEMPERATURES IN A DRY AREA OUT OF DIRECT SUNLIGHT. PROTECT FROM FREEZING. ROTATE STOCK REGULARLY. KEEP AWAY FROM FOOD AND DRINK. KEEP OUT OF REACH OF CHILDREN.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

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EXPOSURE LIMITS: SODIUM HYDROXIDE = 2 MG/M3 CEILING (ACGIH), 2 MG/M3 TWA (OSHA)
ENGINEERING CONTROLS: NONE REQUIRED. GENERAL ROOM VENTILATION IS TYPICALLY ADEQUATE.

PERSONAL PROTECTION

EYES: SAFETY GOGGLES (INDIRECT-VENTED OR NON-VENTED) AND AN EYE-WASH STATION.
HANDS: CHEMICAL-RESISTANT PROTECTIVE GLOVES (RUBBER OR NEOPRENE).
RESPIRATORY: SUITABLE RESPIRATOR IF MISTS/VAPORS ARE NOT CONTROLLED BY VENTILATION.
FEET: RUBBER BOOTS DURING SPILL CLEAN-UP AND WHEN EXPOSURE IS POSSIBLE.
BODY: RUBBER FULL-COVER PROTECTIVE CLOTHING WHEN EXPOSURE IS POSSIBLE.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: COLORLESS LIQUID	AUTO-IGNITION TEMPERATURE: N.AV.
ODOR: AMMONIA	DECOMPOSITION TEMPERATURE: N.AV.
pH CONCENTRATE: ABOVE 13.0 (BASIC)	EXPLOSIVE LIMITS (LEL/UEL): NONE
pH @ 2500 PPM SOLUTION: N.AV.	EVAPORATION RATE: N.AV.
pH @ USE DILUTION: N.AV.	FLAMMABILITY (SOLID, GAS): N.AP.
PHYSICAL STATE: LIQUID	FLASH POINT: NONE
RELATIVE DENSITY (WATER): 1.443	INITIAL BOILING POINT/RANGE: N.AV.
SOLUBILITY (WATER): COMPLETE	MELTING POINT/FREEZING POINT: N.AV.
VAPOR PRESSURE: N.AV.	ODOR THRESHOLD: N.AV.
VAPOR DENSITY: N. AV.	PARTITION COEFF. (N-OCTANOL/WATER): N.AV
VISCOSITY: NON-VISCOUS	OTHER: N.AV.

10. STABILITY AND REACTIVITY

REACTIVITY: MIXING WITH INCOMPATIBLES CAN RELEASE HEAT + HAZARDOUS GASES.
CHEMICAL STABILITY: STABLE.
POSSIBILITY OF HAZARDOUS REACTIONS: SEE REACTIVITY. WILL NOT POLYMERIZE.
CONDITIONS TO AVOID: TEMPERATURES BELOW 35°F (1.6°C) OR ABOVE 120°F (49°C).
MATERIALS TO AVOID: ACIDS, BLEACH AND METALS. MIX ONLY WITH WATER.
HAZARDOUS DECOMPOSITION PRODUCTS: NONE UNDER NORMAL CONDITIONS.

11. TOXICOLOGICAL INFORMATION

ROUTES OF EXPOSURE: EYES, SKIN, INGESTION, INHALATION.
INFORMATION ON ROUTES OF EXPOSURE: NO LC50/LD50 TEST DATA ON MIXTURE.
ACUTE EFFECTS /SYMPTOMS: CORROSIVE TO ALL BODY TISSUES.
EYES: CAUSES SERIOUS EYE DAMAGE. MAY CAUSE PAIN, REDNESS AND WATERING.
SKIN: CAUSES SEVERE SKIN BURNS. MAY CAUSE DELAYED PAIN, REDNESS AND BLISTERING.
INGESTION: CAUSES BURNS AND SERIOUS DAMAGE TO MOUTH, THROAT AND STOMACH.
INHALATION: MAY CAUSE CORROSIVE EFFECTS TO NOSE, THROAT, AND RESPIRATORY SYSTEM.
CHRONIC / OTHER EFFECTS: NO REPORTABLE GERM CELL MUTAGENS, SKIN SENSITIZERS, RESPIRATORY SENSITIZERS, REPRODUCTIVE TOXINS OR ASPIRATION HAZARDS.
SPECIFIC TARGET ORGANS (SINGLE/REPEATED): NONE KNOWN.
NUMERICAL MEASURES OF TOXICITY: ATE_{mix} (ORAL-RAT) = 1330 MG / KG
CARCINOGENS: NO REPORTABLE ACGIH, IARC, NTP, OR OSHA CARCINOGENS.

12. ECOLOGICAL INFORMATION

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ECOTOXICITY / CHEMICAL FATE: NOT AVAILABLE.**13. DISPOSAL CONSIDERATIONS**

DISPOSAL METHOD: UNDILUTED PRODUCT IS REGULATED UNDER ENVIRONMENTAL AND TRANSPORTATION LAWS AS A CORROSIVE WASTE (RCRA CLASS D002). DISPOSE OF CONTENTS IN ACCORDANCE WITH ALL FEDERAL, STATE, AND LOCAL APPLICABLE LAWS AND REGULATIONS. CONSULT STATE AND LOCAL AUTHORITIES FOR RESTRICTIONS ON DISPOSAL OF CHEMICAL WASTE. MANAGE CHEMICAL WASTES THROUGH AN APPROVED WASTE TREATMENT FACILITY. DO NOT REUSE EMPTY CONTAINER. RINSE EMPTY CONTAINER THOROUGHLY WITH WATER BEFORE DISCARDING CONTAINER IN ACCORDANCE WITH CURRENT LOCAL COMMUNITY CODES. PLEASE RECYCLE EMPTY CONTAINER WHENEVER POSSIBLE.

14. TRANSPORT INFORMATION**DOT / IMDG / TDG:**

UN3266, CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (SODIUM HYDROXIDE), 8, II

15. REGULATORY INFORMATION**EPA CERCLA RQ:** SODIUM HYDROXIDE = 1000 LB**EPA REGISTERED:** NO**OSHA HAZARDOUS:** YES**PHOSPHORUS CONTENT:** SEE LABEL**PROPOSITION 65:** NO**SARA 311/312 HAZARDS:** ACUTE**SARA 313 CHEMICALS:** NO**STATE RIGHT TO KNOW:** WATER/7732-18-5, SODIUM HYDROXIDE/1310-73-2, PENTASODIUM AMINOTRIMETHYLENE PHOSPHONATE/2235-43-0**TSCA INVENTORY STATUS:** ALL COMPONENTS ARE LISTED ON THE INVENTORY.**VOC:** 0.00% CALCULATION METHOD USED IS BASED ON CALIFORNIA ARB STANDARD.**16. OTHER INFORMATION****PREPARATION DATE:** 2-18-14 **PREPARED BY:** RC**REVISED SECTION:** 16**ABBREVIATIONS:** N.AV. = NOT AVAILABLE

N.AP. = NOT APPLICABLE

NOTICE TO READER

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1. IDENTIFICATION

PRODUCT NAME: AQUA-SOLV
RECOMMENDED USE: DELIMER
RESTRICTIONS ON USE: DO NOT USE IN A MANNER INCONSISTENT WITH THE LABEL.
LABEL BRAND: U S CHEMICAL
SDS 5298723B CODE 057490, 057494, 4418922

U S CHEMICAL 316 HART STREET WATERTOWN, WI 53094 USA
MEDICAL EMERGENCY: 1-866-923-4913 USA
SPILL EMERGENCY: 1-800-424-9300 USA
PRODUCT INFORMATION: 1-800-558-9566 USA (8 A.M. TO 5 P.M. CST MONDAY TO FRIDAY)
INTERNET ADDRESS: WWW.USCHEMICAL.COM

2. HAZARD(S) IDENTIFICATION

CLASSIFICATION: SKIN CORROSION (CATEGORY 1C), EYE DAMAGE (CATEGORY 1)
CORROSIVE TO METALS (CATEGORY 1)



LABEL ELEMENTS

SIGNAL WORD: DANGER

PICTOGRAMS: CORROSION

HAZARD STATEMENTS: CAUSES SEVERE SKIN BURNS AND SERIOUS EYE DAMAGE.
MAY BE CORROSIVE TO METALS.

PRECAUTIONARY STATEMENTS: Wear chemical-splash safety goggles, chemical-resistant protective gloves and protective footwear. Avoid contact with eyes, skin and clothing. Do not breathe vapors or mists. Do not eat, drink, or smoke when using this product. Wash hands and affected areas thoroughly after handling. Absorb spillage to prevent material damage. Mix only with water. Do not mix with ammonia, bleach or other chlorinated compounds. Can react to release hazardous gases.

FIRST AID: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing for at least 15 minutes. **IF ON SKIN (OR HAIR):** Take off immediately all contaminated clothing. Rinse skin with water for at least 15 minutes. Wash contaminated clothing before reuse. **IF SWALLOWED:** Rinse mouth. **Do NOT** induce vomiting. If conscious, dilute by drinking up to a cupful of milk or water as tolerated. **IF INHALED:** Remove person to fresh air and keep comfortable for breathing.

START FIRST AID. IMMEDIATELY CALL A POISON CENTER OR PHYSICIAN.

EMERGENCY TELEPHONE: 1-866-923-4913

Storage: Store tightly closed only in original corrosive-resistant plastic container. Store locked up.

Disposal: Dispose of contents in accordance with all federal, state and local applicable laws and regulations.

KEEP OUT OF REACH OF CHILDREN. FOR COMMERCIAL AND INDUSTRIAL USE ONLY.

HAZARDS NOT OTHERWISE CLASSIFIED: Not applicable.

3. COMPOSITION / INFORMATION ON INGREDIENTS

HAZARDOUS INGREDIENT(S)	CAS #	WEIGHT %
UREA HYDROCHLORIDE	506-89-8	11.4
STATE RIGHT TO KNOW: SEE SECTION 15 FOR STATE RTK CHEMICAL NAMES IN MIXTURE.		

4. FIRST-AID MEASURES

Page 2 of 4

IF IN EYES: RINSE CAUTIOUSLY WITH WATER FOR SEVERAL MINUTES. REMOVE CONTACT LENSES, IF PRESENT AND EASY TO DO. CONTINUE RINSING FOR AT LEAST 15 MINUTES.
IF ON SKIN (OR HAIR): TAKE OFF IMMEDIATELY ALL CONTAMINATED CLOTHING. RINSE SKIN WITH WATER FOR AT LEAST 15 MINUTES. WASH CONTAMINATED CLOTHING BEFORE REUSE.
IF SWALLOWED: RINSE MOUTH. **Do NOT** INDUCE VOMITING. IF CONSCIOUS, DILUTE BY DRINKING UP TO A CUPFUL OF MILK OR WATER AS TOLERATED. **IF INHALED:** REMOVE PERSON TO FRESH AIR AND KEEP COMFORTABLE FOR BREATHING.
START FIRST AID. IMMEDIATELY CALL A POISON CENTER OR PHYSICIAN.
EMERGENCY TELEPHONE: 1-866-923-4913

MOST IMPORTANT SYMPTOMS / EFFECTS: CAUSES SEVERE SKIN BURNS AND SERIOUS EYE DAMAGE. MAY CAUSE BLINDNESS WITHOUT IMMEDIATE FIRST AID. HARMFUL IF SWALLOWED. CAUSES BURNS AND SERIOUS DAMAGE TO MOUTH, THROAT AND STOMACH. CORROSIVE TO ALL BODY TISSUES.

MEDICAL CONDITIONS AGGRAVATED: NONE KNOWN.

NOTE TO PHYSICIAN: CALL 1-866-923-4913 FOR EXPOSURE MANAGEMENT ASSISTANCE.

5. FIRE-FIGHTING MEASURES

CHEMICAL HAZARDS: CORROSIVE. NON-FLAMMABLE.

COMBUSTION PRODUCT HAZARDS: OXIDES OF CARBON AND OTHER FUMES.

METHODS: SELECT EXTINGUISHER AND METHODS BASED ON FIRE SIZE AND TYPE.

EQUIPMENT: WEAR SCBA AND FULL PROTECTIVE GEAR AS CONDITIONS WARRANT.

NFPA RATING: HEALTH-3/FLAMMABILITY-0/ INSTABILITY-0/SPECIAL HAZARD-N.AP.

SUITABLE EXTINGUISHERS: WATER, DRY CHEMICAL, CO2 OR FOAM SUITABLE FOR FIRE.

UNSUITABLE EXTINGUISHERS: NO RESTRICTIONS BASED ON CHEMICAL HAZARDS.

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS: EVACUATE UNPROTECTED PERSONNEL FROM AREA.

WEAR PERSONAL PROTECTION INCLUDING RUBBER BOOTS. SEE SECTION 8. VENTILATE AREA IF NEEDED. BE CAREFUL NOT TO SLIP. WASH THOROUGHLY AFTER CLEAN-UP.

ENVIRONMENTAL PRECAUTIONS: PREVENT SPILL FROM ENTERING DRAIN, STORM SEWER OR SURFACE WATERWAY. PREVENT WATER AND SOIL CONTAMINATION.

CLEAN-UP METHODS: SMALL SPILLS MAY BE WIPED UP AND RINSED WITH WATER. FOR LARGER SPILLS, DIKE TO CONTAIN. PUMP TO LABELED CONTAINER OR ABSORB SPILLAGE AND SCOOP UP WITH INERT ABSORBENT MATERIAL. AFTER SPILL COLLECTION, RINSE AREA WITH WATER AND FOLLOW WITH NORMAL CLEAN-UP PROCEDURES.

7. HANDLING AND STORAGE

HANDLING: FOLLOW ALL LABEL DIRECTIONS. INSTRUCT PERSONNEL ABOUT PROPER USE, HAZARDS, PRECAUTIONS, AND FIRST AID MEASURES. AVOID INHALATION, INGESTION, AND CONTACT WITH SKIN, EYES AND CLOTHING. DO NOT TASTE OR SWALLOW. REMOVE AND WASH CONTAMINATED CLOTHING AND FOOTWEAR BEFORE REUSE. PRODUCT RESIDUE MAY REMAIN IN EMPTY CONTAINERS. HANDLE CAREFULLY TO AVOID DAMAGING CONTAINER.

STORAGE: STORE TIGHTLY CLOSED ONLY IN ORIGINAL CORROSIVE-RESISTANT PLASTIC CONTAINER. STORE LOCKED UP. STORE AT AMBIENT TEMPERATURES IN A DRY AREA OUT OF DIRECT SUNLIGHT. PROTECT FROM FREEZING. ROTATE STOCK REGULARLY. KEEP AWAY FROM FOOD AND DRINK. KEEP OUT OF REACH OF CHILDREN.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Page 3 of 4

EXPOSURE LIMITS: UREA HYDROCHLORIDE = NONE**ENGINEERING CONTROLS:** NONE REQUIRED. GENERAL ROOM VENTILATION IS TYPICALLY ADEQUATE.**PERSONAL PROTECTION****EYES:** SAFETY GOGGLES (INDIRECT-VENTED OR NON-VENTED) AND AN EYE-WASH STATION.**HANDS:** CHEMICAL-RESISTANT PROTECTIVE GLOVES (RUBBER OR NEOPRENE).**RESPIRATORY:** SUITABLE RESPIRATOR IF MISTS/VAPORS ARE NOT CONTROLLED BY VENTILATION.**FEET:** RUBBER BOOTS DURING SPILL CLEAN-UP AND WHEN EXPOSURE IS POSSIBLE.**BODY:** RUBBER FULL-COVER PROTECTIVE CLOTHING WHEN EXPOSURE IS POSSIBLE.**9. PHYSICAL AND CHEMICAL PROPERTIES****APPEARANCE:** ORANGE LIQUID**ODOR:** NONE ADDED**pH CONCENTRATE:** BELOW 2.0 (ACIDIC)**pH @ 2500 PPM SOLUTION:** N.AV.**pH @ USE DILUTION:** N.AV.**PHYSICAL STATE:** LIQUID**RELATIVE DENSITY (WATER):** 1.045**SOLUBILITY (WATER):** COMPLETE**VAPOR PRESSURE:** N.AV.**VAPOR DENSITY:** N. AV.**VISCOSITY:** NON-VISCOUS**AUTO-IGNITION TEMPERATURE:** N.AV.**DECOMPOSITION TEMPERATURE:** N.AV.**EXPLOSIVE LIMITS (LEL/UEL):** NONE**EVAPORATION RATE:** N.AV.**FLAMMABILITY (SOLID, GAS):** N.AP.**FLASH POINT:** NONE**INITIAL BOILING POINT/RANGE:** N.AV.**MELTING POINT/FREEZING POINT:** N.AV.**ODOR THRESHOLD:** N.AV.**PARTITION COEFF. (N-OCTANOL/WATER):** N.AV**OTHER:** N.AV.**10. STABILITY AND REACTIVITY****REACTIVITY:** MIXING WITH INCOMPATIBLES CAN RELEASE HEAT + HAZARDOUS GASES.**CHEMICAL STABILITY:** STABLE.**POSSIBILITY OF HAZARDOUS REACTIONS:** SEE REACTIVITY. WILL NOT POLYMERIZE.**CONDITIONS TO AVOID:** TEMPERATURES BELOW 35°F (1.6°C) OR ABOVE 120°F (49°C).**MATERIALS TO AVOID:** BLEACH, METAL AND OTHER CLEANERS. MIX ONLY WITH WATER.**HAZARDOUS DECOMPOSITION PRODUCTS:** NONE UNDER NORMAL CONDITIONS.**11. TOXICOLOGICAL INFORMATION****ROUTES OF EXPOSURE:** EYES, SKIN, INGESTION, INHALATION.**INFORMATION ON ROUTES OF EXPOSURE:** NO LC50/LD50 TEST DATA ON MIXTURE.**ACUTE EFFECTS /SYMPTOMS:** CORROSIVE TO ALL BODY TISSUES.**EYES:** CAUSES SERIOUS EYE DAMAGE. MAY CAUSE PAIN, REDNESS AND WATERING.**SKIN:** CAUSES SEVERE SKIN BURNS. MAY CAUSE DELAYED PAIN, REDNESS AND BLISTERING.**INGESTION:** CAUSES BURNS AND SERIOUS DAMAGE TO MOUTH, THROAT AND STOMACH.**INHALATION:** MAY CAUSE CORROSIVE EFFECTS TO NOSE, THROAT, AND RESPIRATORY SYSTEM.**CHRONIC / OTHER EFFECTS:** NO REPORTABLE GERM CELL MUTAGENS, SKIN SENSITIZERS, RESPIRATORY SENSITIZERS, REPRODUCTIVE TOXINS OR ASPIRATION HAZARDS.**SPECIFIC TARGET ORGANS (SINGLE/REPEATED):** NONE KNOWN.**NUMERICAL MEASURES OF TOXICITY:** ATE_{mix} (ORAL-RAT) = 6135 MG / KG**CARCINOGENS:** NO REPORTABLE ACGIH, IARC, NTP, OR OSHA CARCINOGENS.

12. ECOLOGICAL INFORMATION

Page 4 of 4

ECOTOXICITY / CHEMICAL FATE: NOT AVAILABLE.**13. DISPOSAL CONSIDERATIONS**

DISPOSAL METHOD: UNDILUTED PRODUCT IS REGULATED UNDER ENVIRONMENTAL AND TRANSPORTATION LAWS AS A CORROSIVE WASTE (RCRA CLASS D002). DISPOSE OF CONTENTS IN ACCORDANCE WITH ALL FEDERAL, STATE, AND LOCAL APPLICABLE LAWS AND REGULATIONS. CONSULT STATE AND LOCAL AUTHORITIES FOR RESTRICTIONS ON DISPOSAL OF CHEMICAL WASTE. MANAGE CHEMICAL WASTES THROUGH AN APPROVED WASTE TREATMENT FACILITY. DO NOT REUSE EMPTY CONTAINER. RINSE EMPTY CONTAINER THOROUGHLY WITH WATER BEFORE DISCARDING CONTAINER IN ACCORDANCE WITH CURRENT LOCAL COMMUNITY CODES. PLEASE RECYCLE EMPTY CONTAINER WHENEVER POSSIBLE.

14. TRANSPORT INFORMATION

DOT / IMDG / TDG: UN3265, CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (UREA HYDROCHLORIDE), 8, III, LTD. QTY.

PACK SIZE OVER 5 L: UN3265, CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (UREA HYDROCHLORIDE), 8, III

15. REGULATORY INFORMATION

EPA CERCLA RQ: NO

EPA REGISTERED: NO

OSHA HAZARDOUS: YES

PHOSPHORUS CONTENT: 0.00%

PROPOSITION 65: NO

SARA 311/312 HAZARDS: ACUTE

SARA 313 CHEMICALS: NO

STATE RIGHT TO KNOW: WATER/7732-18-5, UREA HYDROCHLORIDE/506-89-8

TSCA INVENTORY STATUS: ALL COMPONENTS ARE LISTED ON THE INVENTORY.

VOC: 0.00% CALCULATION METHOD USED IS BASED ON CALIFORNIA ARB STANDARD.

16. OTHER INFORMATION

PREPARATION DATE: 1-13-16

PREPARED BY: RC

REVISED SECTION: 16

ABBREVIATIONS: N.AV. = NOT AVAILABLE

N.AP. = NOT APPLICABLE

NOTICE TO READER

THIS DOCUMENT HAS BEEN PREPARED USING DATA FROM SOURCES CONSIDERED TECHNICALLY RELIABLE. IT DOES NOT CONSTITUTE A WARRANTY, EXPRESS OR IMPLIED, AS TO THE ACCURACY OF THE INFORMATION CONTAINED WITHIN. ACTUAL CONDITIONS OF USE AND HANDLING ARE BEYOND SELLER'S CONTROL. USER IS RESPONSIBLE FOR EVALUATING ALL AVAILABLE INFORMATION WHEN USING PRODUCT FOR ANY PARTICULAR USE AND TO COMPLY WITH ALL FEDERAL, STATE, PROVINCIAL AND LOCAL LAWS AND REGULATIONS.

SAFETY DATA SHEET

Issue Date 22-Jun-2015

Revision Date 08-Jun-2016

Version 1

1. PRODUCT AND COMPANY IDENTIFICATION

Product identifier

Product Name Joem PSB

Other means of identification

Product Code JC-014-021

Details of the supplier of the safety data sheet

Company Name Joem Chem LLC
761 N. 17th Street
Suite 24
St. Charles, IL 60174
888-584-7255

Emergency telephone number

Emergency Telephone Chemtrec 1-800-424-9300

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status

This mixture has been classified according to the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute toxicity - Oral	Not classified
Acute toxicity - Dermal	Not classified

Label elements

Emergency Overview

Appearance Clear

Physical state Liquid

Odor Mild

Precautionary Statements - Response

Immediately call a POISON CENTER or doctor/physician
Specific Treatment (See Section 4 on the SDS)

Hazards not otherwise classified (HNOC)

Other Information

Unknown Acute Toxicity 2.5% of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	Weight-%	Trade Secret
Surfactant Blend	Proprietary	50-75	*

*The exact percentage (concentration) of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

First aid measures

Skin Contact	Wash off immediately with plenty of water. Wash skin with soap and water.
Eye contact	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.
Inhalation	Remove to fresh air.
Ingestion	Clean mouth with water and drink afterwards plenty of water.

Most important symptoms and effects, both acute and delayed

Symptoms	Any additional important symptoms and effects are described in Section 11: Toxicology Information.
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Indication of any immediate medical attention and special treatment needed

Note to physicians	Treat symptomatically.
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5. FIRE-FIGHTING MEASURES**Suitable extinguishing media**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media Caution: Use of water spray when fighting fire may be inefficient.

Specific hazards arising from the chemical

No Information available.

Explosion data

Sensitivity to Mechanical Impact None.

Sensitivity to Static Discharge None.

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES**Personal precautions, protective equipment and emergency procedures**

Personal precautions	Ensure adequate ventilation, especially in confined areas.
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Environmental precautions

Environmental precautions	See Section 12 for additional ecological information.
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Methods and material for containment and cleaning up

Methods for containment	Prevent further leakage or spillage if safe to do so.
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Methods for cleaning up	Pick up and transfer to properly labeled containers.
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7. HANDLING AND STORAGE**Precautions for safe handling**

Advice on safe handling Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place.

Incompatible materials None known based on information supplied.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Appropriate engineering controls

Engineering Controls Showers, Eyewash stations & Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/face protection No special technical protective measures are necessary.

Skin and body protection No special technical protective measures are necessary. Wear protective gloves and protective clothing if needed.

Respiratory protection If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

General Hygiene Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	Liquid
Appearance	Clear
Color	Colorless
Odor	Mild
Odor threshold	No Information available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	8.0 - 9.0	
Specific Gravity	1.01	
Viscosity	No Information available	
Melting point/freezing point	No Information available	
Flash point	Above 200°F	
Boiling point / boiling range	>= 212 ° F (at 760 mm Hg)	
Evaporation rate	No Information available	
Flammability (solid, gas)	No data available	
Flammability Limits in Air		
Upper flammability limit:	No Information available	
Lower flammability limit:	No Information available	
Vapor pressure	No Information available	
Vapor density	No Information available	
Water solubility	Complete	

Partition coefficient	No Information available
Autoignition temperature	No Information available
Decomposition temperature	No Information available

Other Information

Density Lbs/Gal	8.42
VOC Content (%)	Not Applicable

10. STABILITY AND REACTIVITY**Reactivity**

No data available

Chemical stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

None under normal processing.

Conditions to avoid

Extremes of temperature and direct sunlight.

Incompatible materials

None known based on information supplied.

Hazardous Decomposition Products

None known based on information supplied.

11. TOXICOLOGICAL INFORMATION**Information on likely routes of exposure****Product Information**

Inhalation	No data available. Avoid breathing vapors or mists.
Eye contact	No data available. Avoid contact with eyes.
Skin Contact	Causes mild skin irritation. Prolonged or repeated contact may dry skin and cause irritation.
Ingestion	No data available. Do not taste or swallow. Not an expected route of exposure.

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Surfactant Blend Propreitary	= 1600 mg/kg (Rat)	-	-

Information on toxicological effects

Symptoms	No Information available.
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Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization	No Information available.
Germ cell mutagenicity	No Information available.
Carcinogenicity	No Information available.
Reproductive toxicity	No Information available.
STOT - single exposure	No Information available.
STOT - repeated exposure	No Information available.
Aspiration hazard	No Information available.

Numerical measures of toxicity - Product Information

Unknown Acute Toxicity 2.5% of the mixture consists of ingredient(s) of unknown toxicity

The following values are calculated based on chapter 3.1 of the GHS document .

ATEmix (oral) 25,097.00 mg/kg

12. ECOLOGICAL INFORMATION

Ecotoxicity

6.9% of the mixture consists of components(s) of unknown hazards to the aquatic environment

Chemical Name	Algae/aquatic plants	Fish	Crustacea
Surfactant Blend Proprietary	1.0 - 10.0: 72 h Desmodesmus subspicatus mg/L EC50 0.55: 96 h Desmodesmus subspicatus mg/L EC50	1.0 - 10.0: 96 h Brachydanio rerio mg/L LC50 2: 96 h Brachydanio rerio mg/L LC50 semi-static	6.5: 48 h Daphnia magna mg/L EC50

Persistence and degradability

No Information available.

Bioaccumulation

No Information available.

Other adverse effects

No Information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated packaging Do not reuse container.

14. TRANSPORT INFORMATION

The basic description below is specific to the container size. This information is provided for at a glance DOT information. Please refer to the container and/or shipping papers for the appropriate shipping description before tendering this material for shipment. For additional information, please contact the distributor listed in section 1 of this SDS.

DOT Not regulated

15. REGULATORY INFORMATION

International Inventories

TSCA Complies
DSL/NDL Complies

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDL - Canadian Domestic Substances List/Non-Domestic Substances List

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

SARA 311/312 Hazard Categories

Acute health hazard	No
Chronic Health Hazard	No
Fire hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

US State Regulations**California Proposition 65**

This product does not contain any Proposition 65 chemicals

U.S. EPA Label Information

EPA Pesticide Registration Number Not Applicable

16. OTHER INFORMATION

<u>NFPA</u>	Health hazards 0	Flammability 0	Instability 0	Physical and Chemical Properties Yes
<u>HMIS</u>	Health hazards 0	Flammability 0	Physical hazards 0	Personal protection X

Issue Date 22-Jun-2015

Revision Date 08-Jun-2016

Revision Note

No Information available

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet

SAFETY DATA SHEET

Issue Date 09-Jun-2015

Revision Date 08-Jun-2016

Version 1

1. PRODUCT AND COMPANY IDENTIFICATION

Product identifier

Product Name Joem LB1

Other means of identification

SDS# JC-014-019A

Details of the supplier of the safety data sheet

Company Name Joem Chem LLC
761 N. 17th Street
Suite 24
St. Charles, IL 60174
888-584-7255

Emergency telephone number

Emergency Telephone Chemtrec 1-800-424-9300

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute toxicity - Oral	Not classified
Acute toxicity - Dermal	Not classified
Serious eye damage/eye irritation	Category 2A

Label elements

Emergency Overview

Warning

Hazard statements

Causes serious eye irritation



Appearance Clear

Physical state Liquid

Odor Mild

Precautionary Statements - Prevention

Wash face, hands and any exposed skin thoroughly after handling
Wear protective gloves/protective clothing/eye protection/face protection

Precautionary Statements - Response

Immediately call a POISON CENTER or doctor/physician

Specific Treatment (See Section 4 on the SDS)

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
If eye irritation persists: Get medical advice/attention

Hazards not otherwise classified (HNOC)

Other Information

• Toxic to aquatic life with long lasting effects

• Toxic to aquatic life

Unknown Acute Toxicity

0% of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	Weight-%	Trade Secret
Surfactant Blend	Proprietary	100%	*

*The exact percentage (concentration) of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

First aid measures

Skin Contact

Wash off immediately with plenty of water. Wash skin with soap and water.

Eye contact

Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids.
Consult a physician.

Inhalation

Remove to fresh air.

Ingestion

Clean mouth with water and drink afterwards plenty of water.

Most important symptoms and effects, both acute and delayed

Symptoms

Any additional important symptoms and effects are described in Section 11: Toxicology Information.

Indication of any immediate medical attention and special treatment needed

Note to physicians

Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media Caution: Use of water spray when fighting fire may be inefficient.

Specific hazards arising from the chemical

No Information available.

Explosion data

Sensitivity to Mechanical Impact None.

Sensitivity to Static Discharge None.

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Ensure adequate ventilation, especially in confined areas.

Environmental precautions

Environmental precautions See Section 12 for additional ecological information.

Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Pick up and transfer to properly labeled containers.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place.

Incompatible materials None known based on information supplied.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Appropriate engineering controls

Engineering Controls Showers, Eyewash stations & Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles). Avoid contact with eyes.

Skin and body protection Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

Respiratory protection If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

General Hygiene Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state Liquid

Appearance	Clear
Color	Colorless
Odor	Mild
Odor threshold	No Information available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	7.5 - 8.5	
Specific Gravity	Not Applicable	
Viscosity	No Information available	
Melting point/freezing point	No Information available	
Flash point	No Information available	
Boiling point / boiling range		
Evaporation rate	No Information available	
Flammability (solid, gas)	No data available	
Flammability Limits in Air		
Upper flammability limit:	No Information available	
Lower flammability limit:	No Information available	
Vapor pressure	No Information available	
Vapor density	No Information available	
Water solubility	No Information available	
Partition coefficient	No Information available	
Autoignition temperature	No Information available	
Decomposition temperature	No Information available	

Other Information

Density Lbs/Gal	Not Applicable
VOC Content (%)	Not Applicable

10. STABILITY AND REACTIVITY**Reactivity**

No data available

Chemical stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

None under normal processing.

Conditions to avoid

Extremes of temperature and direct sunlight.

Incompatible materials

None known based on information supplied.

Hazardous Decomposition Products

None known based on information supplied.

11. TOXICOLOGICAL INFORMATION**Information on likely routes of exposure****Product Information**

Inhalation	Avoid breathing vapors or mists. No data available.
Eye contact	Avoid contact with eyes. Causes serious eye irritation.
Skin Contact	Avoid contact with skin. Irritating to skin.

Ingestion

No data available. Do not taste or swallow. Not an expected route of exposure.

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Surfactant Blend Proprietary	= 2590 mg/kg (Rat) = 1310 mg/kg (Rat)	= 1780 µL/kg (Rabbit) = 2 mL/kg (Rabbit)	-

Information on toxicological effects**Symptoms**

No Information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization	No Information available.
Germ cell mutagenicity	No Information available.
Carcinogenicity	No Information available.
Reproductive toxicity	No Information available.
STOT - single exposure	No Information available.
STOT - repeated exposure	No Information available.
Aspiration hazard	No Information available.

Numerical measures of toxicity - Product Information**Unknown Acute Toxicity**

0% of the mixture consists of ingredient(s) of unknown toxicity

12. ECOLOGICAL INFORMATION**Ecotoxicity**

0% of the mixture consists of components(s) of unknown hazards to the aquatic environment

Chemical Name	Algae/aquatic plants	Fish	Crustacea
Surfactant Blend Proprietary	-	5: 96 h Fish mg/L LC50	-

Persistence and degradability

No Information available.

Bioaccumulation

No Information available.

Other adverse effects

No Information available

13. DISPOSAL CONSIDERATIONS**Waste treatment methods****Disposal of wastes**

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated packaging

Do not reuse container.

14. TRANSPORT INFORMATION

The basic description below is specific to the container size. This information is provided for at a glance DOT information. Please refer to the container and/or shipping papers for the appropriate shipping description before tendering this material for shipment. For additional information, please contact the distributor listed in section 1 of this SDS.

DOT

Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances.

15. REGULATORY INFORMATION

International Inventories

TSCA	Complies
DSL/NDSL	Complies

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

US Federal Regulations**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

SARA 311/312 Hazard Categories

Acute health hazard	No
Chronic Health Hazard	No
Fire hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

US State Regulations**California Proposition 65**

This product does not contain any Proposition 65 chemicals

U.S. State Right-to-Know Regulations**U.S. EPA Label Information**

EPA Pesticide Registration Number Not Applicable

16. OTHER INFORMATION

<u>NFPA</u>	Health hazards 1	Flammability 0	Instability 0	Physical and Chemical Properties Yes
<u>HMIS</u>	Health hazards 1	Flammability 0	Physical hazards 0	Personal protection X

Issue Date 09-Jun-2015

Revision Date 08-Jun-2016

Revision Note

No Information available

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet

1. IDENTIFICATION

PRODUCT NAME: LIQUID LAUNDRY SUDS
RECOMMENDED USE: LAUNDRY DETERGENT
RESTRICTIONS ON USE: DO NOT USE IN A MANNER INCONSISTENT WITH THE LABEL.
LABEL BRAND: U S CHEMICAL
SDS 100320 CODE 057275, 057277, 057279, 057281, 4362771

U S CHEMICAL 316 HART STREET WATERTOWN, WI 53094 USA
MEDICAL EMERGENCY: 1-866-923-4913 USA
SPILL EMERGENCY: 1-800-424-9300 USA
PRODUCT INFORMATION: 1-800-558-9566 USA (8 A.M. TO 5 P.M. CST MONDAY TO FRIDAY)
INTERNET ADDRESS: WWW.USCHEMICAL.COM

2. HAZARD(S) IDENTIFICATION

CLASSIFICATION: EYE DAMAGE(CATEGORY 1), SKIN IRRITATION (CATEGORY 2)



LABEL ELEMENTS

SIGNAL WORD: DANGER

PICTOGRAMS: CORROSION

HAZARD STATEMENTS: CAUSES SERIOUS EYE DAMAGE AND SKIN IRRITATION.

PRECAUTIONARY STATEMENTS: Wear chemical-splash safety goggles and chemical-resistant protective gloves. Avoid contact with eyes, skin and clothing. Avoid breathing vapors or mists. Wash hands and affected areas thoroughly after handling. **FIRST AID: IF IN EYES:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing for at least 15 minutes. **IF ON SKIN:** Wash with plenty of water. If skin irritation occurs, get medical attention. Take off contaminated clothing and wash it before reuse. **IF SWALLOWED:** Rinse mouth. **Do NOT** induce vomiting without medical advice. If conscious, dilute by drinking up to a cupful of milk or water as tolerated. **IF INHALED:** Remove person to fresh air and keep comfortable for breathing. **START FIRST AID. IMMEDIATELY CALL A POISON CENTER OR PHYSICIAN.**
EMERGENCY TELEPHONE: 1-866-923-4913

Storage: Keep container tightly closed. Store locked up.

Disposal: Dispose of contents in accordance with all federal, state and local applicable laws and regulations.

KEEP OUT OF REACH OF CHILDREN. FOR COMMERCIAL AND INDUSTRIAL USE ONLY.

HAZARDS NOT OTHERWISE CLASSIFIED: Not applicable.

3. COMPOSITION / INFORMATION ON INGREDIENTS

HAZARDOUS INGREDIENT(S)	CAS #	WEIGHT %
ALCOHOL ETHOXYLATES	68002-97-1	10.0
SODIUM LAURETH SULFATE	9004-82-4	6.0
TRIETHANOLAMINE	102-71-6	1.7
ETHYL ALCOHOL	64-17-5	1.5

STATE RIGHT TO KNOW: SEE SECTION 15 FOR STATE RTK CHEMICAL NAMES IN MIXTURE.

4. FIRST-AID MEASURES

Page 2 of 4

IF IN EYES: RINSE CAUTIOUSLY WITH WATER FOR SEVERAL MINUTES. REMOVE CONTACT LENSES, IF PRESENT AND EASY TO DO. CONTINUE RINSING FOR AT LEAST 15 MINUTES.
IF ON SKIN: WASH WITH PLENTY OF WATER. IF SKIN IRRITATION OCCURS, GET MEDICAL ATTENTION. TAKE OFF CONTAMINATED CLOTHING AND WASH IT BEFORE REUSE.
IF SWALLOWED: RINSE MOUTH. **Do NOT** INDUCE VOMITING WITHOUT MEDICAL ADVICE. IF CONSCIOUS, DILUTE BY DRINKING UP TO A CUPFUL OF MILK OR WATER AS TOLERATED.
IF INHALED: REMOVE PERSON TO FRESH AIR AND KEEP COMFORTABLE FOR BREATHING.
START FIRST AID. IMMEDIATELY CALL A POISON CENTER OR PHYSICIAN.
EMERGENCY TELEPHONE: 1-866-923-4913

MOST IMPORTANT SYMPTOMS / EFFECTS: CAUSES SERIOUS EYE DAMAGE AND SKIN IRRITATION. MAY CAUSE BLINDNESS WITHOUT IMMEDIATE FIRST AID. HARMFUL IF SWALLOWED.

MEDICAL CONDITIONS AGGRAVATED: NONE KNOWN.

NOTE TO PHYSICIAN: CALL 1-866-923-4913 FOR EXPOSURE MANAGEMENT ASSISTANCE.

5. FIRE-FIGHTING MEASURES

CHEMICAL HAZARDS: EYE CORROSIVE AND SKIN IRRITANT. NON-FLAMMABLE.
COMBUSTION PRODUCT HAZARDS: OXIDES OF CARBON AND OTHER FUMES.
METHODS: SELECT EXTINGUISHER AND METHODS BASED ON FIRE SIZE AND TYPE.
EQUIPMENT: WEAR SCBA AND FULL PROTECTIVE GEAR AS CONDITIONS WARRANT.
NFPA RATING: HEALTH-3/FLAMMABILITY-0/ INSTABILITY-0/SPECIAL HAZARD-N.AP.
SUITABLE EXTINGUISHERS: WATER, DRY CHEMICAL, CO2 OR FOAM SUITABLE FOR FIRE.
UNSUITABLE EXTINGUISHERS: NO RESTRICTIONS BASED ON CHEMICAL HAZARDS.

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS: EVACUATE UNPROTECTED PERSONNEL FROM AREA. WEAR PERSONAL PROTECTION INCLUDING RUBBER BOOTS. SEE SECTION 8. VENTILATE AREA IF NEEDED. BE CAREFUL NOT TO SLIP. WASH THOROUGHLY AFTER CLEAN-UP.
ENVIRONMENTAL PRECAUTIONS: PREVENT SPILL FROM ENTERING DRAIN, STORM SEWER OR SURFACE WATERWAY. PREVENT WATER AND SOIL CONTAMINATION.
CLEAN-UP METHODS: SMALL SPILLS MAY BE WIPED UP AND RINSED WITH WATER. FOR LARGER SPILLS, DIKE TO CONTAIN. PUMP TO LABELED CONTAINER OR ABSORB SPILLAGE AND SCOOP UP WITH INERT ABSORBENT MATERIAL. AFTER SPILL COLLECTION, RINSE AREA WITH WATER AND FOLLOW WITH NORMAL CLEAN-UP PROCEDURES.

7. HANDLING AND STORAGE

HANDLING: FOLLOW ALL LABEL DIRECTIONS. INSTRUCT PERSONNEL ABOUT PROPER USE, HAZARDS, PRECAUTIONS, AND FIRST AID MEASURES. AVOID INHALATION, INGESTION, AND CONTACT WITH SKIN, EYES AND CLOTHING. DO NOT TASTE OR SWALLOW. REMOVE AND WASH CONTAMINATED CLOTHING AND FOOTWEAR BEFORE REUSE. PRODUCT RESIDUE MAY REMAIN IN EMPTY CONTAINERS. HANDLE CAREFULLY TO AVOID DAMAGING CONTAINER.
STORAGE: KEEP CONTAINER TIGHTLY CLOSED. STORE LOCKED UP. STORE AT AMBIENT TEMPERATURES IN A DRY AREA OUT OF DIRECT SUNLIGHT. PROTECT FROM FREEZING. ROTATE STOCK REGULARLY. KEEP AWAY FROM FOOD AND DRINK. KEEP OUT OF REACH OF CHILDREN.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

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EXPOSURE LIMITS: ALCOHOL ETHOXYLATES = NONE

SODIUM LAURETH SULFATE = NONE

TRIETHANOLAMINE = 5 MG/M3 TWA (ACGIH)

ETHYL ALCOHOL = 1000 PPM TWA (ACGIH/OSHA)

ENGINEERING CONTROLS: NONE REQUIRED. GENERAL ROOM VENTILATION IS TYPICALLY ADEQUATE.**PERSONAL PROTECTION****EYES:** SAFETY GOGGLES (INDIRECT-VENTED OR NON-VENTED) AND AN EYE-WASH STATION.**HANDS:** CHEMICAL-RESISTANT PROTECTIVE GLOVES (RUBBER OR NEOPRENE).**RESPIRATORY:** SUITABLE RESPIRATOR IF MISTS/VAPORS ARE NOT CONTROLLED BY VENTILATION.**FEET:** NONE REQUIRED. RUBBER BOOTS RECOMMENDED DURING SPILL CLEAN-UP.**BODY:** NONE REQUIRED.**9. PHYSICAL AND CHEMICAL PROPERTIES****APPEARANCE:** BLUE LIQUID**ODOR:** FLORAL**pH CONCENTRATE:** 10.2**pH @ 2500 PPM SOLUTION:** N.AV.**pH @ USE DILUTION:** N.AV.**PHYSICAL STATE:** LIQUID**RELATIVE DENSITY (WATER):** 1.020**SOLUBILITY (WATER):** COMPLETE**VAPOR PRESSURE:** N.AV.**VAPOR DENSITY:** N. AV.**VISCOSITY:** SLIGHTLY VISCOUS**AUTO-IGNITION TEMPERATURE:** N.AV.**DECOMPOSITION TEMPERATURE:** N.AV.**EXPLOSIVE LIMITS (LEL/UEL):** NONE**EVAPORATION RATE:** N.AV.**FLAMMABILITY (SOLID, GAS):** N.AP.**FLASH POINT:** NONE**INITIAL BOILING POINT/RANGE:** N.AV.**MELTING POINT/FREEZING POINT:** N.AV.**ODOR THRESHOLD:** N.AV.**PARTITION COEFF. (N-OCTANOL/WATER):** N.AV**OTHER:** N.AV.**10. STABILITY AND REACTIVITY****REACTIVITY:** NO HAZARD.**CHEMICAL STABILITY:** STABLE.**POSSIBILITY OF HAZARDOUS REACTIONS:** NONE KNOWN. WILL NOT POLYMERIZE.**CONDITIONS TO AVOID:** TEMPERATURES BELOW 35°F (1.6°C) OR ABOVE 120°F (49°C).**MATERIALS TO AVOID:** DIRECT MIXING WITH OTHER CHEMICALS. MIX ONLY WITH WATER.**HAZARDOUS DECOMPOSITION PRODUCTS:** NONE UNDER NORMAL CONDITIONS.**11. TOXICOLOGICAL INFORMATION****ROUTES OF EXPOSURE:** EYES, SKIN, INGESTION, INHALATION.**INFORMATION ON ROUTES OF EXPOSURE:** NO LC50/LD50 TEST DATA ON MIXTURE.**ACUTE EFFECTS /SYMPTOMS****EYES:** CAUSES SERIOUS EYE DAMAGE. MAY CAUSE PAIN, REDNESS AND WATERING.**SKIN:** CAUSES SKIN IRRITATION. MAY CAUSE DELAYED PAIN, DRYING AND REDNESS.**INGESTION:** CAUSES IRRITATION OR BURNS TO MOUTH, THROAT AND STOMACH.**INHALATION:** CAUSES IRRITATION OR BURNS TO NOSE, THROAT + RESPIRATORY SYSTEM.**CHRONIC / OTHER EFFECTS:** NO REPORTABLE GERM CELL MUTAGENS, SKIN SENSITIZERS, RESPIRATORY SENSITIZERS, REPRODUCTIVE TOXINS OR ASPIRATION HAZARDS.**SPECIFIC TARGET ORGANS (SINGLE/REPEATED):** NONE KNOWN.**NUMERICAL MEASURES OF TOXICITY:** ATEmix (ORAL-RAT) = ABOVE 2000 MG / KG**CARCINOGENS:** NO REPORTABLE ACGIH, IARC, NTP, OR OSHA CARCINOGENS.

12. ECOLOGICAL INFORMATION

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ECOTOXICITY / CHEMICAL FATE: NOT AVAILABLE.**13. DISPOSAL CONSIDERATIONS**

DISPOSAL METHOD: DISPOSE OF CONTENTS IN ACCORDANCE WITH ALL FEDERAL, STATE, AND LOCAL APPLICABLE LAWS AND REGULATIONS. CONSULT STATE AND LOCAL AUTHORITIES FOR RESTRICTIONS ON DISPOSAL OF CHEMICAL WASTE. MANAGE CHEMICAL WASTES THROUGH AN APPROVED WASTE TREATMENT FACILITY. DO NOT REUSE EMPTY CONTAINER. RINSE EMPTY CONTAINER THOROUGHLY WITH WATER BEFORE DISCARDING CONTAINER IN ACCORDANCE WITH CURRENT LOCAL COMMUNITY CODES. PLEASE RECYCLE EMPTY CONTAINER WHENEVER POSSIBLE.

14. TRANSPORT INFORMATION**DOT / IMDG / IATA / TDG:** NOT REGULATED**15. REGULATORY INFORMATION**

EPA CERCLA RQ: NO
EPA REGISTERED: NO
OSHA HAZARDOUS: YES
PHOSPHORUS CONTENT: 0.00%
PROPOSITION 65: NO
SARA 311/312 HAZARDS: ACUTE
SARA 313 CHEMICALS: NO
STATE RIGHT TO KNOW: WATER/7732-18-5, ALCOHOL ETHOXYLATES/68002-97-1, SODIUM LAURETH SULFATE/9004-82-4, TRIETHANOLAMINE/102-71-6, ETHYL ALCOHOL/64-17-5
TSCA INVENTORY STATUS: ALL COMPONENTS ARE LISTED ON THE INVENTORY.
VOC: 1.50% CALCULATION METHOD USED IS BASED ON CALIFORNIA ARB STANDARD.

16. OTHER INFORMATION

PREPARATION DATE: 4-4-14 **PREPARED BY:** RC **REVISED SECTION:** 16
ABBREVIATIONS: N.AV. = NOT AVAILABLE N.AP. = NOT APPLICABLE

NOTICE TO READER

THIS DOCUMENT HAS BEEN PREPARED USING DATA FROM SOURCES CONSIDERED TECHNICALLY RELIABLE. IT DOES NOT CONSTITUTE A WARRANTY, EXPRESS OR IMPLIED, AS TO THE ACCURACY OF THE INFORMATION CONTAINED WITHIN. ACTUAL CONDITIONS OF USE AND HANDLING ARE BEYOND SELLER'S CONTROL. USER IS RESPONSIBLE FOR EVALUATING ALL AVAILABLE INFORMATION WHEN USING PRODUCT FOR ANY PARTICULAR USE AND TO COMPLY WITH ALL FEDERAL, STATE, PROVINCIAL AND LOCAL LAWS AND REGULATIONS.

1. IDENTIFICATION

PRODUCT NAME: AMBER SUDS
RECOMMENDED USE: MANUAL DISHWASH
RESTRICTIONS ON USE: DO NOT USE IN A MANNER INCONSISTENT WITH THE LABEL.
LABEL BRAND: U S CHEMICAL
SDS 100463A CODE 057513, 057515, 5116248

U S CHEMICAL 316 HART STREET WATERTOWN, WI 53094 USA
MEDICAL EMERGENCY: 1-866-923-4913 USA
SPILL EMERGENCY: 1-800-424-9300 USA
PRODUCT INFORMATION: 1-800-558-9566 USA (8 A.M. TO 5 P.M. CST MONDAY TO FRIDAY)
INTERNET ADDRESS: WWW.USCHEMICAL.COM

2. HAZARD(S) IDENTIFICATION

CLASSIFICATION: NOT OSHA HAZARDOUS

LABEL ELEMENTS

SIGNAL WORD: NONE

PICTOGRAMS: NONE

HAZARD STATEMENTS: NONE

PRECAUTIONARY STATEMENTS: NONE

FIRST AID: NONE REQUIRED BY OSHA.

SUPPLEMENTAL INFORMATION

May be mildly irritating to eyes. In case of contact, flush with plenty of water. If irritation occurs and persists, get medical attention.

EMERGENCY TELEPHONE: 1-866-923-4913

KEEP OUT OF REACH OF CHILDREN. FOR COMMERCIAL AND INDUSTRIAL USE ONLY.

HAZARDS NOT OTHERWISE CLASSIFIED: Not applicable.

3. COMPOSITION / INFORMATION ON INGREDIENTS

HAZARDOUS INGREDIENT(S)	CAS #	WEIGHT %
NONE	N.AP.	N.AP.
STATE RIGHT TO KNOW: SEE SECTION 15 FOR STATE RTK CHEMICAL NAMES IN MIXTURE.		

4. FIRST-AID MEASURES

Page 2 of 4

IF IN EYES: FLUSH WITH PLENTY OF WATER. IF IRRITATION OCCURS AND PERSISTS, GET MEDICAL ATTENTION.

IF ON SKIN: FLUSH WITH PLENTY OF WATER. IF IRRITATION OCCURS AND PERSISTS, GET MEDICAL ATTENTION.

IF SWALLOWED: IF CONSCIOUS, DILUTE BY DRINKING UP TO A CUPFUL OF MILK OR WATER AS TOLERATED.

IF INHALED: NO SPECIFIC FIRST AID MEASURES ARE REQUIRED.

EMERGENCY TELEPHONE: 1-866-923-4913

MOST IMPORTANT SYMPTOMS / EFFECTS: MAY BE MILDLY IRRITATING TO EYES.

MEDICAL CONDITIONS AGGRAVATED: NONE KNOWN.

NOTE TO PHYSICIAN: CALL 1-866-923-4913 FOR EXPOSURE MANAGEMENT ASSISTANCE.

5. FIRE-FIGHTING MEASURES

CHEMICAL HAZARDS: NON-FLAMMABLE.

COMBUSTION PRODUCT HAZARDS: OXIDES OF CARBON, SULFUR + OTHER FUMES.

METHODS: SELECT EXTINGUISHER AND METHODS BASED ON FIRE SIZE AND TYPE.

EQUIPMENT: WEAR SCBA AND FULL PROTECTIVE GEAR AS CONDITIONS WARRANT.

NFPA RATING: HEALTH-1/FLAMMABILITY-0/ INSTABILITY-0/SPECIAL HAZARD-N.AP.

SUITABLE EXTINGUISHERS: WATER, DRY CHEMICAL, CO2 OR FOAM SUITABLE FOR FIRE.

UNSUITABLE EXTINGUISHERS: NO RESTRICTIONS BASED ON CHEMICAL HAZARDS.

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS: KEEP PEOPLE OUT OF AREA. WEAR RUBBER BOOTS. BE CAREFUL NOT TO SLIP. WASH THOROUGHLY AFTER CLEAN-UP.

ENVIRONMENTAL PRECAUTIONS: PREVENT SPILL FROM ENTERING DRAIN, STORM SEWER OR SURFACE WATERWAY. PREVENT WATER AND SOIL CONTAMINATION.

CLEAN-UP METHODS: SMALL SPILLS MAY BE WIPED UP AND RINSED WITH WATER. FOR LARGER SPILLS, DIKE TO CONTAIN. PUMP TO LABELED CONTAINER OR ABSORB SPILLAGE AND SCOOP UP WITH INERT ABSORBENT MATERIAL. AFTER SPILL COLLECTION, RINSE AREA WITH WATER AND FOLLOW WITH NORMAL CLEAN-UP PROCEDURES.

7. HANDLING AND STORAGE

HANDLING: FOLLOW ALL LABEL DIRECTIONS. INSTRUCT PERSONNEL ABOUT PROPER USE, HAZARDS, PRECAUTIONS, AND FIRST AID MEASURES. AVOID CONTACT WITH EYES. DO NOT TASTE OR SWALLOW. PRODUCT RESIDUE MAY REMAIN ON OR IN EMPTY CONTAINERS. HANDLE CAREFULLY TO AVOID DAMAGING CONTAINER.

STORAGE: KEEP CONTAINER CLOSED WHEN NOT IN USE. STORAGE AT AMBIENT TEMPERATURES IN A DRY AREA OUT OF DIRECT SUNLIGHT. PROTECT FROM FREEZING. ROTATE STOCK REGULARLY. KEEP AWAY FROM FOOD AND DRINK. KEEP OUT OF REACH OF CHILDREN.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Page 3 of 4

EXPOSURE LIMITS: NONE**ENGINEERING CONTROLS:** NONE REQUIRED. GENERAL ROOM VENTILATION IS ADEQUATE.**PERSONAL PROTECTION****EYES:** NONE REQUIRED WITH NORMAL USE.**HANDS:** NONE REQUIRED WITH NORMAL USE.**RESPIRATORY:** N.AP.**FEET:** N.AP.**BODY:** N.AP.**9. PHYSICAL AND CHEMICAL PROPERTIES****APPEARANCE:** AMBER LIQUID**ODOR:** LEMON**pH CONCENTRATE:** 7.3**pH @ 2500 PPM SOLUTION:** N.AV.**pH @ USE DILUTION:** N.AV.**PHYSICAL STATE:** LIQUID**RELATIVE DENSITY (WATER):** 1.020**SOLUBILITY (WATER):** COMPLETE**VAPOR PRESSURE:** N.AV.**VAPOR DENSITY:** N. AV.**VISCOSITY:** VISCOUS**AUTO-IGNITION TEMPERATURE:** N.AV.**DECOMPOSITION TEMPERATURE:** N.AV.**EXPLOSIVE LIMITS (LEL/UEL):** NONE**EVAPORATION RATE:** N.AV.**FLAMMABILITY (SOLID, GAS):** N.AP.**FLASH POINT:** NONE**INITIAL BOILING POINT/RANGE:** N.AV.**MELTING POINT/FREEZING POINT:** N.AV.**ODOR THRESHOLD:** N.AV.**PARTITION COEFF. (N-OCTANOL/WATER):** N.AV.**OTHER:** N.AV.**10. STABILITY AND REACTIVITY****REACTIVITY:** NO HAZARD.**CHEMICAL STABILITY:** STABLE.**POSSIBILITY OF HAZARDOUS REACTIONS:** NONE KNOWN. WILL NOT POLYMERIZE.**CONDITIONS TO AVOID:** TEMPERATURES BELOW 35°F (1.6°C) OR ABOVE 120°F (49°C).**MATERIALS TO AVOID:** DIRECT MIXING WITH OTHER CHEMICALS. MIX ONLY WITH WATER.**HAZARDOUS DECOMPOSITION PRODUCTS:** NONE UNDER NORMAL CONDITIONS.**11. TOXICOLOGICAL INFORMATION****ROUTES OF EXPOSURE:** EYES, SKIN, INGESTION, INHALATION.**INFORMATION ON ROUTES OF EXPOSURE:** NO LC50/LD50 TEST DATA FOR MIXTURE.**ACUTE EFFECTS/SYMPTOMS****EYES:** MAY BE MILDLY IRRITATING TO EYES. MAY CAUSE REDNESS AND WATERING.**SKIN:** MAY BE MILDLY IRRITATING TO SENSITIVE SKIN.**INGESTION:** MAY CAUSE IRRITATION, NAUSEA, VOMITING AND DIARRHEA.**INHALATION:** NONE KNOWN.**CHRONIC / OTHER EFFECTS:** NO REPORTABLE GERM CELL MUTAGENS, SKIN SENSITIZERS, RESPIRATORY SENSITIZERS, REPRODUCTIVE TOXINS OR ASPIRATION HAZARDS.**SPECIFIC TARGET ORGANS (SINGLE/REPEATED):** NONE KNOWN.**NUMERICAL MEASURES OF TOXICITY:** ATEmix (ORAL-RAT) = >5000 MG / KG**CARCINOGENS:** NO REPORTABLE ACGIH, IARC, NTP, OR OSHA CARCINOGENS.

12. ECOLOGICAL INFORMATION

Page 4 of 4

ECOTOXICITY / CHEMICAL FATE: NOT AVAILABLE**13. DISPOSAL CONSIDERATIONS**

DISPOSAL METHOD: DISPOSE OF CONTENTS IN ACCORDANCE WITH ALL FEDERAL, STATE, AND LOCAL APPLICABLE LAWS AND REGULATIONS. CONSULT STATE AND LOCAL AUTHORITIES FOR RESTRICTIONS ON DISPOSAL OF CHEMICAL WASTE. MANAGE CHEMICAL WASTES THROUGH AN APPROVED WASTE TREATMENT FACILITY. DO NOT REUSE EMPTY CONTAINER. RINSE EMPTY CONTAINER THOROUGHLY WITH WATER BEFORE DISCARDING CONTAINER IN ACCORDANCE WITH CURRENT LOCAL COMMUNITY CODES. PLEASE RECYCLE EMPTY CONTAINER WHENEVER POSSIBLE.

14. TRANSPORT INFORMATION**DOT / IMDG / IATA / TDG:** NOT REGULATED**15. REGULATORY INFORMATION**

EPA CERCLA RQ: NO
EPA REGISTERED: NO
OSHA HAZARDOUS: NO
PHOSPHORUS CONTENT: 0.00%
PROPOSITION 65: NO
SARA 311/312 HAZARDS: NO
SARA 313 CHEMICALS: NO
STATE RIGHT TO KNOW: WATER/7732-18-5, SODIUM DODECYLBENZENESULFONATE/25155-30-0, SODIUM LAURETH SULFATE/9004-82-4
TSCA INVENTORY STATUS: ALL COMPONENTS ARE LISTED ON THE INVENTORY.
VOC: 0.45% CALCULATION METHOD USED IS BASED ON CALIFORNIA ARB STANDARD.

16. OTHER INFORMATION

PREPARATION DATE: 2-14-14 **PREPARED BY:** RC **REVISED SECTION:** 16
ABBREVIATIONS: N.AV. = NOT AVAILABLE N.AP. = NOT APPLICABLE

NOTICE TO READER

THIS DOCUMENT HAS BEEN PREPARED USING DATA FROM SOURCES CONSIDERED TECHNICALLY RELIABLE. IT DOES NOT CONSTITUTE A WARRANTY, EXPRESS OR IMPLIED, AS TO THE ACCURACY OF THE INFORMATION CONTAINED WITHIN. ACTUAL CONDITIONS OF USE AND HANDLING ARE BEYOND SELLER'S CONTROL. USER IS RESPONSIBLE FOR EVALUATING ALL AVAILABLE INFORMATION WHEN USING PRODUCT FOR ANY PARTICULAR USE AND TO COMPLY WITH ALL FEDERAL, STATE, PROVINCIAL AND LOCAL LAWS AND REGULATIONS.

1. IDENTIFICATION

PRODUCT NAME: SPECIAL RINSE AID

RECOMMENDED USE: RINSE AID

RESTRICTIONS ON USE: DO NOT USE IN A MANNER INCONSISTENT WITH THE LABEL.

LABEL BRAND: U S CHEMICAL

SDS 100318 CODE 057265, 057267, 4362818

U S CHEMICAL 316 HART STREET WATERTOWN, WI 53094 USA
MEDICAL EMERGENCY: 1-866-923-4913 USA
SPILL EMERGENCY: 1-800-424-9300 USA
PRODUCT INFORMATION: 1-800-558-9566 USA (8 A.M. TO 5 P.M. CST MONDAY TO FRIDAY)
INTERNET ADDRESS: WWW.USCHEMICAL.COM

2. HAZARD(S) IDENTIFICATION

CLASSIFICATION: EYE IRRITATION (CATEGORY 2A), SKIN IRRITATION (CATEGORY 2)

LABEL ELEMENTS

SIGNAL WORD: WARNING

PICTOGRAMS: EXCLAMATION MARK



HAZARD STATEMENTS: CAUSES SERIOUS EYE IRRITATION AND SKIN IRRITATION.

PRECAUTIONARY STATEMENTS: Wear chemical-splash goggles and chemical-resistant protective gloves. Avoid contact with eyes, skin, and clothing. Wash hands and affected areas thoroughly after handling.

FIRST AID: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing for at least 15 minutes. If eye irritation persists, get medical attention. **IF ON SKIN:** Wash with plenty of water. If skin irritation occurs, get medical attention. Take off contaminated clothing and wash it before reuse. **IF SWALLOWED:** Rinse mouth. If conscious, dilute by drinking up to a cupful of milk or water as tolerated.

EMERGENCY TELEPHONE: 1-866-923-4913

KEEP OUT OF REACH OF CHILDREN. FOR COMMERCIAL AND INDUSTRIAL USE ONLY.

HAZARDS NOT OTHERWISE CLASSIFIED: Not applicable.

3. COMPOSITION / INFORMATION ON INGREDIENTS

HAZARDOUS INGREDIENT(S)	CAS #	WEIGHT %
AMINE POLYGLYCOL CONDENSATE	68603-58-7	11.3
ALCOHOL ALKOXYLATE	166736-08-9	4.3
STATE RIGHT TO KNOW: SEE SECTION 15 FOR STATE RTK CHEMICAL NAMES IN MIXTURE.		

4. FIRST-AID MEASURES

Page 2 of 4

IF IN EYES: RINSE CAUTIOUSLY WITH WATER FOR SEVERAL MINUTES. REMOVE CONTACT LENSES, IF PRESENT AND EASY TO DO. CONTINUE RINSING FOR AT LEAST 15 MINUTES. IF EYE IRRITATION PERSISTS, GET MEDICAL ATTENTION.

IF ON SKIN: WASH WITH PLENTY OF WATER. IF SKIN IRRITATION OCCURS, GET MEDICAL ATTENTION. TAKE OFF CONTAMINATED CLOTHING AND WASH IT BEFORE REUSE.

IF SWALLOWED: RINSE MOUTH. IF CONSCIOUS, DILUTE BY DRINKING UP TO A CUPFUL OF MILK OR WATER AS TOLERATED.

IF INHALED: NO SPECIFIC FIRST AID MEASURES ARE REQUIRED.

EMERGENCY TELEPHONE: 1-866-923-4913

MOST IMPORTANT SYMPTOMS / EFFECTS: CAUSES SERIOUS EYE IRRITATION AND SKIN IRRITATION.

MEDICAL CONDITIONS AGGRAVATED: NONE KNOWN.

NOTE TO PHYSICIAN: CALL 1-866-923-4913 FOR EXPOSURE MANAGEMENT ASSISTANCE.

5. FIRE-FIGHTING MEASURES

CHEMICAL HAZARDS: EYE AND SKIN IRRITATION. NON-FLAMMABLE.

COMBUSTION PRODUCT HAZARDS: OXIDES OF CARBON AND OTHER FUMES.

METHODS: SELECT EXTINGUISHER AND METHODS BASED ON FIRE SIZE AND TYPE.

EQUIPMENT: WEAR SCBA AND FULL PROTECTIVE GEAR AS CONDITIONS WARRANT.

NFPA RATING: HEALTH-2/FLAMMABILITY-0/ INSTABILITY-0/SPECIAL HAZARD-N.AP.

SUITABLE EXTINGUISHERS: WATER, DRY CHEMICAL, CO2 OR FOAM SUITABLE FOR FIRE.

UNSUITABLE EXTINGUISHERS: NO RESTRICTIONS BASED ON CHEMICAL HAZARDS.

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS: EVACUATE UNPROTECTED PERSONNEL FROM AREA. WEAR PERSONAL PROTECTION INCLUDING RUBBER BOOTS. SEE SECTION 8. VENTILATE AREA IF NEEDED. BE CAREFUL NOT TO SLIP. WASH THOROUGHLY AFTER CLEAN-UP.

ENVIRONMENTAL PRECAUTIONS: PREVENT SPILL FROM ENTERING DRAIN, STORM SEWER OR SURFACE WATERWAY. PREVENT WATER AND SOIL CONTAMINATION.

CLEAN-UP METHODS: SMALL SPILLS MAY BE WIPED UP AND RINSED WITH WATER. FOR LARGER SPILLS, DIKE TO CONTAIN. PUMP TO LABELED CONTAINER OR ABSORB SPILLAGE AND SCOOP UP WITH INERT ABSORBENT MATERIAL. AFTER SPILL COLLECTION, RINSE AREA WITH WATER AND FOLLOW WITH NORMAL CLEAN-UP PROCEDURES.

7. HANDLING AND STORAGE

HANDLING: FOLLOW ALL LABEL DIRECTIONS. INSTRUCT PERSONNEL ABOUT PROPER USE, HAZARDS, PRECAUTIONS, AND FIRST AID MEASURES. AVOID CONTACT WITH EYES, SKIN AND CLOTHING. TAKE OFF CONTAMINATED CLOTHING AND WASH IT BEFORE REUSE. DO NOT TASTE OR SWALLOW. PRODUCT RESIDUE MAY REMAIN ON OR IN EMPTY CONTAINERS. HANDLE CAREFULLY TO AVOID DAMAGING CONTAINER.

STORAGE: KEEP CONTAINER CLOSED WHEN NOT IN USE. STORAGE AT AMBIENT TEMPERATURES IN A DRY AREA OUT OF DIRECT SUNLIGHT. PROTECT FROM FREEZING. ROTATE STOCK REGULARLY. KEEP AWAY FROM FOOD AND DRINK. KEEP OUT OF REACH OF CHILDREN.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

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EXPOSURE LIMITS: AMINE POLYGLYCOL CONDENSATE = NONE

ALCOHOL ALKOXYLATE = NONE

ENGINEERING CONTROLS: NONE REQUIRED. GENERAL ROOM VENTILATION IS TYPICALLY ADEQUATE.**PERSONAL PROTECTION****EYES:** SAFETY GOGGLES (INDIRECT-VENTED OR NON-VENTED) AND AN EYE-WASH STATION.**HANDS:** CHEMICAL-RESISTANT PROTECTIVE GLOVES (RUBBER OR NEOPRENE).**RESPIRATORY:** NONE REQUIRED.**FEET:** NONE REQUIRED. RUBBER BOOTS RECOMMENDED DURING SPILL CLEAN-UP.**BODY:** NONE REQUIRED.**9. PHYSICAL AND CHEMICAL PROPERTIES****APPEARANCE:** GREEN LIQUID**ODOR:** NONE ADDED**pH CONCENTRATE:** 5.0**pH @ 2500 PPM SOLUTION:** N.AV.**pH @ USE DILUTION:** N.AV.**PHYSICAL STATE:** LIQUID**RELATIVE DENSITY (WATER):** 1.020**SOLUBILITY (WATER):** COMPLETE**VAPOR PRESSURE:** N.AV.**VAPOR DENSITY:** N. AV.**VISCOSITY:** SLIGHTLY VISCOUS**AUTO-IGNITION TEMPERATURE:** N.AV.**DECOMPOSITION TEMPERATURE:** N.AV.**EXPLOSIVE LIMITS (LEL/UEL):** NONE**EVAPORATION RATE:** N.AV.**FLAMMABILITY (SOLID, GAS):** N.AP.**FLASH POINT:** NONE**INITIAL BOILING POINT/RANGE:** N.AV.**MELTING POINT/FREEZING POINT:** N.AV.**ODOR THRESHOLD:** N.AV.**PARTITION COEFF. (N-OCTANOL/WATER):** N.AV.**OTHER:** N.AV.**10. STABILITY AND REACTIVITY****REACTIVITY:** NO HAZARD.**CHEMICAL STABILITY:** STABLE.**POSSIBILITY OF HAZARDOUS REACTIONS:** NONE KNOWN. WILL NOT POLYMERIZE.**CONDITIONS TO AVOID:** TEMPERATURES BELOW 35°F (1.6°C) OR ABOVE 120°F (49°C).**MATERIALS TO AVOID:** DIRECT MIXING WITH OTHER CHEMICALS. MIX ONLY WITH WATER.**HAZARDOUS DECOMPOSITION PRODUCTS:** NONE UNDER NORMAL CONDITIONS.**11. TOXICOLOGICAL INFORMATION****ROUTES OF EXPOSURE:** EYES, SKIN, INGESTION, INHALATION.**INFORMATION ON ROUTES OF EXPOSURE:** NO LC50/LD50 TEST DATA ON MIXTURE.**ACUTE EFFECTS /SYMPTOMS****EYES:** CAUSES SERIOUS EYE IRRITATION. MAY CAUSE PAIN, REDNESS AND WATERING.**SKIN:** CAUSES SKIN IRRITATION. MAY CAUSE DISCOMFORT, DRYING AND REDNESS.**INGESTION:** MAY CAUSE IRRITATION, NAUSEA, VOMITING AND DIARRHEA.**INHALATION:** NONE KNOWN.**CHRONIC / OTHER EFFECTS:** NO REPORTABLE GERM CELL MUTAGENS, SKIN SENSITIZERS, RESPIRATORY SENSITIZERS, REPRODUCTIVE TOXINS OR ASPIRATION HAZARDS.**SPECIFIC TARGET ORGANS (SINGLE/REPEATED):** NONE KNOWN.**NUMERICAL MEASURES OF TOXICITY:** ATEmix (ORAL-RAT) = 3290 MG / KG**CARCINOGENS:** NO REPORTABLE ACGIH, IARC, NTP, OR OSHA CARCINOGENS.

12. ECOLOGICAL INFORMATION

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ECOTOXICITY / CHEMICAL FATE: NOT AVAILABLE.**13. DISPOSAL CONSIDERATIONS**

DISPOSAL METHOD: DISPOSE OF CONTENTS IN ACCORDANCE WITH ALL FEDERAL, STATE, AND LOCAL APPLICABLE LAWS AND REGULATIONS. CONSULT STATE AND LOCAL AUTHORITIES FOR RESTRICTIONS ON DISPOSAL OF CHEMICAL WASTE. MANAGE CHEMICAL WASTES THROUGH AN APPROVED WASTE TREATMENT FACILITY. DO NOT REUSE EMPTY CONTAINER. RINSE EMPTY CONTAINER THOROUGHLY WITH WATER BEFORE DISCARDING CONTAINER IN ACCORDANCE WITH CURRENT LOCAL COMMUNITY CODES. PLEASE RECYCLE EMPTY CONTAINER WHENEVER POSSIBLE.

14. TRANSPORT INFORMATION**DOT / IMDG / IATA / TDG:** NOT REGULATED**15. REGULATORY INFORMATION**

EPA CERCLA RQ: NO
EPA REGISTERED: NO
OSHA HAZARDOUS: YES
PHOSPHORUS CONTENT: 0.00%
PROPOSITION 65: NO
SARA 311/312 HAZARDS: ACUTE
SARA 313 CHEMICALS: NO
STATE RIGHT TO KNOW: WATER/7732-18-5, AMINE POLYGLYCOL CONDENSATE/68603-58-7, MEROXAPOL/9003-11-6, ALCOHOL ALKOXYLATE/166736-08-9
TSCA INVENTORY STATUS: ALL COMPONENTS ARE LISTED ON THE INVENTORY.
VOC: 0.00% CALCULATION METHOD USED IS BASED ON CALIFORNIA ARB STANDARD.

16. OTHER INFORMATION

PREPARATION DATE: 9-14-14 **PREPARED BY:** RC **REVISED SECTION:** 16
ABBREVIATIONS: N.AV. = NOT AVAILABLE N.AP. = NOT APPLICABLE

NOTICE TO READER

THIS DOCUMENT HAS BEEN PREPARED USING DATA FROM SOURCES CONSIDERED TECHNICALLY RELIABLE. IT DOES NOT CONSTITUTE A WARRANTY, EXPRESS OR IMPLIED, AS TO THE ACCURACY OF THE INFORMATION CONTAINED WITHIN. ACTUAL CONDITIONS OF USE AND HANDLING ARE BEYOND SELLER'S CONTROL. USER IS RESPONSIBLE FOR EVALUATING ALL AVAILABLE INFORMATION WHEN USING PRODUCT FOR ANY PARTICULAR USE AND TO COMPLY WITH ALL FEDERAL, STATE, PROVINCIAL AND LOCAL LAWS AND REGULATIONS.

1. IDENTIFICATION

PRODUCT NAME: WHISPER
RECOMMENDED USE: LAUNDRY SOFTENER
RESTRICTIONS ON USE: DO NOT USE IN A MANNER INCONSISTENT WITH THE LABEL.
LABEL BRAND: U S CHEMICAL
SDS 100073W CODE 057077, 4362746

U S CHEMICAL 316 HART STREET WATERTOWN, WI 53094 USA
MEDICAL EMERGENCY: 1-866-923-4913 USA
SPILL EMERGENCY: 1-800-424-9300 USA
PRODUCT INFORMATION: 1-800-558-9566 USA (8 A.M. TO 5 P.M. CST MONDAY TO FRIDAY)
INTERNET ADDRESS: WWW.USCHEMICAL.COM

2. HAZARD(S) IDENTIFICATION

CLASSIFICATION: EYE IRRITATION (CATEGORY 2A), SKIN IRRITATION (CATEGORY 2)

LABEL ELEMENTS

SIGNAL WORD: WARNING

PICTOGRAMS: EXCLAMATION MARK



HAZARD STATEMENTS: CAUSES SERIOUS EYE IRRITATION AND SKIN IRRITATION.

PRECAUTIONARY STATEMENTS: Wear chemical-splash goggles and chemical-resistant protective gloves. Avoid contact with eyes, skin, and clothing. Wash hands and affected areas thoroughly after handling.

FIRST AID: **IF IN EYES:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing for at least 15 minutes. If eye irritation persists, get medical attention. **IF ON SKIN:** Wash with plenty of water. If skin irritation occurs, get medical attention. Take off contaminated clothing and wash it before reuse. **IF SWALLOWED:** Rinse mouth. If conscious, dilute by drinking up to a cupful of milk or water as tolerated.

EMERGENCY TELEPHONE: 1-866-923-4913

KEEP OUT OF REACH OF CHILDREN. FOR COMMERCIAL AND INDUSTRIAL USE ONLY.

HAZARDS NOT OTHERWISE CLASSIFIED: Not applicable.

3. COMPOSITION / INFORMATION ON INGREDIENTS

HAZARDOUS INGREDIENT(S)	CAS #	WEIGHT %
DITALLOWAMIDOETHYL HYDROXYETHYLMONIUM METHOSULFATE	68410-69-5	7.4
QUATERNIUM-18	68002-59-5	2.8
ISOPROPYL ALCOHOL	67-63-0	1.7
STATE RIGHT TO KNOW: SEE SECTION 15 FOR STATE RTK CHEMICAL NAMES IN MIXTURE.		

4. FIRST-AID MEASURES

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IF IN EYES: RINSE CAUTIOUSLY WITH WATER FOR SEVERAL MINUTES. REMOVE CONTACT LENSES, IF PRESENT AND EASY TO DO. CONTINUE RINSING FOR AT LEAST 15 MINUTES. IF EYE IRRITATION PERSISTS, GET MEDICAL ATTENTION.

IF ON SKIN: WASH WITH PLENTY OF WATER. IF SKIN IRRITATION OCCURS, GET MEDICAL ATTENTION. TAKE OFF CONTAMINATED CLOTHING AND WASH IT BEFORE REUSE.

IF SWALLOWED: RINSE MOUTH. IF CONSCIOUS, DILUTE BY DRINKING UP TO A CUPFUL OF MILK OR WATER AS TOLERATED.

IF INHALED: NO SPECIFIC FIRST AID MEASURES ARE REQUIRED.

EMERGENCY TELEPHONE: 1-866-923-4913

MOST IMPORTANT SYMPTOMS / EFFECTS: CAUSES SERIOUS EYE IRRITATION AND SKIN IRRITATION.

MEDICAL CONDITIONS AGGRAVATED: NONE KNOWN.

NOTE TO PHYSICIAN: CALL 1-866-923-4913 FOR EXPOSURE MANAGEMENT ASSISTANCE.

5. FIRE-FIGHTING MEASURES

CHEMICAL HAZARDS: EYE AND SKIN IRRITATION. NON-FLAMMABLE.

COMBUSTION PRODUCT HAZARDS: OXIDES OF CARBON AND OTHER FUMES.

METHODS: SELECT EXTINGUISHER AND METHODS BASED ON FIRE SIZE AND TYPE.

EQUIPMENT: WEAR SCBA AND FULL PROTECTIVE GEAR AS CONDITIONS WARRANT.

NFPA RATING: HEALTH-2/FLAMMABILITY-0/ INSTABILITY-0/SPECIAL HAZARD-N.AP.

SUITABLE EXTINGUISHERS: WATER, DRY CHEMICAL, CO2 OR FOAM SUITABLE FOR FIRE.

UNSUITABLE EXTINGUISHERS: NO RESTRICTIONS BASED ON CHEMICAL HAZARDS.

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS: EVACUATE UNPROTECTED PERSONNEL FROM AREA.

WEAR PERSONAL PROTECTION INCLUDING RUBBER BOOTS. SEE SECTION 8. VENTILATE AREA IF NEEDED. BE CAREFUL NOT TO SLIP. WASH THOROUGHLY AFTER CLEAN-UP.

ENVIRONMENTAL PRECAUTIONS: PREVENT SPILL FROM ENTERING DRAIN, STORM SEWER OR SURFACE WATERWAY. PREVENT WATER AND SOIL CONTAMINATION.

CLEAN-UP METHODS: SMALL SPILLS MAY BE WIPED UP AND RINSED WITH WATER. FOR LARGER SPILLS, DIKE TO CONTAIN. PUMP TO LABELED CONTAINER OR ABSORB SPILLAGE AND SCOOP UP WITH INERT ABSORBENT MATERIAL. AFTER SPILL COLLECTION, RINSE AREA WITH WATER AND FOLLOW WITH NORMAL CLEAN-UP PROCEDURES.

7. HANDLING AND STORAGE

HANDLING: FOLLOW ALL LABEL DIRECTIONS. INSTRUCT PERSONNEL ABOUT PROPER USE, HAZARDS, PRECAUTIONS, AND FIRST AID MEASURES. AVOID CONTACT WITH EYES, SKIN AND CLOTHING. TAKE OFF CONTAMINATED CLOTHING AND WASH IT BEFORE REUSE. DO NOT TASTE OR SWALLOW. PRODUCT RESIDUE MAY REMAIN ON OR IN EMPTY CONTAINERS. HANDLE CAREFULLY TO AVOID DAMAGING CONTAINER.

STORAGE: KEEP CONTAINER CLOSED WHEN NOT IN USE. STORAGE AT AMBIENT TEMPERATURES IN A DRY AREA OUT OF DIRECT SUNLIGHT. PROTECT FROM FREEZING. ROTATE STOCK REGULARLY. KEEP AWAY FROM FOOD AND DRINK. KEEP OUT OF REACH OF CHILDREN.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Page 3 of 4

EXPOSURE LIMITS:

DITALLOWAMIDOETHYL HYDROXYETHYLMONIUM METHOSULFATE = NONE

QUATERNIUM-18 = NONE

ISOPROPYL ALCOHOL = 200 PPM TWA, 400 PPM STEL (ACGIH), 400 PPM TWA (OSHA)

ENGINEERING CONTROLS: NONE REQUIRED. GENERAL ROOM VENTILATION IS TYPICALLY ADEQUATE.**PERSONAL PROTECTION****EYES:** SAFETY GOGGLES (INDIRECT-VENTED OR NON-VENTED) AND AN EYE-WASH STATION.**HANDS:** CHEMICAL-RESISTANT PROTECTIVE GLOVES (RUBBER OR NEOPRENE).**RESPIRATORY:** NONE REQUIRED.**FEET:** NONE REQUIRED. RUBBER BOOTS RECOMMENDED DURING SPILL CLEAN-UP.**BODY:** NONE REQUIRED.**9. PHYSICAL AND CHEMICAL PROPERTIES****APPEARANCE:** OPAQUE WHITE LIQUID**ODOR:** FLORAL**pH CONCENTRATE:** 5.5**pH @ 2500 PPM SOLUTION:** N.AV.**pH @ USE DILUTION:** N.AV.**PHYSICAL STATE:** LIQUID**RELATIVE DENSITY (WATER):** 0.995**SOLUBILITY (WATER):** COMPLETE**VAPOR PRESSURE:** N.AV.**VAPOR DENSITY:** N. AV.**VISCOSITY:** VISCOUS**AUTO-IGNITION TEMPERATURE:** N.AV.**DECOMPOSITION TEMPERATURE:** N.AV.**EXPLOSIVE LIMITS (LEL/UEL):** NONE**EVAPORATION RATE:** N.AV.**FLAMMABILITY (SOLID, GAS):** N.AP.**FLASH POINT:** NONE**INITIAL BOILING POINT/RANGE:** N.AV.**MELTING POINT/FREEZING POINT:** N.AV.**ODOR THRESHOLD:** N.AV.**PARTITION COEFF. (N-OCTANOL/WATER):** N.AV.**OTHER:** N.AV.**10. STABILITY AND REACTIVITY****REACTIVITY:** NO HAZARD.**CHEMICAL STABILITY:** STABLE.**POSSIBILITY OF HAZARDOUS REACTIONS:** NONE KNOWN. WILL NOT POLYMERIZE.**CONDITIONS TO AVOID:** TEMPERATURES BELOW 35°F (1.6°C) OR ABOVE 120°F (49°C).**MATERIALS TO AVOID:** DIRECT MIXING WITH OTHER CHEMICALS. MIX ONLY WITH WATER.**HAZARDOUS DECOMPOSITION PRODUCTS:** NONE UNDER NORMAL CONDITIONS.**11. TOXICOLOGICAL INFORMATION****ROUTES OF EXPOSURE:** EYES, SKIN, INGESTION, INHALATION.**INFORMATION ON ROUTES OF EXPOSURE:** NO LC50/LD50 TEST DATA ON MIXTURE.**ACUTE EFFECTS /SYMPTOMS****EYES:** CAUSES SERIOUS EYE IRRITATION. MAY CAUSE PAIN, REDNESS AND WATERING.**SKIN:** CAUSES SKIN IRRITATION. MAY CAUSE DISCOMFORT, DRYING AND REDNESS.**INGESTION:** MAY CAUSE IRRITATION, NAUSEA, VOMITING AND DIARRHEA.**INHALATION:** NONE KNOWN.**CHRONIC / OTHER EFFECTS:** NO REPORTABLE GERM CELL MUTAGENS, SKIN SENSITIZERS, RESPIRATORY SENSITIZERS, REPRODUCTIVE TOXINS OR ASPIRATION HAZARDS.**SPECIFIC TARGET ORGANS (SINGLE/REPEATED):** NONE KNOWN.**NUMERICAL MEASURES OF TOXICITY:** ATEmix (ORAL-RAT) = ABOVE 2000 MG / KG**CARCINOGENS:** NO REPORTABLE ACGIH, IARC, NTP, OR OSHA CARCINOGENS.

12. ECOLOGICAL INFORMATION

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ECOTOXICITY / CHEMICAL FATE: NOT AVAILABLE.**13. DISPOSAL CONSIDERATIONS**

DISPOSAL METHOD: DISPOSE OF CONTENTS IN ACCORDANCE WITH ALL FEDERAL, STATE, AND LOCAL APPLICABLE LAWS AND REGULATIONS. CONSULT STATE AND LOCAL AUTHORITIES FOR RESTRICTIONS ON DISPOSAL OF CHEMICAL WASTE. MANAGE CHEMICAL WASTES THROUGH AN APPROVED WASTE TREATMENT FACILITY. DO NOT REUSE EMPTY CONTAINER. RINSE EMPTY CONTAINER THOROUGHLY WITH WATER BEFORE DISCARDING CONTAINER IN ACCORDANCE WITH CURRENT LOCAL COMMUNITY CODES. PLEASE RECYCLE EMPTY CONTAINER WHENEVER POSSIBLE.

14. TRANSPORT INFORMATION**DOT / IMDG / IATA / TDG:** NOT REGULATED**15. REGULATORY INFORMATION**

EPA CERCLA RQ: NO
EPA REGISTERED: NO
OSHA HAZARDOUS: YES
PHOSPHORUS CONTENT: 0.00%
PROPOSITION 65: NO
SARA 311/312 HAZARDS: ACUTE
SARA 313 CHEMICALS: NO
STATE RIGHT TO KNOW: WATER/7732-18-5,
DITALLOWAMIDOETHYL HYDROXYETHYLMONIUM METHOSULFATE/68410-69-5,
QUATERNIUM-18/68002-59-5, ISOPROPYL ALCOHOL/67-63-0,
TSCA INVENTORY STATUS: ALL COMPONENTS ARE LISTED ON THE INVENTORY.
VOC: 1.70% CALCULATION METHOD USED IS BASED ON CALIFORNIA ARB STANDARD.

16. OTHER INFORMATION

PREPARATION DATE: 4-4-14 **PREPARED BY:** RC **REVISED SECTION:** 16
ABBREVIATIONS: N.AV. = NOT AVAILABLE N.AP. = NOT APPLICABLE

NOTICE TO READER

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1. IDENTIFICATION

PRODUCT NAME: CAL-TASTIC
RECOMMENDED USE: MULTI-SURFACE CLEANER AND DEGREASER
RESTRICTIONS ON USE: DO NOT USE IN A MANNER INCONSISTENT WITH THE LABEL.
LABEL BRAND: USCALRITE
SDS 100797C CODE 4362834

U S CHEMICAL 316 HART STREET WATERTOWN, WI 53094 USA
MEDICAL EMERGENCY: 1-866-923-4913 USA
SPILL EMERGENCY: 1-800-424-9300 USA
PRODUCT INFORMATION: 1-800-558-9566 USA (8 A.M. TO 5 P.M. CST MONDAY TO FRIDAY)
INTERNET ADDRESS: WWW.USCHEMICAL.COM

2. HAZARD(S) IDENTIFICATION

CLASSIFICATION: SKIN CORROSION (CATEGORY 1C), EYE DAMAGE (CATEGORY 1)
CORROSIVE TO METALS (CATEGORY 1)

LABEL ELEMENTS

SIGNAL WORD: DANGER

PICTOGRAMS: CORROSION



**HAZARD STATEMENTS: CAUSES SEVERE SKIN BURNS AND SERIOUS EYE DAMAGE.
MAY BE CORROSIVE TO METALS.**

PRECAUTIONARY STATEMENTS: Wear chemical-splash safety goggles, chemical-resistant protective gloves and protective footwear. Avoid contact with eyes, skin and clothing. Do not breathe vapors or mists. Do not eat, drink, or smoke when using this product. Wash hands and affected areas thoroughly after handling. Absorb spillage to prevent material damage.

FIRST AID: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing for at least 15 minutes. **IF ON SKIN (OR HAIR):** Take off immediately all contaminated clothing. Rinse skin with water for at least 15 minutes. Wash contaminated clothing before reuse. **IF SWALLOWED:** Rinse mouth. **Do NOT** induce vomiting. If conscious, dilute by drinking up to a cupful of milk or water as tolerated. **IF INHALED:** Remove person to fresh air and keep comfortable for breathing.

START FIRST AID. IMMEDIATELY CALL A POISON CENTER OR PHYSICIAN.

EMERGENCY TELEPHONE: 1-866-923-4913

Storage: Store tightly closed only in original corrosive-resistant plastic container. Store locked up.

Disposal: Dispose of contents in accordance with all federal, state and local applicable laws and regulations.

KEEP OUT OF REACH OF CHILDREN. FOR COMMERCIAL AND INDUSTRIAL USE ONLY.

HAZARDS NOT OTHERWISE CLASSIFIED: Not applicable.

3. COMPOSITION / INFORMATION ON INGREDIENTS

HAZARDOUS INGREDIENT(S)	CAS #	WEIGHT %
ALCOHOL ETHOXYLATES	68439-46-3	5.0
SODIUM METASILICATE	6834-92-0	4.2
2-BUTOXYETHANOL	111-76-2	3.7
TETRASODIUM EDTA	64-02-8	1.6
STATE RIGHT TO KNOW: SEE SECTION 15 FOR STATE RTK CHEMICAL NAMES IN MIXTURE.		

4. FIRST-AID MEASURES

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IF IN EYES: RINSE CAUTIOUSLY WITH WATER FOR SEVERAL MINUTES. REMOVE CONTACT LENSES, IF PRESENT AND EASY TO DO. CONTINUE RINSING FOR AT LEAST 15 MINUTES.
IF ON SKIN (OR HAIR): TAKE OFF IMMEDIATELY ALL CONTAMINATED CLOTHING. RINSE SKIN WITH WATER FOR AT LEAST 15 MINUTES. WASH CONTAMINATED CLOTHING BEFORE REUSE.
IF SWALLOWED: RINSE MOUTH. **Do NOT** INDUCE VOMITING. IF CONSCIOUS, DILUTE BY DRINKING UP TO A CUPFUL OF MILK OR WATER AS TOLERATED. **IF INHALED:** REMOVE PERSON TO FRESH AIR AND KEEP COMFORTABLE FOR BREATHING.
START FIRST AID. IMMEDIATELY CALL A POISON CENTER OR PHYSICIAN.
EMERGENCY TELEPHONE: 1-866-923-4913

MOST IMPORTANT SYMPTOMS / EFFECTS: CAUSES SEVERE SKIN BURNS AND SERIOUS EYE DAMAGE. MAY CAUSE BLINDNESS WITHOUT IMMEDIATE FIRST AID. HARMFUL IF SWALLOWED. CAUSES BURNS AND SERIOUS DAMAGE TO MOUTH, THROAT AND STOMACH. CORROSIVE TO ALL BODY TISSUES.

MEDICAL CONDITIONS AGGRAVATED: NONE KNOWN.

NOTE TO PHYSICIAN: CALL 1-866-923-4913 FOR EXPOSURE MANAGEMENT ASSISTANCE.

5. FIRE-FIGHTING MEASURES

CHEMICAL HAZARDS: CORROSIVE. NON-FLAMMABLE.

COMBUSTION PRODUCT HAZARDS: OXIDES OF CARBON AND OTHER FUMES.

METHODS: SELECT EXTINGUISHER AND METHODS BASED ON FIRE SIZE AND TYPE.

EQUIPMENT: WEAR SCBA AND FULL PROTECTIVE GEAR AS CONDITIONS WARRANT.

NFPA RATING: HEALTH-3/FLAMMABILITY-0/ INSTABILITY-0/SPECIAL HAZARD-N.AP.

SUITABLE EXTINGUISHERS: WATER, DRY CHEMICAL, CO2 OR FOAM SUITABLE FOR FIRE.

UNSUITABLE EXTINGUISHERS: NO RESTRICTIONS BASED ON CHEMICAL HAZARDS.

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS: EVACUATE UNPROTECTED PERSONNEL FROM AREA. WEAR PERSONAL PROTECTION INCLUDING RUBBER BOOTS. SEE SECTION 8. VENTILATE AREA IF NEEDED. BE CAREFUL NOT TO SLIP. WASH THOROUGHLY AFTER CLEAN-UP.

ENVIRONMENTAL PRECAUTIONS: PREVENT SPILL FROM ENTERING DRAIN, STORM SEWER OR SURFACE WATERWAY. PREVENT WATER AND SOIL CONTAMINATION.

CLEAN-UP METHODS: SMALL SPILLS MAY BE WIPED UP AND RINSED WITH WATER. FOR LARGER SPILLS, DIKE TO CONTAIN. PUMP TO LABELED CONTAINER OR ABSORB SPILLAGE AND SCOOP UP WITH INERT ABSORBENT MATERIAL. AFTER SPILL COLLECTION, RINSE AREA WITH WATER AND FOLLOW WITH NORMAL CLEAN-UP PROCEDURES.

7. HANDLING AND STORAGE

HANDLING: FOLLOW ALL LABEL DIRECTIONS. INSTRUCT PERSONNEL ABOUT PROPER USE, HAZARDS, PRECAUTIONS, AND FIRST AID MEASURES. AVOID INHALATION, INGESTION, AND CONTACT WITH SKIN, EYES AND CLOTHING. DO NOT TASTE OR SWALLOW. REMOVE AND WASH CONTAMINATED CLOTHING AND FOOTWEAR BEFORE REUSE. PRODUCT RESIDUE MAY REMAIN IN EMPTY CONTAINERS. HANDLE CAREFULLY TO AVOID DAMAGING CONTAINER.

STORAGE: STORE TIGHTLY CLOSED ONLY IN ORIGINAL CORROSIVE-RESISTANT PLASTIC CONTAINER. STORE LOCKED UP. STORE AT AMBIENT TEMPERATURES IN A DRY AREA OUT OF DIRECT SUNLIGHT. PROTECT FROM FREEZING. ROTATE STOCK REGULARLY. KEEP AWAY FROM FOOD AND DRINK. KEEP OUT OF REACH OF CHILDREN.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

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EXPOSURE LIMITS: ALCOHOL ETHOXYLATES = NONE

SODIUM METASILICATE = NONE

2-BUTOXYETHANOL = 20 PPM TWA (ACGIH), 50 PPM TWA-SKIN, 240 MG/M3 TWA-SKIN (OSHA)

TETRASODIUM EDTA = NONE

ENGINEERING CONTROLS: NONE REQUIRED. GENERAL ROOM VENTILATION IS TYPICALLY ADEQUATE.**PERSONAL PROTECTION****EYES:** SAFETY GOGGLES (INDIRECT-VENTED OR NON-VENTED) AND AN EYE-WASH STATION.**HANDS:** CHEMICAL-RESISTANT PROTECTIVE GLOVES (RUBBER OR NEOPRENE).**RESPIRATORY:** SUITABLE RESPIRATOR IF MISTS/VAPORS ARE NOT CONTROLLED BY VENTILATION.**FEET:** RUBBER BOOTS DURING SPILL CLEAN-UP AND WHEN EXPOSURE IS POSSIBLE.**BODY:** RUBBER FULL-COVER PROTECTIVE CLOTHING WHEN EXPOSURE IS POSSIBLE.**9. PHYSICAL AND CHEMICAL PROPERTIES****APPEARANCE:** RED LIQUID**ODOR:** SOLVENT**pH CONCENTRATE:** ABOVE 13.0**pH @ 2500 PPM SOLUTION:** N.AV.**pH @ USE DILUTION:** N.AV.**PHYSICAL STATE:** LIQUID**RELATIVE DENSITY (WATER):** 1.072**SOLUBILITY (WATER):** COMPLETE**VAPOR PRESSURE:** N.AV.**VAPOR DENSITY:** N. AV.**VISCOSITY:** NON-VISCOUS**AUTO-IGNITION TEMPERATURE:** N.AV.**DECOMPOSITION TEMPERATURE:** N.AV.**EXPLOSIVE LIMITS (LEL/UEL):** NONE**EVAPORATION RATE:** N.AV.**FLAMMABILITY (SOLID, GAS):** N.AP.**FLASH POINT:** NONE**INITIAL BOILING POINT/RANGE:** N.AV.**MELTING POINT/FREEZING POINT:** N.AV.**ODOR THRESHOLD:** N.AV.**PARTITION COEFF. (N-OCTANOL/WATER):** N.AV**OTHER:** N.AV.**10. STABILITY AND REACTIVITY****REACTIVITY:** MIXING WITH INCOMPATIBLES CAN RELEASE HEAT + HAZARDOUS GASES.**CHEMICAL STABILITY:** STABLE.**POSSIBILITY OF HAZARDOUS REACTIONS:** SEE REACTIVITY. WILL NOT POLYMERIZE.**CONDITIONS TO AVOID:** TEMPERATURES BELOW 35°F (1.6°C) OR ABOVE 120°F (49°C).**MATERIALS TO AVOID:** ACIDS, METAL AND OTHER CLEANERS. MIX ONLY WITH WATER.**HAZARDOUS DECOMPOSITION PRODUCTS:** NONE UNDER NORMAL CONDITIONS.**11. TOXICOLOGICAL INFORMATION****ROUTES OF EXPOSURE:** EYES, SKIN, INGESTION, INHALATION.**INFORMATION ON ROUTES OF EXPOSURE:** NO LC50/LD50 TEST DATA ON MIXTURE.**ACUTE EFFECTS /SYMPTOMS:** CORROSIVE TO ALL BODY TISSUES.**EYES:** CAUSES SERIOUS EYE DAMAGE. MAY CAUSE PAIN, REDNESS AND WATERING.**SKIN:** CAUSES SEVERE SKIN BURNS. MAY CAUSE DELAYED PAIN, REDNESS AND BLISTERING.**INGESTION:** CAUSES BURNS AND SERIOUS DAMAGE TO MOUTH, THROAT AND STOMACH.**INHALATION:** MAY CAUSE CORROSIVE EFFECTS TO NOSE, THROAT, AND RESPIRATORY SYSTEM.**CHRONIC / OTHER EFFECTS:** NO REPORTABLE GERM CELL MUTAGENS, SKIN SENSITIZERS, RESPIRATORY SENSITIZERS, REPRODUCTIVE TOXINS OR ASPIRATION HAZARDS.**SPECIFIC TARGET ORGANS (SINGLE/REPEATED):** NONE KNOWN.**NUMERICAL MEASURES OF TOXICITY:** ATE_{mix} (ORAL-RAT) = ABOVE 2000 MG / KG**CARCINOGENS:** NO REPORTABLE ACGIH, IARC, NTP, OR OSHA CARCINOGENS.

12. ECOLOGICAL INFORMATION

Page 4 of 4

ECOTOXICITY / CHEMICAL FATE: NOT AVAILABLE.**13. DISPOSAL CONSIDERATIONS**

DISPOSAL METHOD: UNDILUTED PRODUCT IS REGULATED UNDER ENVIRONMENTAL AND TRANSPORTATION LAWS AS A CORROSIVE WASTE (RCRA CLASS D002). DISPOSE OF CONTENTS IN ACCORDANCE WITH ALL FEDERAL, STATE, AND LOCAL APPLICABLE LAWS AND REGULATIONS. CONSULT STATE AND LOCAL AUTHORITIES FOR RESTRICTIONS ON DISPOSAL OF CHEMICAL WASTE. MANAGE CHEMICAL WASTES THROUGH AN APPROVED WASTE TREATMENT FACILITY. DO NOT REUSE EMPTY CONTAINER. RINSE EMPTY CONTAINER THOROUGHLY WITH WATER BEFORE DISCARDING CONTAINER IN ACCORDANCE WITH CURRENT LOCAL COMMUNITY CODES. PLEASE RECYCLE EMPTY CONTAINER WHENEVER POSSIBLE.

14. TRANSPORT INFORMATION**DOT / IMDG / TDG:** UN3253, DISODIUM TRIOXOSILICATE SOLUTION, 8, III**15. REGULATORY INFORMATION****EPA CERCLA RQ:** NO**EPA REGISTERED:** NO**OSHA HAZARDOUS:** YES**PHOSPHORUS CONTENT:** 0.00%**PROPOSITION 65:** NO**SARA 311/312 HAZARDS:** ACUTE**SARA 313 CHEMICALS:** NO**STATE RIGHT TO KNOW:** WATER/7732-18-5, ALCOHOL ETHOXYLATES/68439-46-3, SODIUM METASILICATE/6834-92-0, 2-BUTOXYETHANOL/111-76-2, TETRASODIUM EDTA/64-02-8**TSCA INVENTORY STATUS:** ALL COMPONENTS ARE LISTED ON THE INVENTORY.**VOC:** 3.80% CALCULATION METHOD USED IS BASED ON CALIFORNIA ARB STANDARD.**16. OTHER INFORMATION****PREPARATION DATE:** 2-10-16 **PREPARED BY:** RC**REVISED SECTION:** 16**ABBREVIATIONS:** N.AV. = NOT AVAILABLE**N.AP. = NOT APPLICABLE****NOTICE TO READER**

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1. IDENTIFICATION

PRODUCT NAME: DE-IRON
RECOMMENDED USE: LAUNDRY SOUR
RESTRICTIONS ON USE: DO NOT USE IN A MANNER INCONSISTENT WITH THE LABEL.
LABEL BRAND: U S CHEMICAL
SDS 100997 CODE 4329559

U S CHEMICAL 316 HART STREET WATERTOWN, WI 53094 USA
MEDICAL EMERGENCY: 1-866-923-4913 USA
SPILL EMERGENCY: 1-800-424-9300 USA
PRODUCT INFORMATION: 1-800-558-9566 USA (8 A.M. TO 5 P.M. CST MONDAY TO FRIDAY)
INTERNET ADDRESS: WWW.USCHEMICAL.COM

2. HAZARD(S) IDENTIFICATION

CLASSIFICATION: SKIN CORROSION (CATEGORY 1B), EYE DAMAGE (CATEGORY 1), CORROSIVE TO METALS (CATEGORY 1), ACUTE TOXICITY: ORAL (CATEGORY 4) ACUTE TOXICITY: DERMAL (CATEGORY 4)

LABEL ELEMENTS

SIGNAL WORD: DANGER

PICTOGRAMS: CORROSION, EXCLAMATION MARK



HAZARD STATEMENTS: CAUSES SEVERE SKIN BURNS AND SERIOUS EYE DAMAGE. MAY BE CORROSIVE TO METALS. HARMFUL IF SWALLOWED. HARMFUL IN CONTACT WITH SKIN.

PRECAUTIONARY STATEMENTS: Wear chemical-splash safety goggles, chemical-resistant protective gloves and protective footwear. Avoid contact with eyes, skin and clothing. Do not breathe vapors or mists. Do not eat, drink, or smoke when using this product. Wash hands and affected areas thoroughly after handling. Absorb spillage to prevent material damage. Mix only with water. Do not mix with ammonia, bleach or other chlorinated compounds. Can react to release hazardous gases.

FIRST AID: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing for at least 15 minutes. **IF ON SKIN (OR HAIR):** Take off immediately all contaminated clothing. Rinse skin with water for at least 15 minutes. Call a poison center or physician if you feel unwell. Wash contaminated clothing before reuse. **IF SWALLOWED:** Rinse mouth. **Do NOT** induce vomiting. If conscious, dilute by drinking up to a cupful of milk or water as tolerated. Call a Poison Center or physician if you feel unwell. **IF INHALED:** Remove person to fresh air and keep comfortable for breathing.

START FIRST AID. IMMEDIATELY CALL A POISON CENTER OR PHYSICIAN.

EMERGENCY TELEPHONE: 1-866-923-4913

Storage: Store tightly closed only in original corrosive-resistant plastic container. Store locked up.

Disposal: Dispose of contents in accordance with all federal, state and local applicable laws and regulations.

KEEP OUT OF REACH OF CHILDREN. FOR COMMERCIAL AND INDUSTRIAL USE ONLY.

HAZARDS NOT OTHERWISE CLASSIFIED: Not applicable.

3. COMPOSITION / INFORMATION ON INGREDIENTS

HAZARDOUS INGREDIENT(S)	CAS #	WEIGHT %
HYDROFLUOROSILICIC ACID	16961-83-4	12.7
HYDROGEN FLUORIDE	7664-39-3	0.2
STATE RIGHT TO KNOW: SEE SECTION 15 FOR STATE RTK CHEMICAL NAMES IN MIXTURE.		

4. FIRST-AID MEASURES

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IF IN EYES: RINSE CAUTIOUSLY WITH WATER FOR SEVERAL MINUTES. REMOVE CONTACT LENSES, IF PRESENT AND EASY TO DO. CONTINUE RINSING FOR AT LEAST 15 MINUTES. **IF ON SKIN (OR HAIR):** TAKE OFF IMMEDIATELY ALL CONTAMINATED CLOTHING. RINSE SKIN WITH WATER FOR AT LEAST 15 MINUTES. CALL A POISON CENTER OR PHYSICIAN IF YOU FEEL UNWELL. WASH CONTAMINATED CLOTHING BEFORE REUSE. **IF SWALLOWED:** RINSE MOUTH. **Do NOT** INDUCE VOMITING. IF CONSCIOUS, DILUTE BY DRINKING UP TO A CUPFUL OF MILK OR WATER AS TOLERATED. CALL A POISON CENTER OR PHYSICIAN IF YOU FEEL UNWELL. **IF INHALED:** REMOVE PERSON TO FRESH AIR AND KEEP COMFORTABLE FOR BREATHING. **START FIRST AID. IMMEDIATELY CALL A POISON CENTER OR PHYSICIAN. EMERGENCY TELEPHONE: 1-866-923-4913**

MOST IMPORTANT SYMPTOMS / EFFECTS: HARMFUL IN CONTACT WITH SKIN. CAUSES SEVERE SKIN BURNS AND SERIOUS EYE DAMAGE. MAY CAUSE BLINDNESS WITHOUT IMMEDIATE FIRST AID. HARMFUL IF SWALLOWED. CAUSES BURNS AND SERIOUS DAMAGE TO MOUTH, THROAT AND STOMACH. CORROSIVE TO ALL BODY TISSUES.

MEDICAL CONDITIONS AGGRAVATED: NONE KNOWN.

NOTE TO PHYSICIAN: CALL 1-866-923-4913 FOR EXPOSURE MANAGEMENT ASSISTANCE.

5. FIRE-FIGHTING MEASURES

CHEMICAL HAZARDS: CORROSIVE. NON-FLAMMABLE.

COMBUSTION PRODUCT HAZARDS: OXIDES OF CARBON AND OTHER FUMES.

METHODS: SELECT EXTINGUISHER AND METHODS BASED ON FIRE SIZE AND TYPE.

EQUIPMENT: WEAR SCBA AND FULL PROTECTIVE GEAR AS CONDITIONS WARRANT.

NFPA RATING: HEALTH-3/FLAMMABILITY-0/ INSTABILITY-0/SPECIAL HAZARD-N.A.P.

SUITABLE EXTINGUISHERS: WATER, DRY CHEMICAL, CO2 OR FOAM SUITABLE FOR FIRE.

UNSUITABLE EXTINGUISHERS: NO RESTRICTIONS BASED ON CHEMICAL HAZARDS.

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS: EVACUATE UNPROTECTED PERSONNEL FROM AREA. WEAR PERSONAL PROTECTION INCLUDING RUBBER BOOTS. SEE SECTION 8. VENTILATE AREA IF NEEDED. BE CAREFUL NOT TO SLIP. WASH THOROUGHLY AFTER CLEAN-UP.

ENVIRONMENTAL PRECAUTIONS: PREVENT SPILL FROM ENTERING DRAIN, STORM SEWER OR SURFACE WATERWAY. PREVENT WATER AND SOIL CONTAMINATION.

CLEAN-UP METHODS: SMALL SPILLS MAY BE WIPED UP AND RINSED WITH WATER. FOR LARGER SPILLS, DIKE TO CONTAIN. PUMP TO LABELED CONTAINER OR ABSORB SPILLAGE AND SCOOP UP WITH INERT ABSORBENT MATERIAL. AFTER SPILL COLLECTION, RINSE AREA WITH WATER AND FOLLOW WITH NORMAL CLEAN-UP PROCEDURES.

7. HANDLING AND STORAGE

HANDLING: FOLLOW ALL LABEL DIRECTIONS. INSTRUCT PERSONNEL ABOUT PROPER USE, HAZARDS, PRECAUTIONS, AND FIRST AID MEASURES. AVOID INHALATION, INGESTION, AND CONTACT WITH SKIN, EYES AND CLOTHING. DO NOT TASTE OR SWALLOW. REMOVE AND WASH CONTAMINATED CLOTHING AND FOOTWEAR BEFORE REUSE. PRODUCT RESIDUE MAY REMAIN IN EMPTY CONTAINERS. HANDLE CAREFULLY TO AVOID DAMAGING CONTAINER.

STORAGE: STORE TIGHTLY CLOSED ONLY IN ORIGINAL CORROSIVE-RESISTANT PLASTIC CONTAINER. STORE LOCKED UP. STORE AT AMBIENT TEMPERATURES IN A DRY AREA OUT OF DIRECT SUNLIGHT. PROTECT FROM FREEZING. ROTATE STOCK REGULARLY. KEEP AWAY FROM FOOD AND DRINK. KEEP OUT OF REACH OF CHILDREN.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

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EXPOSURE LIMITS: HYDROFLUOROSILICIC ACID = 2.5 MG/M3 TWA FLUORIDES, AS F (ACGIH/OSHA)
HYDROGEN FLUORIDE = 0.5 PPM TWA, 2 PPM CEILING AS F (ACGIH), 3 PPM TWA AS F (OSHA)

ENGINEERING CONTROLS: NONE REQUIRED. GENERAL ROOM VENTILATION IS TYPICALLY ADEQUATE.

PERSONAL PROTECTION

EYES: SAFETY GOGGLES (INDIRECT-VENTED OR NON-VENTED) AND AN EYE-WASH STATION.

HANDS: CHEMICAL-RESISTANT PROTECTIVE GLOVES (RUBBER OR NEOPRENE).

RESPIRATORY: SUITABLE RESPIRATOR IF MISTS/VAPORS ARE NOT CONTROLLED BY VENTILATION.

FEET: RUBBER BOOTS DURING SPILL CLEAN-UP AND WHEN EXPOSURE IS POSSIBLE.

BODY: RUBBER FULL-COVER PROTECTIVE CLOTHING WHEN EXPOSURE IS POSSIBLE.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: LIGHT GREEN LIQUID

ODOR: PUNGENT

pH CONCENTRATE: BELOW 2.0 (ACIDIC)

pH @ 2500 PPM SOLUTION: N.AV.

pH @ USE DILUTION: N.AV.

PHYSICAL STATE: LIQUID

RELATIVE DENSITY (WATER): 1.110

SOLUBILITY (WATER): COMPLETE

VAPOR PRESSURE: N.AV.

VAPOR DENSITY: N. AV.

VISCOSITY: NON-VISCOUS

AUTO-IGNITION TEMPERATURE: N.AV.

DECOMPOSITION TEMPERATURE: N.AV.

EXPLOSIVE LIMITS (LEL/UEL): NONE

EVAPORATION RATE: N.AV.

FLAMMABILITY (SOLID, GAS): N.AP.

FLASH POINT: NONE

INITIAL BOILING POINT/RANGE: N.AV.

MELTING POINT/FREEZING POINT: N.AV.

ODOR THRESHOLD: N.AV.

PARTITION COEFF. (N-OCTANOL/WATER): N.AV

OTHER: N.AV.

10. STABILITY AND REACTIVITY

REACTIVITY: MIXING WITH INCOMPATIBLES CAN RELEASE HEAT + HAZARDOUS GASES.

CHEMICAL STABILITY: STABLE.

POSSIBILITY OF HAZARDOUS REACTIONS: SEE REACTIVITY. WILL NOT POLYMERIZE.

CONDITIONS TO AVOID: TEMPERATURES BELOW 35°F (1.6°C) OR ABOVE 120°F (49°C).

MATERIALS TO AVOID: BLEACH, METAL AND OTHER CLEANERS. MIX ONLY WITH WATER.

HAZARDOUS DECOMPOSITION PRODUCTS: NONE UNDER NORMAL CONDITIONS.

11. TOXICOLOGICAL INFORMATION

ROUTES OF EXPOSURE: EYES, SKIN, INGESTION, INHALATION.

INFORMATION ON ROUTES OF EXPOSURE: NO LC50/LD50 TEST DATA ON MIXTURE.

ACUTE EFFECTS /SYMPTOMS: CORROSIVE TO ALL BODY TISSUES.

EYES: CAUSES SERIOUS EYE DAMAGE. MAY CAUSE PAIN, REDNESS AND WATERING.

SKIN: CAUSES SEVERE SKIN BURNS. HARMFUL IN CONTACT WITH SKIN. MAY CAUSE DELAYED PAIN, REDNESS AND BLISTERING.

INGESTION: CAUSES BURNS AND SERIOUS DAMAGE TO MOUTH, THROAT AND STOMACH.

INHALATION: MAY CAUSE CORROSIVE EFFECTS TO NOSE, THROAT, AND RESPIRATORY SYSTEM.

CHRONIC / OTHER EFFECTS: NO REPORTABLE GERM CELL MUTAGENS, SKIN SENSITIZERS, RESPIRATORY SENSITIZERS, REPRODUCTIVE TOXINS OR ASPIRATION HAZARDS.

SPECIFIC TARGET ORGANS (SINGLE/REPEATED): NONE KNOWN.

NUMERICAL MEASURES OF TOXICITY: ATEmix (ORAL)= 905 MG / KG,

ATEmix (DERMAL) = 1070 MG / KG, ATEmix (INHALATION VAPOR) = ABOVE 50 MG / L,

ATEmix (INHALATION MIST) = 5 MG / L

CARCINOGENS: NO REPORTABLE ACGIH, IARC, NTP, OR OSHA CARCINOGENS.

12. ECOLOGICAL INFORMATION

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ECOTOXICITY / CHEMICAL FATE: NOT AVAILABLE.**13. DISPOSAL CONSIDERATIONS**

DISPOSAL METHOD: UNDILUTED PRODUCT IS REGULATED UNDER ENVIRONMENTAL AND TRANSPORTATION LAWS AS A CORROSIVE WASTE (RCRA CLASS D002). DISPOSE OF CONTENTS IN ACCORDANCE WITH ALL FEDERAL, STATE, AND LOCAL APPLICABLE LAWS AND REGULATIONS. CONSULT STATE AND LOCAL AUTHORITIES FOR RESTRICTIONS ON DISPOSAL OF CHEMICAL WASTE. MANAGE CHEMICAL WASTES THROUGH AN APPROVED WASTE TREATMENT FACILITY. DO NOT REUSE EMPTY CONTAINER. RINSE EMPTY CONTAINER THOROUGHLY WITH WATER BEFORE DISCARDING CONTAINER IN ACCORDANCE WITH CURRENT LOCAL COMMUNITY CODES. PLEASE RECYCLE EMPTY CONTAINER WHENEVER POSSIBLE.

14. TRANSPORT INFORMATION**DOT / IMDG / TDG:** UN1778, FLUOROSILICIC ACID, 8, II**15. REGULATORY INFORMATION**

EPA CERCLA RQ: NO
EPA REGISTERED: NO
OSHA HAZARDOUS: YES
PHOSPHORUS CONTENT: 0.00%
PROPOSITION 65: NO
SARA 311/312 HAZARDS: ACUTE
SARA 313 CHEMICALS: NO
STATE RIGHT TO KNOW: WATER/7732-18-5, HYDROFLUOROSILICIC ACID/16961-83-4, HYDROGEN FLUORIDE/7664-39-3
TSCA INVENTORY STATUS: ALL COMPONENTS ARE LISTED ON THE INVENTORY.
VOC: 0.00% CALCULATION METHOD USED IS BASED ON CALIFORNIA ARB STANDARD.

16. OTHER INFORMATION

PREPARATION DATE: 6-6-14 **PREPARED BY:** RC **REVISED SECTION:** 16
ABBREVIATIONS: N.AV. = NOT AVAILABLE N.AP. = NOT APPLICABLE

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Sodium Citrate, Lab Grade

SECTION 1 : Identification of the substance/mixture and of the supplier

Product name : Sodium Citrate, Lab Grade

Manufacturer/Supplier Trade name:

Manufacturer/Supplier Article number: S25545

Recommended uses of the product and uses restrictions on use:

Manufacturer Details:

AquaPhoenix Scientific
9 Barnhart Drive, Hanover, PA 17331

Supplier Details:

Fisher Science Education
15 Jet View Drive, Rochester, NY 14624

Emergency telephone number:

Fisher Science Education Emergency Telephone No.: 800-535-5053

SECTION 2 : Hazards identification

Classification of the substance or mixture:

Not classified for physical or health hazards under GHS.

Hazard statements:

Causes serious eye irritation

Precautionary statements:

If medical advice is needed, have product container or label at hand

Keep out of reach of children

Read label before use

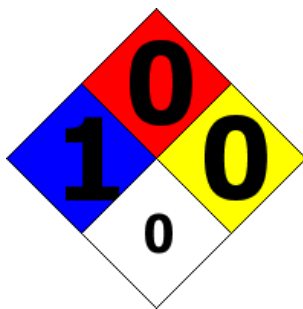
Do not eat, drink or smoke when using this product

Combustible Dust Hazard: :

May form combustible dust concentrations in air (during processing).

Other Non-GHS Classification:

**WHMIS
NFPA/HMIS**



NFPA SCALE (0-4)

Health	1
Flammability	0
Physical Hazard	0
Personal Protection	X

HMIS RATINGS (0-4)

SECTION 3 : Composition/information on ingredients

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Sodium Citrate, Lab Grade

Ingredients:

CAS 6132-04-3

Sodium Citrate , Dihydrate

100 %

Percentages are by weight

SECTION 4 : First aid measures

Description of first aid measures

After inhalation: Remove to fresh air. Give artificial respiration if necessary. If breathing is difficult, give oxygen. Move exposed individual to fresh air. Loosen clothing as necessary and position individual in a comfortable position. Seek medical advice if discomfort or irritation persists. If breathing difficult, give oxygen.

After skin contact: Flush with water for 15 minutes. Get medical assistance if irritation develops. Wash affected area with soap and water. Rinse thoroughly. Seek medical attention if irritation, discomfort or vomiting persists.

After eye contact: Immediately flush eyes with water for at least 15 minutes. Immediately get medical assistance. Protect unexposed eye. Rinse/flush exposed eye(s) gently using water for 15-20 minutes. Remove contact lens(es) if able to do so during rinsing. Seek medical attention if irritation persists or if concerned.

After swallowing: DO NOT induce vomiting. Get medical assistance. Rinse mouth thoroughly. Do not induce vomiting. Have exposed individual drink sips of water. Seek medical attention if irritation, discomfort or vomiting persists.

Most important symptoms and effects, both acute and delayed:

Irritation, Nausea, Headache, Shortness of breath.;

Indication of any immediate medical attention and special treatment needed:

If seeking medical attention, provide SDS document to physician. Note to physician: Treat symptomatically.

SECTION 5 : Firefighting measures

Extinguishing media

Suitable extinguishing agents: If in laboratory setting, follow laboratory fire suppression procedures. Use appropriate fire suppression agents for adjacent combustible materials or sources of ignition

For safety reasons unsuitable extinguishing agents:

Special hazards arising from the substance or mixture:

Combustion products may include carbon oxides or other toxic vapors. Thermal decomposition can lead to release of irritating gases and vapors. Avoid generating dust; fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.

Advice for firefighters:

Protective equipment: Use NIOSH-approved respiratory protection/breathing apparatus.

Additional information (precautions): Move product containers away from fire or keep cool with water spray as a protective measure, where feasible. Use spark-proof tools and explosion-proof equipment.

SECTION 6 : Accidental release measures

Personal precautions, protective equipment and emergency procedures:

Wear protective equipment. Transfer to a disposal or recovery container. Avoid contact with skin and eyes, and clothing. Use spark-proof tools and explosion-proof equipment. Use respiratory protective device against the effects of fumes/dust/aerosol. Keep unprotected persons away. Ensure adequate ventilation. Keep away from ignition sources. Protect from heat. Stop the spill, if possible. Contain spilled material by diking or using inert absorbent.

Environmental precautions:

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Sodium Citrate, Lab Grade

Prevent from reaching drains, sewer or waterway. Collect contaminated soil for characterization per Section 13. Liquid may be flushed to sewer if regulations allow.

Methods and material for containment and cleaning up:

If in a laboratory setting, follow Chemical Hygiene Plan procedures. Collect liquids using vacuum or by use of absorbents. Place into properly labeled containers for recovery or disposal. If necessary, use trained response staff/contractor. Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration. Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air). Always obey local regulations.

Reference to other sections:

SECTION 7 : Handling and storage

Precautions for safe handling:

Minimize dust generation and accumulation. Wash hands after handling. Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air). Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. Dry powders can build static electricity charges when subjected to the friction of transfer and mixing operations. Follow good hygiene procedures when handling chemical materials. Do not eat, drink, smoke, or use personal products when handling chemical substances. If in a laboratory setting, follow Chemical Hygiene Plan. Use only in well ventilated areas. Avoid generation of dust or fine particulate. Avoid contact with eyes, skin, and clothing.

Conditions for safe storage, including any incompatibilities:

Store in a cool location. Provide ventilation for containers. Avoid storage near extreme heat, ignition sources or open flame. Store away from foodstuffs. Store away from oxidizing agents. Store in cool, dry conditions in well sealed containers. Keep container tightly sealed.

SECTION 8 : Exposure controls/personal protection



Control Parameters:

No applicable occupational exposure limits

Appropriate Engineering controls:

Emergency eye wash fountains and safety showers should be available in the immediate vicinity of use/handling. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapor or dusts (total/respirable) below the applicable workplace exposure limits (Occupational Exposure Limits-OELs) indicated above. Use under a fume hood. It is recommended that all dust control equipment such as local exhaust ventilation and material transport systems involved in handling of this product contain explosion relief vents or an explosion suppression system or an oxygen deficient environment. Ensure that dust-handling systems (such as exhaust ducts, dust collectors, vessels, and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e., there is no leakage from the equipment).

Respiratory protection:

Not required under normal conditions of use. Use suitable respiratory protective device when high concentrations are present. Use suitable respiratory protective device when aerosol or mist is formed. For spills, respiratory protection may be advisable.

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Protection of skin:

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation being used/handled. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.

Eye protection:

Safety glasses with side shields or goggles.

General hygienic measures:

The usual precautionary measures are to be adhered to when handling chemicals. Keep away from food, beverages and feed sources. Immediately remove all soiled and contaminated clothing. Wash hands before breaks and at the end of work. Do not inhale gases/fumes/dust/mist/vapor/aerosols. Avoid contact with the eyes and skin.

SECTION 9 : Physical and chemical properties

Appearance (physical state,color):	White solid	Explosion limit lower: Explosion limit upper:	Not Determined Not Determined
Odor:	Odorless	Vapor pressure:	Not Determined
Odor threshold:	Not Determined	Vapor density:	Not Determined
pH-value:	7.0-9.0 (5% solution)	Relative density:	1.665
Melting/Freezing point:	313.9°C / 597°F	Solubilities:	Soluble
Boiling point/Boiling range:	Not Determined	Partition coefficient (n-octanol/water):	Not Determined
Flash point (closed cup):	Not Determined	Auto/Self-ignition temperature:	Not Determined
Evaporation rate:	Not Determined	Decomposition temperature:	Not Determined
Flammability (solid,gaseous):	Not Determined	Viscosity:	a. Kinematic:Not Determined b. Dynamic: Not Determined
Density: Not Determined Specific Gravity: :1.665			

SECTION 10 : Stability and reactivity

Reactivity:

Chemical stability:No decomposition if used and stored according to specifications.Stable at room temperature in closed containers under normal storage and handling.

Possible hazardous reactions:

Conditions to avoid:Store away from oxidizing agents, strong acids or bases.Incompatible materials, dust generation, excess heat.

Incompatible materials:Strong acids.Strong bases.Oxidizing agents.

Hazardous decomposition products:Carbon oxides (CO, CO₂).Carbon monoxide, irritating and toxic fumes and gases, carbon dioxide.

SECTION 11 : Toxicological information

Acute Toxicity: No additional information.

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Chronic Toxicity: No additional information.	
Corrosion Irritation: No additional information.	
Sensitization:	No additional information.
Single Target Organ (STOT):	No additional information.
Numerical Measures:	No additional information.
Carcinogenicity:	No additional information.
Mutagenicity:	No additional information.
Reproductive Toxicity:	No additional information.

SECTION 12 : Ecological information

Ecotoxicity Persistence and degradability: Readily degradable in the environment.

Bioaccumulative potential:

Mobility in soil:

Other adverse effects:

SECTION 13 : Disposal considerations

Waste disposal recommendations:

It is the responsibility of the waste generator to properly characterize all waste materials according to applicable regulatory entities (US 40CFR262.11). Consult federal state/ provincial and local regulations regarding the proper disposal of waste material that may incorporate some amount of this product. Dilute with water and flush to sewer.

SECTION 14 : Transport information

UN-Number

Not Dangerous Goods

UN proper shipping name

Not Dangerous Goods

Transport hazard class(es)

Packing group: Not Dangerous Goods

Environmental hazard:

Transport in bulk:

Special precautions for user:

SECTION 15 : Regulatory information

United States (USA)

SARA Section 311/312 (Specific toxic chemical listings):

None of the ingredients is listed

SARA Section 313 (Specific toxic chemical listings):

None of the ingredients is listed

RCRA (hazardous waste code):

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None of the ingredients is listed

TSCA (Toxic Substances Control Act):

All ingredients are listed.

CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act):

None of the ingredients is listed

Proposition 65 (California):

Chemicals known to cause cancer:

None of the ingredients is listed

Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed

Chemicals known to cause reproductive toxicity for males:

None of the ingredients is listed

Chemicals known to cause developmental toxicity:

None of the ingredients is listed

Canada

Canadian Domestic Substances List (DSL):

All ingredients are listed.

Canadian NPRI Ingredient Disclosure list (limit 0.1%):

None of the ingredients is listed

Canadian NPRI Ingredient Disclosure list (limit 1%):

None of the ingredients is listed

SECTION 16 : Other information

This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations. Note: The responsibility to provide a safe workplace remains with the user. The user should consider the health hazards and safety information contained herein as a guide and should take those precautions required in an individual operation to instruct employees and develop work practice procedures for a safe work environment. The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by the use of this material. It is the responsibility of the user to comply with all applicable laws and regulations applicable to this material.

GHS Full Text Phrases:

Abbreviations and acronyms:

IMDG: International Maritime Code for Dangerous Goods

PNEC: Predicted No-Effect Concentration (REACH)

CFR: Code of Federal Regulations (USA)

SARA: Superfund Amendments and Reauthorization Act (USA)

RCRA: Resource Conservation and Recovery Act (USA)

TSCA: Toxic Substances Control Act (USA)

NPRI: National Pollutant Release Inventory (Canada)

DOT: US Department of Transportation

IATA: International Air Transport Association

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

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Sodium Citrate, Lab Grade

ACGIH: American Conference of Governmental Industrial Hygienists

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

WHMIS: Workplace Hazardous Materials Information System (Canada)

DNEL: Derived No-Effect Level (REACH)

Effective date : 12.15.2014

Last updated : 03.19.2015

SODIUM HYDROXIDE 5-51%
Code : 16124
SECTION 1. Identification of the substance/mixture and of the company/undertaking
1.1. Product identifier

Chemical description : Sodium hydroxide , Caustic soda , solution (5-51%).
Type of product : Pure product in solution .
Reach registration number : 01-2119457892-27

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified use(s) : See table on the front page of the annex.

- * Use(s) advised against : This product is not recommended for any industrial, professional or consumer use other than identified in table on the front page of the annex.
Not for use in ornamental articles, in tricks and jokes and in games (in accordance with Annex XVII to Regulation (EC) No 1907/2006) (3. Liquid substances or mixtures, which are fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: (a) hazard classes 2.1 to 2.4, 2.6 and 2.7, 2.8 types A and B, 2.9, 2.10, 2.12, 2.13 categories 1 and 2, 2.14 categories 1 and 2, 2.15 types A to F, (b) hazard classes 3.1 to 3.6, 3.7 adverse effects on sexual function and fertility or on development, 3.8 effects other than narcotic effects, 3.9 and 3.10, (c) hazard class 4.1, (d) hazard class 5.1).

1.3. Details of the supplier of the safety data sheet

Company identification : BRENNTAG N.V. - Nijverheidslaan 38 - BE-8540 DEERLIJK
TEL: +32(0)56/77.69.44 - FAX: +32(0)56/77.57.11
E-MAIL: info@brenntag.be - Website: www.brenntag.be

BRENNTAG Nederland B.V. - Donker Duyvisweg 44 - NL-3316 BM DORDRECHT
TEL: +31(0)78/65.44.944 - FAX: +31(0)78/65.44.919
E-MAIL: info@brenntag.nl - Website: www.brenntag.nl

1.4. Emergency telephone number

Emergency phone number : Belgium : Antipoison Center - Brussels
TEL: +32(0)70/245.245

The Netherlands : National Poisoning Information Center - Bilthoven
TEL: +31(0)30/274.88.88 (Only for the purpose of informing medical personnel in cases of acute intoxications)

SECTION 2. Hazards identification
2.1. Classification of the substance or mixture
Classification according to Regulation (EC) No 1272/2008

Corrosive to metals - Category 1 - Warning (Met. Corr. 1; H290)
Skin corrosion - Category 1A - Danger (Skin Corr. 1A; H314)

2.2. Label elements
Label in accordance with Regulation (EC) No 1272/2008

- Dangerous ingredient(s) : Sodium hydroxide
- Hazard pictogram(s)



- Signal word : Danger
- Hazard statements : H290 - May be corrosive to metals. H314 - Causes severe skin burns and eye damage.

SODIUM HYDROXIDE 5-51%

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SECTION 2. Hazards identification (continued)

- Precautionary statements
 - Prevention : P260 - Do not breathe dust/fume/gas/mist/vapours/spray. P280 - Wear protective gloves/protective clothing/eye protection/face protection.
 - Response : P303+P361+P353 - IF ON SKIN (or hair) : Remove immediately all contaminated clothing. Rinse skin with water/shower. P305+P351+P338 - IF IN EYES : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P310 -Immediately call a POISON CENTER/ doctor/...
 - Disposal considerations : P501 - Dispose of this material and its container to hazardous or special waste collection point.

2.3. Other hazards

- Physical/chemical hazards : Product reacts violently and explosive when contact with organic substances, reducing substances, metals and when contamination with dust (exotherm reaction).
- Hazards for the health : A health dangerous concentration in the air will not or very slowly be reached by evaporation of this substance at app. 20°C; by spraying much faster.
- Hazards for the environment : Product causes a strong rise of the pH-value of water and soil. This product is no substance or contains no PBT or vPvB (in accordance with Annex XIII).
- Hazards for the safety : Risk of explosion by many reactions.

SECTION 3. Composition/information on ingredients

3.1. Substances

Name component(s)	Weight %	CAS nr	EINECS nr	Index nr	Reach nr	CLASSIFICATION
Sodium hydroxide	: 5 -51 %	1310-73-2	215-185-5	011-002-00-6	01-2119457892-27	Met. Corr. 1; H290 Skin Corr. 1A; H314

Note: SCL applicable

The full text of the (EU)H-statements is in section 16.

SECTION 4. First aid measures

4.1. Description of first aid measures

- General : In case of doubt or persistent symptoms, call a physician.
Never give anything by mouth to an unconscious person.
- First Aid Measures
 - Inhalation : Remove victim into fresh air.
Allow the affected person to rest in semi-sitting position.
If not breathing, give artificial respiration.
Seek medical attention immediately.
 - * - Skin Contact : Remove contaminated clothing and shoes while rinsing.
Rinse skin immediately with mild soap and plenty of water. (at least 20') (shower if necessary).
Immediately call a POISON CENTER or doctor/physician.
 - * - Eye Contact : Rinse immediately thoroughly and long (at least 15 min.) with plenty of water.
Remove contact lenses after a few minutes rinse.
Immediately call a POISON CENTER or doctor/physician.
Keep rinsing or dripping the eye during transport.
 - Ingestion : DO NOT INDUCE VOMITING. Rinse mouth.
Give victim plenty of water to drink.
Take the patient IMMEDIATELY to the hospital.

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SECTION 4. First aid measures (continued)

4.2. Most important symptoms and effects, both acute and delayed

See section 11.

4.3. Indication of any immediate medical attention and special treatment needed

For specialist advice doctors should contact the NVCI or the Belgian Poison center.

SECTION 5. Firefighting measures

5.1. Extinguishing media

Extinguishing Media

- Suitable : Extinguishing powder , Foam , Water spray .
- Unsuitable : Heavy water stream , Carbon dioxide (CO2) .

5.2. Special hazards arising from the substance or mixture

Special Exposure Hazards : Fire may liberate toxic and stinging vapours.

5.3. Advice for firefighters

- Special Protective Equipment for Firefighters : Use self-contained breathing apparatus and wear protective clothes when in close proximity to fire.
- Special Procedures : Apply water spray or fog to cool nearby equipment. Avoid fire-fighting water to enter environment.

SECTION 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal Precautions : Evacuate all personnel immediately and ventilate area.
Avoid breathing vapour and contact with skin, eyes and clothing. Wear recommended personal protective equipment. (See section 8)

6.2. Environmental precautions

Environmental Precautions : Shut off leaks if without risks.
Dike in the spilled product as much as possible with inert material.
Prevent entry of product in public water, sewers or soil.
Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

Methods for Cleaning Up : Collect the spillage in closable, corrosion resistant, suitable disposal containers.
Dilute spilled liquid immediately with plenty of water - neutralise with acid.
Rinse abundantly with water.

6.4. Reference to other sections

For personal protection, see section 8.
For the removal of the waste product, see section 13.

SECTION 7. Handling and storage

7.1. Precautions for safe handling

Handling : AVOID FOG TRANSFORMATION ! AVOID EVERY CONTACT !!
Avoid breathing vapour and contact with skin, eyes and clothing. Wear recommended personal protective equipment. (See section 8)
When diluting: add the basic solution in water, never the other way around.
When dissolving or diluting the product in water, heat and mist may develop.
When using, do not eat, drink or smoke.
Emergency eye wash fountains and showers should be available in the immediate

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SECTION 7. Handling and storage (continued)

vicinity of any potential exposure.

7.2. Conditions for safe storage, including any incompatibilities

- Storage : Keep only in the original, safely locked container in a cool and well ventilated place. All dangerous products should be placed on a drip tray or should be barreled. Keep away from : Oxidizing agents , Acids .
- Packaging Material : Stainless steel , Nickel , Polyethylene , Polypropylene , PVC.
- Insuitable Packaging Material : Several metals (Aluminium , Magnesium , Copper , Zinc (+ Alloys)), Polyester .

7.3. Specific end use(s)

For identified uses, see subsection 1.2 and/or exposure scenarios.

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

- * Occupational Exposure Limits : Sodium hydroxide : Limit value (BE) : 2 mg/m³ (2014) (M)
(M) The mention "M" means that the exposition above the limit value causes irritation or that there is a danger for acute poisoning. The work procedure has to be designed somehow or other that the exposition doesn't exceed the limit value. During a control, the sample period should be so short as possible to carry out a reliable measurement. The mesure result is then related to the considered period.
- Biological limit values : They will be included when available.
- DNELs : • Sodium hydroxide : Worker, long-term - local effects, inhalation : 1,0 mg/m²
• Sodium hydroxide : Consumer, long-term - local effects, inhalation : 1,0 mg/m³
- PNECs : • Sodium hydroxide : Not applicable

8.2. Exposure controls

- Engineering Measures : Ventilation , Local exhaust .
- Personal Protection Equipment
- Respiratory protection : CE-approved gas respirator (Filter type B/P2).
 - Skin protection : Corrosion-proof protective clothing.
 - * - Hand protection : Suitable material for safety gloves (EN 374):
The suitability of the gloves and the breakthrough time for a specific workplace should be discussed with the producers of the protective gloves.
- material : Nitril rubber
- thickness : 0,35 mm
- breakthrough time : > 480'
 - Eye/Face protection : Closed safety glasses or face shield.
 - Environmental exposure controls : See sections 6, 7, 12 and 13.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

See technical data sheet for detailed information.

- Physical State (20°C) : Liquid .
- Form/Colour : Clear , Colourless .
- Odour : Odourless .
- Odour threshold : Not applicable.
- pH value : > 14
- Melting/Freezing point : -17 °C (10%)
12 °C (50%)

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SECTION 9. Physical and chemical properties (continued)

Boiling Point/Range (1013 hPa)	: 111 - 145 °C
Flash point	: Not applicable.
Fire hazard	: Not applicable.
Evaporation rate	: No data available.
Explosion limits in air	: Not applicable.
Vapour pressure (20°C)	: 0,1 -1,4 kPa (10-50%)
Relative vapour density (air=1)	: No data available.
* Relative density of saturated vapour/air mixture (air=1)	: No data available.
Relative density	: 1,11 - 1,53
Solubility in water	: Complete solubility .
Soluble in	: Ethanol , Methanol , Glycerol .
Log P Octanol/Water (20°C)	: Inorganic
Auto-ignition temperature	: Not applicable.
Minimum ignition energy	: Not applicable.
Decomposition temperature	: No data available.
Viscosity (20°C)	: 69 mPa.s
Explosive properties	: No chemical groups associated with explosive properties .
Oxidizing properties	: No chemical groups associated with oxidizing properties .

SECTION 10. Stability and reactivity

10.1. Reactivity

Reactivity	: Reacts violently with: Halogenated hydrocarbons , Ammonium salts , Acids , Water . Corrosive to metals.
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10.2. Chemical stability

Stability	: Stable at normal circumstances .
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10.3. Possibility of hazardous reactions

Hazardous reactions	: Exothermic reaction with: Water , Acids . Contact with metallic substances may release inflammable hydrogen gas. Reacts with Ammonium salts -> Creation of: Ammonia . Can react with sugar residues to form Carbon monoxide.
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10.4. Conditions to avoid

Conditions to avoid	: Contact with water.
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10.5. Incompatible materials

Materials to avoid	: Halogenated hydrocarbons , Ammonium salts , Acids , Aluminium , Magnesium , Copper , Zinc , Wool , Lether , Polyester .
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10.6. Hazardous decomposition products

Hazardous Decomposition Products	: Ammonia , Hydrogen .
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SECTION 11. Toxicological information

11.1. Information on toxicological effects

Acute toxicity	
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SECTION 11. Toxicological information (continued)

* - Inhalation	: Symptoms include: Sore throat , Cough , Shortness of breath . • Sodium hydroxide : LC50 (Rat, inhalation, 4 h) : No data available.
* - Skin contact	: Symptoms include: Redness , Pain , Severe burns . • Sodium hydroxide : LD50 (Rabbit, dermal) : No data available.
* - Ingestion	: Symptoms include: Sore throat , Abdominal cramps , Vomiting , Diarrhea . • Sodium hydroxide : LD50 (Rat, oral) : No data available.
Skin corrosion/irritation	: Causes severe burns. Skin contact can damage eczema.
Serious eye damage/irritation	: May cause diminished visual capacity to complete blindness. Causes serious eye damage.
Aspiration hazard	: Symptoms of lung oedema mostly reveal after a few hours, intensified by physical effort. The product may affect the upper and lower airways, causing infections and impaired lung function.
Respiratory or skin sensitisation	: Not sensitive .
Carcinogenicity	: Not listed as carcinogenic .
Mutagenicity	: Not listed as mutagenic .
Reproductive toxicity	: Not listed for reproductive toxicity .
Specific target organ toxicity - single exposure	: To human : Listed not for organ toxicity .
Specific target organ toxicity - repeated exposure	: To human : Listed not for organ toxicity . For animals : No effects known.

SECTION 12. Ecological information

12.1. Toxicity

* Ecotoxicity	: • Sodium hydroxide : LC50 (Fish, 96 h) : 35-189 mg/l • Sodium hydroxide : EC50 (Algae, 72 h) : No data available. • Sodium hydroxide : EC50 (Daphnia magna, 48 h) : 40,4 mg/l (Ceriodaphnia sp.)
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12.2. Persistence and degradability

Persistence and degradability	: • Sodium hydroxide : Persistence and degradability : Inorganic .
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12.3. Bioaccumulative potential

Bioaccumulation	: • Sodium hydroxide : Bioaccumulation : Bioaccumulation not expected .
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12.4. Mobility in soil

* Mobility	: • Sodium hydroxide : Mobility : Very high potential for mobility in soil.
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12.5. Results of PBT and vPvB assessment

Evaluation	: • Sodium hydroxide : PBT/vPvB : No
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12.6. Other adverse effects

Photochemical ozone creation potential	: No data available .
Ozone depletion potential	: None .
Endocrine disrupting potential	: No data available .
Global warming potential	: No data available .

SECTION 13. Disposal considerations

13.1. Waste treatment methods

Waste from residues/Unused products	: The product has to be destroyed according to national or local legislation, by a company specialised in handling hazardous waste products.
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SODIUM HYDROXIDE 5-51%
Code : 16124
SECTION 13. Disposal considerations (continued)

- European list of waste products : XXXXXX - European waste product code. This code is assigned on the basis of the most current applications and can not be representative for pollutions which are arisen at the effective use of the product. The producer of the waste has to evaluate its process himself and has to grant the appropriate waste coding. See Decision 2001/118/EC.
- Removal contaminated packaging : Packing is to be used exclusively for the packing of this product. After use, empty and close the packing very carefully. In case of returned packing, the empty packing can be offered back to the supplier.

SECTION 14. Transport information
14.1. UN number

UN Number : 1824

14.2. UN proper shipping name

ADR/RID Name : UN 1824 Sodium hydroxide solution, 8, II, (E)
ADN Name : UN 1824 Sodium hydroxide solution , 8, II
IMDG Name : UN 1824 Sodium hydroxide, solution , 8, II
IATA Name : UN 1824 Sodium hydroxide, solution , 8, II

14.3. Transport hazard classe(s)

Class : 8

14.4. Packing group

Packaging Group : II

14.5. Environmental hazards

Environmentally hazard : No
Marine pollutant : No

14.6. Special precautions for user

Danger number : 80
Hazard Label(s) : 8
EmS-N° : F-A S-B

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

Type ship : No data available.
Pollution category : No data available.

SECTION 15. Regulatory information
15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

- Inventories : Australian inventory (AICS): Listed in inventory.
Canadian inventory (DSL): Listed in inventory.
Chinese inventory (IECS): Listed in inventory.
European inventory (EINECS): Listed in inventory.
Korean inventory (KECI): Listed in inventory.
Philippine inventory (PICCS): Listed in inventory.
Inventory of the United States (TSCA): Listed in inventory.
- NFPA n° : 3-0-1
- Relevant EU Rule(s) : Directive 98/24/EC of the Council of 7 April 1998 on the protection of the health and safety of workers from the risks related to chemical agents at work
Decision 2001/118/EC of the Commission of 16 January 2001 amending Decision 2000/532/EC as regards the list of wastes
Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16

SODIUM HYDROXIDE 5-51%

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SECTION 15. Regulatory information (continued)

December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006
Regulation (EU) No 453/2010 of 20 May 2010 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (Reach)

- * The restrictions in Annex XVII to Regulation (EC) No 1907/2006 must be observed.

National regulations

- * - Germany : WGK : 1
- * - Netherlands : Water damaging : 11
Decontamination exertion : B

15.2. Chemical Safety Assessment

- * A chemical safety assessment has been carried out for the material.

SECTION 16. Other information

- * This safety data sheet has been drawn up in accordance with Regulation (EC) No 1907/2006.
This safety data sheet is exclusively made for industrial/professional use.

* Has changed compared to previous revision.

- * Changes : Section 1 , Section 2 , Section 3 , Section 8 , Section 9 , Section 11 , Section 12 , Section 16 .
- * Sources of used key data : The information contained herein is based on the present state of our knowledge (Producer(s) , Chemical cards , ...)
See also on the webaddress:
<http://apps.echa.europa.eu/registered/registered-sub.aspx#search>
- (EU)H-statement(s) : H290 - May be corrosive to metals.
H314 - Causes severe skin burns and eye damage.
- * Classification procedure : Met. Corr. 1; H290 - Based on test data (producer of component)
Skin Corr. 1A; H314 - Additivity method
- List of abbreviations and acronyms : ADN (Accord européen relatif au transport international des marchandises Dangereuses par voie de Navigation interieur) : European agreement concerning the international carriage of dangerous goods by inland waterways
ADR (Accord européen relatif au transport international des marchandises Dangereuses par Route) : European agreement concerning the international carriage of dangerous goods by road
CO : Carbon monoxide
DNEL (Derived No Effect Level) : an estimated safe exposure level
EC50 : median Effective Concentration
EmS (Emergency Schedule) : the first code refers to the relevant fire schedule and the second code refers to the relevant spillage schedule
Eye Dam. 1 : Serious eye damage - Category 1
IATA (International Air Transport Association) : provisions concerning the international carriage of dangerous goods by air
IMDG (International Maritime Dangerous Goods code)
LC50 : median Lethal Concentration
LD50 : median Lethal Dose
Met. Corr. 1 : Corrosive to metals - Category 1
NFPA (National Fire Protection Association) or fire diamant
NVC1 : National Poisoning Information Center
OECD : Organisation for Economic Cooperation and Development
PBT : persistent, bioaccumulative and toxic
PNEC (Predicted No Effect Concentration) : concentration below which exposure to a substance is not expected to cause adverse effects

SODIUM HYDROXIDE 5-51%**Code : 16124****SECTION 16. Other information (continued)**

RCP (Reciprocal Calculation Procedure)
REACH : Registration, Evaluation, Authorisation and restriction of Chemicals
RID (Règlement concernant le transport International ferroviaire des marchandises Dangereuses) : Regulation concerning the International carriage of Dangerous goods by rail
SCL (Specific Concentration Limits)
Skin Corr. 1A : Skin corrosion - Category 1A
TWA (Time-Weighted Average) : the average exposure over a specified period
WGK (Wassergefährdungsklasse) : a German classification of substances that indicate the environmental hazard for surface water
vPvB : very persistent and very bioaccumulative

This information is to our knowledge correct and complete on the date of issue of this safety data sheet. The information only concerns the product and does not give any guarantee for the quality and the completeness of the properties of the product, or in case of mixing or using in any other process. It remains the responsibility of the user to assure himself that the information is suitable and complete concerning the special use he makes of the product.

BRENNTAG denies all responsibility for loss or damage resulting from the use of these data.

End of document

SAFETY DATA SHEET according to Regulation (EC) No. 1907/2006

Sodium hydroxide

Version 1.1

Print Date 30.01.2013

Revision Date 30.01.2013

No.	Short title	Main User Group (SU)	Sector of Use (SU)	Product Category (PC)	Process Category (PROC)	Environmental Release Category (ERC)	Article Category (AC)	Specified
1	Manufacture of substance - liquid	3	8	NA	1, 2, 3, 4, 8a, 8b, 9	1	NA	ES035
2	Manufacture of substance - solid	3	8	NA	1, 2, 3, 4, 8a, 8b, 9	1	NA	ES057
3	Industrial use	3	NA	NA	1, 2, 3, 4, 5, 7, 8a, 8b, 9, 10, 13, 15	2, 4, 6a, 6b, 7	NA	ES065
4	Professional use	22	NA	NA	1, 2, 3, 4, 5, 8a, 8b, 9, 10, 11, 13, 15	8a, 8b, 8d, 9a	NA	ES067
5	Consumer use	21	NA	20, 35, 39	NA	8a, 8b, 8d, 9a	NA	ES075

SAFETY DATA SHEET according to Regulation (EC) No. 1907/2006

Sodium hydroxide

Version 1.1

Print Date 30.01.2013

Revision Date 30.01.2013

1. Short title of Exposure Scenario 1: Manufacture of substance - liquid

Main User Groups	SU 3: Industrial uses: Uses of substances as such or in preparations at industrial sites
Sectors of end-use	SU8: Manufacture of bulk, large scale chemicals (including petroleum products)
Process categories	PROC1: Use in closed process, no likelihood of exposure PROC2: Use in closed, continuous process with occasional controlled exposure PROC3: Use in closed batch process (synthesis or formulation) PROC4: Use in batch and other process (synthesis) where opportunity for exposure arises PROC8a: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities PROC8b: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities PROC9: Transfer of substance or preparation into small containers (dedicated filling line, including weighing)
Environmental Release Categories	ERC1: Manufacture of substances

2.1 Contributing scenario controlling environmental exposure for: ERC1

Product characteristics	Concentration of the Substance in Mixture/Article	Concentration of substance in product : 0% - 50%
Other given operational conditions affecting environmental exposure	Continuous exposure	
Technical conditions and measures at process level (source) to prevent release Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil Organizational measures to prevent/limit release from the site	Application Area	Industrial use
	Water	Regular control of the pH value during introduction into open waters is required.,In general discharges should be carried out such that pH changes in receiving surface waters are minimised.,In general most aquatic organisms can tolerate pH values in the range of 6-9. This is also reflected in the description of standard OECD tests with aquatic organisms.,Risk management measures related to the environment aim to avoid discharging the substance into municipal wastewater or to surface water, in case such discharges are expected to cause significant pH changes.
Conditions and measures related to external treatment of waste for disposal	Disposal methods	Waste should be reused or discharged to the industrial wastewater and further neutralized if needed.

2.2 Contributing scenario controlling worker exposure for: PROC1, PROC2, PROC3, PROC4, PROC8a, PROC8b, PROC9

Product characteristics	Concentration of the	Concentration of substance in product : 0% - 50%
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Sodium hydroxide

Version 1.1

Print Date 30.01.2013

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	Substance in Mixture/Article	
	Physical Form (at time of use)	liquid
Frequency and duration of use	Frequency of use	200 days/year
	Frequency of use	8 hours/day
Technical conditions and measures to control dispersion from source towards the worker	Application Area	Industrial use
	Use closed systems or covering of open containers (e.g. screens) Transport over pipes, technical barrel filling/emptying of barrel with automatic systems (suction pumps etc.) Use of pliers, grip arms with long handles with manual use to avoid direct contact and exposure by splashes (no working over one's head)	
Organisational measures to prevent /limit releases, dispersion and exposure	Application Area	Industrial use
	Replacing, where appropriated, manual processes by automated and/or closed processes. This would avoid irritating mists, sprayings and subsequent potential splashes. Workers in the risky process/areas identified should be trained a) to avoid to work without respiratory protection and b) to understand the corrosive properties and, especially, the respiratory inhalation effects and c) to follow the safety procedures instructed by the employer. The employer has also to ascertain that the required PPE is available	
Conditions and measures related to personal protection, hygiene and health evaluation	Application Area	Industrial use
	In case of dust or aerosol formation: use respiratory protection with approved filter (P2) Wear chemically resistant gloves. material: butyl-rubber, PVC, polychloroprene with natural latex liner, material thickness: 0.5 mm, breakthrough time: >480 min material: nitrile-rubber, fluorinated rubber, material thickness: 0.35-0.4 mm, breakthrough time: > 480 min wear tightly fitting safety goggles, face-shield Wear suitable protective clothing, aprons, shield and suits If splashes are likely to occur: Rubber or plastic boots	

3. Exposure estimation and reference to its source

Environment

The aquatic effect and risk assessment only deals with the effect on organisms/ecosystems due to possible pH changes related to OH⁻ discharges, as the toxicity of the metal ion is expected to be insignificant compared to the (potential) pH effect. The high water solubility and very low vapour pressure indicates that the substance will be found predominantly in water. When the risk management measures related to the environment are implemented, there is no exposure to the activated sludge of a sewage treatment plant and there is no exposure to the receiving surface water. The sediment compartment is not considered, because it is not relevant for the substance. If emitted to the aquatic compartment, sorption to sediment particles will be negligible. Significant emissions to air are not expected due to the very low vapour pressure of the substance. If emitted to air as a water-based aerosol, the substance will be rapidly neutralised as a result of its reaction with CO₂ (or acids). Significant emissions to the terrestrial environment are not expected. The sludge application route is not relevant

SAFETY DATA SHEET according to Regulation (EC) No. 1907/2006

Sodium hydroxide

Version 1.1

Print Date 30.01.2013

Revision Date 30.01.2013

for the emission to agricultural soil, as no sorption of the substance to particulate matter will occur in STPs/WWTPs. If emitted to soil, sorption to soil particles will be negligible. Depending on the buffer capacity of the soil, OH⁻ will be neutralised in the soil pore water or the pH may increase. Bioaccumulation will not occur.

Workers

PROC1, PROC2, PROC3, PROC4, PROC8a, PROC8b, PROC9 Used ECETOC TRA model.

Contributing Scenario	Specific conditions	Exposure routes	Level of Exposure	RCR
PROC1, PROC2, PROC3, PROC4, PROC8a, PROC8b, PROC9	Modeled exposure data, very low vapour pressure, Without local exhaust ventilation, without respiratory protection	Inhalation worker exposure	0,17mg/m ³	0,17
PROC1, PROC2, PROC3, PROC4, PROC8a, PROC8b, PROC9	Measured exposure data, worst-case	worker inhalation, acute - local	0,33mg/m ³	0,33
PROC1, PROC2, PROC3, PROC4, PROC8a, PROC8b, PROC9	Measured exposure data, worst-case	Worker - inhalative, long-term - local	0,14mg/m ³	0,14

This substance is corrosive. For the handling of corrosive substances and formulations, immediate dermal contacts occur only occasionally and it is assumed that repeated daily dermal exposure can be neglected. Dermal exposure to the substance was not quantified. The substance is not expected to be systemically available in the body under normal handling and use conditions. Systemic effects of NaOH after dermal or inhalation exposure are not expected to occur.

4. Guidance to Downstream User to evaluate whether he works inside the boundaries set by the Exposure Scenario

The DU works inside the boundaries set by the ES if either the proposed risk management measures as described above are met or the downstream user can demonstrate on his own that his operational conditions and implemented risk management measures are adequate. This has to be done by showing that they limit the inhalation and dermal exposure to a level below the respective DNEL (given that the processes and activities in question are covered by the PROCs listed above) as given below
If measured data are not available, the DU may make use of an appropriate scaling tool such as ECETOC TRA. Important note: By demonstrating a safe use when comparing exposure estimates with the long-term DNEL, the acute DNEL is therefore also covered (according to R.14 guidance, acute exposure levels can be derived by multiplying long-term exposure estimates by a factor of 2).

Additional good practice advice beyond the REACH Chemical Safety Assessment

Local exhaust ventilation is not required but good practice.
General ventilation is good practice unless local exhaust ventilation

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1. Short title of Exposure Scenario 2: Manufacture of substance - solid

Main User Groups	SU 3: Industrial uses: Uses of substances as such or in preparations at industrial sites
Sectors of end-use	SU8: Manufacture of bulk, large scale chemicals (including petroleum products)
Process categories	PROC1: Use in closed process, no likelihood of exposure PROC2: Use in closed, continuous process with occasional controlled exposure PROC3: Use in closed batch process (synthesis or formulation) PROC4: Use in batch and other process (synthesis) where opportunity for exposure arises PROC8a: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities PROC8b: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities PROC9: Transfer of substance or preparation into small containers (dedicated filling line, including weighing)
Environmental Release Categories	ERC1: Manufacture of substances

2.1 Contributing scenario controlling environmental exposure for: ERC1

Product characteristics	Concentration of the Substance in Mixture/Article	Covers percentage substance in the product up to 100 % (unless stated differently).
Other given operational conditions affecting environmental exposure	Continuous exposure	
Technical conditions and measures at process level (source) to prevent release Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil Organizational measures to prevent/limit release from the site	Application Area	Industrial use
	Water	Regular control of the pH value during introduction into open waters is required.,In general discharges should be carried out such that pH changes in receiving surface waters are minimised.,In general most aquatic organisms can tolerate pH values in the range of 6-9. This is also reflected in the description of standard OECD tests with aquatic organisms.,Risk management measures related to the environment aim to avoid discharging the substance into municipal wastewater or to surface water, in case such discharges are expected to cause significant pH changes.

2.2 Contributing scenario controlling worker exposure for: PROC1, PROC2, PROC3, PROC4, PROC8a, PROC8b, PROC9

Product characteristics	Concentration of the Substance in Mixture/Article	Covers percentage substance in the product up to 100 % (unless stated differently).
	Physical Form (at time of	solid

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	use)	
Frequency and duration of use	Frequency of use	200 days/year
	Frequency of use	8 hours/day
Technical conditions and measures to control dispersion from source towards the worker	Application Area	Industrial use
	Use closed systems or covering of open containers (e.g. screens) Transport over pipes, technical barrel filling/emptying of barrel with automatic systems (suction pumps etc.) Use of pliers, grip arms with long handles with manual use to avoid direct contact and exposure by splashes (no working over one's head)	
Organisational measures to prevent /limit releases, dispersion and exposure	Application Area	Industrial use
	Replacing, where appropriated, manual processes by automated and/or closed processes. This would avoid irritating mists, sprayings and subsequent potential splashes. Workers in the risky process/areas identified should be trained a) to avoid to work without respiratory protection and b) to understand the corrosive properties and, especially, the respiratory inhalation effects and c) to follow the safety procedures instructed by the employer. The employer has also to ascertain that the required PPE is available	
Conditions and measures related to personal protection, hygiene and health evaluation	Application Area	Industrial use
	In case of dust or aerosol formation: use respiratory protection with approved filter (P2) Wear chemically resistant gloves. material: butyl-rubber, PVC, polychloroprene with natural latex liner, material thickness: 0.5 mm, breakthrough time: >480 min material: nitrile-rubber, fluorinated rubber, material thickness: 0.35-0.4 mm, breakthrough time: > 480 min wear tightly fitting safety goggles, face-shield Wear suitable protective clothing, aprons, shield and suits If splashes are likely to occur: Rubber or plastic boots	

3. Exposure estimation and reference to its source

Environment

The aquatic effect and risk assessment only deals with the effect on organisms/ecosystems due to possible pH changes related to OH⁻ discharges, as the toxicity of the metal ion is expected to be insignificant compared to the (potential) pH effect. The high water solubility and very low vapour pressure indicates that the substance will be found predominantly in water. When the risk management measures related to the environment are implemented, there is no exposure to the activated sludge of a sewage treatment plant and there is no exposure to the receiving surface water. The sediment compartment is not considered, because it is not relevant for the substance. If emitted to the aquatic compartment, sorption to sediment particles will be negligible. Significant emissions to air are not expected due to the very low vapour pressure of the substance. If emitted to air as a water-based aerosol, the substance will be rapidly neutralised as a result of its reaction with CO₂ (or acids). Significant emissions to the terrestrial environment are not expected. The sludge application route is not relevant for the emission to agricultural soil, as no sorption of the substance to particulate matter will occur in STPs/WWTPs. If emitted to soil, sorption to soil particles will be negligible. Depending on the buffer capacity of the soil, OH⁻ will be neutralised in the soil pore water or the pH may increase. Bioaccumulation will not occur.

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Workers

PROC1, PROC2, PROC3, PROC4, PROC8a, PROC9 Used ECETOC TRA model.

Contributing Scenario	Specific conditions	Exposure routes	Level of Exposure	RCR
PROC1, PROC2	Modeled exposure data, Low dustiness, no LEV, no respiratory protection (RPE)	Inhalation worker exposure	0,01mg/m ³	0,01
PROC3, PROC9	Modeled exposure data, Low dustiness, no LEV, no respiratory protection (RPE)	Inhalation worker exposure	0,1mg/m ³	0,1
PROC4, PROC8a	Modeled exposure data, Low dustiness, no LEV, no respiratory protection (RPE)	Inhalation worker exposure	0,5mg/m ³	0,5
PROC9	Measured exposure data, worst-case	worker inhalation, acute - local	0,26mg/m ³	0,26

This substance is corrosive. For the handling of corrosive substances and formulations, immediate dermal contacts occur only occasionally and it is assumed that repeated daily dermal exposure can be neglected. Dermal exposure to the substance was not quantified. The substance is not expected to be systemically available in the body under normal handling and use conditions. Systemic effects of NaOH after dermal or inhalation exposure are not expected to occur.

4. Guidance to Downstream User to evaluate whether he works inside the boundaries set by the Exposure Scenario

The DU works inside the boundaries set by the ES if either the proposed risk management measures as described above are met or the downstream user can demonstrate on his own that his operational conditions and implemented risk management measures are adequate. This has to be done by showing that they limit the inhalation and dermal exposure to a level below the respective DNEL (given that the processes and activities in question are covered by the PROCs listed above) as given below
If measured data are not available, the DU may make use of an appropriate scaling tool such as ECETOC TRA. Important note: By demonstrating a safe use when comparing exposure estimates with the long-term DNEL, the acute DNEL is therefore also covered (according to R.14 guidance, acute exposure levels can be derived by multiplying long-term exposure estimates by a factor of 2).

Additional good practice advice beyond the REACH Chemical Safety Assessment

Local exhaust ventilation is not required but good practice.
General ventilation is good practice unless local exhaust ventilation

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1. Short title of Exposure Scenario 3: Industrial use

Main User Groups	SU 3: Industrial uses: Uses of substances as such or in preparations at industrial sites
Process categories	<p>PROC1: Use in closed process, no likelihood of exposure</p> <p>PROC2: Use in closed, continuous process with occasional controlled exposure</p> <p>PROC3: Use in closed batch process (synthesis or formulation)</p> <p>PROC4: Use in batch and other process (synthesis) where opportunity for exposure arises</p> <p>PROC5: Mixing or blending in batch processes for formulation of preparations and articles (multistage and/or significant contact)</p> <p>PROC7: Industrial spraying</p> <p>PROC8a: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities</p> <p>PROC8b: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities</p> <p>PROC9: Transfer of substance or preparation into small containers (dedicated filling line, including weighing)</p> <p>PROC10: Roller application or brushing</p> <p>PROC13: Treatment of articles by dipping and pouring</p> <p>PROC15: Use as laboratory reagent</p>
Environmental Release Categories	<p>ERC2: Formulation of preparations</p> <p>ERC4: Industrial use of processing aids in processes and products, not becoming part of articles</p> <p>ERC6a: Industrial use resulting in manufacture of another substance (use of intermediates)</p> <p>ERC6b: Industrial use of reactive processing aids</p> <p>ERC7: Industrial use of substances in closed systems</p>

2.1 Contributing scenario controlling environmental exposure for: ERC2, ERC4, ERC6a, ERC6b, ERC7

Product characteristics	Concentration of the Substance in Mixture/Article	Covers percentage substance in the product up to 100 % (unless stated differently).
Other given operational conditions affecting environmental exposure	Continuous exposure	
Technical conditions and measures at process level (source) to prevent release Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil Organizational measures to prevent/limit release from the site	Application Area	Industrial use
	Water	Regular control of the pH value during introduction into open waters is required.,In general discharges should be carried out such that pH changes in receiving surface waters are minimised.,In general most aquatic organisms can tolerate pH values in the range of 6-9. This is also reflected in the description of standard OECD tests with aquatic organisms.,Risk management measures related to the environment aim to avoid discharging the substance into municipal wastewater or to

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		surface water, in case such discharges are expected to cause significant pH changes.
Conditions and measures related to external treatment of waste for disposal	Disposal methods	Waste should be reused or discharged to the industrial wastewater and further neutralized if needed.

2.2 Contributing scenario controlling worker exposure for: PROC1, PROC2, PROC3, PROC4, PROC5, PROC7, PROC8a, PROC8b, PROC9, PROC10, PROC13, PROC15

Product characteristics	Concentration of the Substance in Mixture/Article	Covers percentage substance in the product up to 100 % (unless stated differently).
	Physical Form (at time of use)	liquid
	Physical Form (at time of use)	Solid, low dustiness
Frequency and duration of use	Frequency of use	8 hours/day
	Frequency of use	200 days/year
Technical conditions and measures to control dispersion from source towards the worker	Application Area	Industrial use
	Use closed systems or covering of open containers (e.g. screens) Transport over pipes, technical barrel filling/emptying of barrel with automatic systems (suction pumps etc.) Use of pliers, grip arms with long handles with manual use to avoid direct contact and exposure by splashes (no working over one's head)	
Organisational measures to prevent /limit releases, dispersion and exposure	Application Area	Industrial use
	Replacing, where appropriated, manual processes by automated and/or closed processes. This would avoid irritating mists, sprayings and subsequent potential splashes. Workers in the risky process/areas identified should be trained a) to avoid to work without respiratory protection and b) to understand the corrosive properties and, especially, the respiratory inhalation effects and c) to follow the safety procedures instructed by the employer. The employer has also to ascertain that the required PPE is available	
Conditions and measures related to personal protection, hygiene and health evaluation	Application Area	Industrial use
	In case of dust or aerosol formation: use respiratory protection with approved filter (P2) Wear chemically resistant gloves. material: butyl-rubber, PVC, polychloroprene with natural latex liner, material thickness: 0.5 mm, breakthrough time: >480 min material: nitrile-rubber, fluorinated rubber, material thickness: 0.35-0.4 mm, breakthrough time: > 480 min If splashes are likely to occur: wear tightly fitting safety goggles, face-shield Wear suitable protective clothing, aprons, shield and suits Rubber or plastic boots	

3. Exposure estimation and reference to its source

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Environment

The aquatic effect and risk assessment only deals with the effect on organisms/ecosystems due to possible pH changes related to OH⁻ discharges, as the toxicity of the metal ion is expected to be insignificant compared to the (potential) pH effect. The high water solubility and very low vapour pressure indicates that the substance will be found predominantly in water. When the risk management measures related to the environment are implemented, there is no exposure to the activated sludge of a sewage treatment plant and there is no exposure to the receiving surface water. The sediment compartment is not considered, because it is not relevant for the substance. If emitted to the aquatic compartment, sorption to sediment particles will be negligible. Significant emissions to air are not expected due to the very low vapour pressure of the substance. If emitted to air as a water-based aerosol, the substance will be rapidly neutralised as a result of its reaction with CO₂ (or acids). Significant emissions to the terrestrial environment are not expected. The sludge application route is not relevant for the emission to agricultural soil, as no sorption of the substance to particulate matter will occur in STPs/WWTPs. If emitted to soil, sorption to soil particles will be negligible. Depending on the buffer capacity of the soil, OH⁻ will be neutralised in the soil pore water or the pH may increase. Bioaccumulation will not occur.

Workers

Used ECETOC TRA model.

Contributing Scenario	Specific conditions	Exposure routes	Level of Exposure	RCR
PROC1, PROC2, PROC3, PROC4, PROC5, PROC7, PROC8a, PROC8b, PROC9, PROC10, PROC13, PROC14, PROC15, PROC19, PROC23, PROC24	liquid, no LEV, no respiratory protection (RPE)	worker inhalation, acute - local	0,17mg/m ³	---
PROC1, PROC2	solid, no LEV, no respiratory protection (RPE)	worker inhalation, acute - local	0,01mg/m ³	---
PROC3, PROC15	solid, no LEV, no respiratory protection (RPE)	worker inhalation, acute - local	0,1mg/m ³	---
PROC4, PROC5, PROC14	solid, no respiratory protection (RPE)	worker inhalation, acute - local	0,2mg/m ³	---
PROC8a, PROC8b, PROC9, PROC10, PROC13,	solid, no LEV, no respiratory protection (RPE)	worker inhalation, acute - local	0,5mg/m ³	---

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PROC19				
PROC23	solid, with RPE (90%)	worker inhalation, acute - local	0,4mg/m ³	---
PROC24	solid, with RPE (90%)	worker inhalation, acute - local	0,5mg/m ³	---

This substance is corrosive. For the handling of corrosive substances and formulations, immediate dermal contacts occur only occasionally and it is assumed that repeated daily dermal exposure can be neglected. Dermal exposure to the substance was not quantified. The substance is not expected to be systemically available in the body under normal handling and use conditions. Systemic effects of NaOH after dermal or inhalation exposure are not expected to occur. Based on workplace measurements and following the proposed risk management measures controlling worker and professional exposure, the inhalation exposure is below the DNEL.

4. Guidance to Downstream User to evaluate whether he works inside the boundaries set by the Exposure Scenario

The DU works inside the boundaries set by the ES if either the proposed risk management measures as described above are met or the downstream user can demonstrate on his own that his operational conditions and implemented risk management measures are adequate. This has to be done by showing that they limit the inhalation and dermal exposure to a level below the respective DNEL (given that the processes and activities in question are covered by the PROCs listed above) as given below
If measured data are not available, the DU may make use of an appropriate scaling tool such as ECETOC TRA. Important note: By demonstrating a safe use when comparing exposure estimates with the long-term DNEL, the acute DNEL is therefore also covered (according to R.14 guidance, acute exposure levels can be derived by multiplying long-term exposure estimates by a factor of 2).

Additional good practice advice beyond the REACH Chemical Safety Assessment

Local exhaust ventilation is not required but good practice.
General ventilation is good practice unless local exhaust ventilation

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1. Short title of Exposure Scenario 4: Professional use

Main User Groups	SU 22: Professional uses: Public domain (administration, education, entertainment, services, craftsmen)
Process categories	<p>PROC1: Use in closed process, no likelihood of exposure</p> <p>PROC2: Use in closed, continuous process with occasional controlled exposure</p> <p>PROC3: Use in closed batch process (synthesis or formulation)</p> <p>PROC4: Use in batch and other process (synthesis) where opportunity for exposure arises</p> <p>PROC5: Mixing or blending in batch processes for formulation of preparations and articles (multistage and/or significant contact)</p> <p>PROC8a: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities</p> <p>PROC8b: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities</p> <p>PROC9: Transfer of substance or preparation into small containers (dedicated filling line, including weighing)</p> <p>PROC10: Roller application or brushing</p> <p>PROC11: Non industrial spraying</p> <p>PROC13: Treatment of articles by dipping and pouring</p> <p>PROC15: Use as laboratory reagent</p>
Environmental Release Categories	<p>ERC8a: Wide dispersive indoor use of processing aids in open systems</p> <p>ERC8b: Wide dispersive indoor use of reactive substances in open systems</p> <p>ERC8d: Wide dispersive outdoor use of processing aids in open systems</p> <p>ERC9a: Wide dispersive indoor use of substances in closed systems</p>

2.1 Contributing scenario controlling environmental exposure for: ERC8a, ERC8b, ERC8d, ERC9a

Product characteristics	Concentration of the Substance in Mixture/Article	Covers percentage substance in the product up to 100 % (unless stated differently).
Other given operational conditions affecting environmental exposure	Continuous exposure	
Technical conditions and measures at process level (source) to prevent release Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil Organizational measures to prevent/limit release from the site	Application Area	Professional use
	Water	Regular control of the pH value during introduction into open waters is required.,In general discharges should be carried out such that pH changes in receiving surface waters are minimised.,In general most aquatic organisms can tolerate pH values in the range of 6-9. This is also reflected in the description of standard OECD tests with aquatic organisms.,Risk management measures related to the environment aim to avoid discharging the substance into municipal wastewater or to surface water, in case such discharges are expected to cause significant pH changes.
Conditions and measures related	Disposal methods	Waste should be reused or discharged to the

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to external treatment of waste for disposal

industrial wastewater and further neutralized if needed.

2.2 Contributing scenario controlling worker exposure for: PROC1, PROC2, PROC3, PROC4, PROC5, PROC8a, PROC8b, PROC9, PROC10, PROC11, PROC13, PROC15

Product characteristics	Concentration of the Substance in Mixture/Article	Covers percentage substance in the product up to 100 % (unless stated differently).
	Physical Form (at time of use)	liquid
	Physical Form (at time of use)	Solid, low dustiness
Frequency and duration of use	Frequency of use	8 hours/day
	Frequency of use	200 days/year
Technical conditions and measures to control dispersion from source towards the worker	Application Area	Professional use
	Use of pliers, grip arms with long handles with manual use to avoid direct contact and exposure by splashes (no working over one's head) Where possible use of specific dispensers and pumps specifically designed to prevent splashes/spills/exposure to occur.	
Organisational measures to prevent /limit releases, dispersion and exposure	Application Area	Professional use
	Replacing, where appropriated, manual processes by automated and/or closed processes. This would avoid irritating mists, sprayings and subsequent potential splashes. Workers in the risky process/areas identified should be trained a) to avoid to work without respiratory protection and b) to understand the corrosive properties and, especially, the respiratory inhalation effects and c) to follow the safety procedures instructed by the employer. The employer has also to ascertain that the required PPE is available	
Conditions and measures related to personal protection, hygiene and health evaluation	Application Area	Professional use
	In case of dust or aerosol formation: use respiratory protection with approved filter (P2) Wear chemically resistant gloves. material: butyl-rubber, PVC, polychloroprene with natural latex liner, material thickness: 0.5 mm, breakthrough time: >480 min material: nitrile-rubber, fluorinated rubber, material thickness: 0.35-0.4 mm, breakthrough time: > 480 min If splashes are likely to occur: wear tightly fitting safety goggles, face-shield Wear suitable protective clothing, aprons, shield and suits Rubber or plastic boots	

3. Exposure estimation and reference to its source

Environment

The aquatic effect and risk assessment only deals with the effect on organisms/ecosystems due to possible pH changes related to OH⁻ discharges, as the toxicity of the metal ion is expected to be insignificant compared to the (potential) pH effect. The high water solubility and very low vapour pressure indicates that the substance will be

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found predominantly in water. When the risk management measures related to the environment are implemented, there is no exposure to the activated sludge of a sewage treatment plant and there is no exposure to the receiving surface water. The sediment compartment is not considered, because it is not relevant for the substance. If emitted to the aquatic compartment, sorption to sediment particles will be negligible. Significant emissions to air are not expected due to the very low vapour pressure of the substance. If emitted to air as a water-based aerosol, the substance will be rapidly neutralised as a result of its reaction with CO₂ (or acids). Significant emissions to the terrestrial environment are not expected. The sludge application route is not relevant for the emission to agricultural soil, as no sorption of the substance to particulate matter will occur in STPs/WWTPs. If emitted to soil, sorption to soil particles will be negligible. Depending on the buffer capacity of the soil, OH⁻ will be neutralised in the soil pore water or the pH may increase. Bioaccumulation will not occur.

Workers

Used ECETOC TRA model.

Contributing Scenario	Specific conditions	Exposure routes	Level of Exposure	RCR
PROC1, PROC2, PROC3, PROC4, PROC5, PROC8a, PROC8b, PROC9, PROC10, PROC11, PROC13, PROC14, PROC15, PROC19, PROC23, PROC24	liquid, no LEV, no respiratory protection (RPE)	worker inhalation, acute - local	0,17mg/m ³	---
PROC1, PROC2	solid, no LEV, no respiratory protection (RPE)	worker inhalation, acute - local	0,01mg/m ³	---
PROC3, PROC15	solid, no LEV, no respiratory protection (RPE)	worker inhalation, acute - local	0,1mg/m ³	---
PROC4, PROC5, PROC11, PROC14	solid, no respiratory protection (RPE)	worker inhalation, acute - local	0,2mg/m ³	---
PROC8a, PROC8b, PROC9, PROC10, PROC13, PROC19	solid, no LEV, no respiratory protection (RPE)	worker inhalation, acute - local	0,5mg/m ³	---
PROC23	solid, with RPE (90%)	worker inhalation, acute - local	0,4mg/m ³	---
PROC24	solid, with RPE (90%)	worker inhalation, acute -	0,5mg/m ³	---

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		local	
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This substance is corrosive. For the handling of corrosive substances and formulations, immediate dermal contacts occur only occasionally and it is assumed that repeated daily dermal exposure can be neglected. Dermal exposure to the substance was not quantified. The substance is not expected to be systemically available in the body under normal handling and use conditions. Systemic effects of NaOH after dermal or inhalation exposure are not expected to occur. Based on workplace measurements and following the proposed risk management measures controlling worker and professional exposure, the inhalation exposure is below the DNEL.

4. Guidance to Downstream User to evaluate whether he works inside the boundaries set by the Exposure Scenario

The DU works inside the boundaries set by the ES if either the proposed risk management measures as described above are met or the downstream user can demonstrate on his own that his operational conditions and implemented risk management measures are adequate. This has to be done by showing that they limit the inhalation and dermal exposure to a level below the respective DNEL (given that the processes and activities in question are covered by the PROCs listed above) as given below
If measured data are not available, the DU may make use of an appropriate scaling tool such as ECETOC TRA. Important note: By demonstrating a safe use when comparing exposure estimates with the long-term DNEL, the acute DNEL is therefore also covered (according to R.14 guidance, acute exposure levels can be derived by multiplying long-term exposure estimates by a factor of 2).

Additional good practice advice beyond the REACH Chemical Safety Assessment

Local exhaust ventilation is not required but good practice.
General ventilation is good practice unless local exhaust ventilation

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1. Short title of Exposure Scenario 5: Consumer use

Main User Groups	SU 21: Consumer uses: Private households (= general public = consumers)
Chemical product category	PC20: Products such as ph-regulators, flocculants, precipitants, neutralization agents PC35: Washing and cleaning products (including solvent based products) PC39: Cosmetics, personal care products
Environmental Release Categories	ERC8a: Wide dispersive indoor use of processing aids in open systems ERC8b: Wide dispersive indoor use of reactive substances in open systems ERC8d: Wide dispersive outdoor use of processing aids in open systems ERC9a: Wide dispersive indoor use of substances in closed systems

2.1 Contributing scenario controlling environmental exposure for: ERC8a, ERC8b, ERC8d, ERC9a

Product characteristics	Concentration of the Substance in Mixture/Article	Covers percentage substance in the product up to 100 % (unless stated differently).
Technical conditions and measures at process level (source) to prevent release Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil Organizational measures to prevent/limit release from the site	There are no specific risk management measures related to environment.	
Conditions and measures related to external treatment of waste for disposal	Disposal methods	This material and its container must be disposed of in a safe way (e.g. by returning to a public recycling facility)., If container is empty, trash as regular municipal waste., Batteries should be recycled as much as possible (e.g. by returning to a public recycling facility)., Recovery of the substance from alkaline batteries includes emptying the electrolyte, collection and neutralization.

2.2 Contributing scenario controlling consumer exposure for: PC20, PC35, PC39

Product characteristics	Concentration of the Substance in Mixture/Article	Covers percentage substance in the product up to 100 % (unless stated differently).
	Physical Form (at time of use)	liquid
	Physical Form (at time of use)	Solid, low dustiness
Conditions and measures related to protection of consumer (e.g. behavioural advice, personal protection and hygiene)	Consumer Measures	It is required to use resistant labelling-package to avoid its auto-damage and loss of the label integrity, under normal use and storage of the product. The lack of quality of the package

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		provokes the physical loss of information on hazards and use instructions.
	Consumer Measures	In case of dust or aerosol formation: use respiratory protection with approved filter (P2)

3. Exposure estimation and reference to its source

Environment

Consumer uses relate to already diluted products which will further be neutralized quickly in the sewer, well before reaching a WWTP or surface water.

Consumers

ConsExpo and SrayExpo

Contributing Scenario	Specific conditions	Exposure routes	Level of Exposure	RCR
PC20, PC35, PC39	Assessed only for the most critical use, (use of the substance in a spray oven cleaner)	consumer inhalation, acute - local	0,3 - 1,6mg/m ³	< 1

The calculated short-term exposure is slightly higher than the long term DNEL for inhalation, but smaller than the short term occupational exposure limit. The substance will be rapidly neutralised as a result of its reaction with CO₂ (or other acids) Consumer exposure to the substance in batteries is zero because batteries are sealed articles with a long service life maintenance.

4. Guidance to Downstream User to evaluate whether he works inside the boundaries set by the Exposure Scenario

The DU works inside the boundaries set by the ES if either the proposed risk management measures as described above are met or the downstream user can demonstrate on his own that his operational conditions and implemented risk management measures are adequate. This has to be done by showing that they limit the inhalation and dermal exposure to a level below the respective DNEL (given that the processes and activities in question are covered by the PCs listed above) as given below

If measured data are not available, the DU may make use of an appropriate scaling tool such as ConsEXpo software.

Important note: By demonstrating a safe use when comparing exposure estimates with the long-term DNEL, the acute DNEL is therefore also covered (according to R.14 guidance, acute exposure levels can be derived by multiplying long-term exposure estimates by a factor of 2).

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name	BRENNTAG N.V.	BRENNTAG Nederland B.V.
address	Nijverheidslaan 38 8540 Deerlijk	Donker Duyvisweg 44 3316 BM Dordrecht
country	Belgium	The Netherlands
phone number	+32 (0)56 77 69 44	+31 (0)78 65 44 944
fax number	+32 (0)56 77 57 11	+31 (0)78 65 44 919
website	www.brenntag.be	www.brenntag.nl
e-mail	info@brenntag.be	info@brenntag.nl
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VAT number	BE0405317567	NL001375945B01
recall procedure available	Yes	
emergency number (24/365)	+32 (0)56 77 69 44	+31 (0)78 6544 944
QUALITY SYSTEMS		
ISO 9001	Yes	Yes
ISO 14001	Yes	Yes
ISO 22000	Yes	Yes
FSSC 22000	Yes	Yes
GMP+ -feed	Yes	Yes
OHSAS18001	-	Yes
ESAD	Yes	Yes
other	-	AEO



Safety Data Sheet SPECTRADET 541

SPECTRUM SURFACTANTS
6531 PARK OF COMMERCE BLVD.
SUITE 170
BOCA RATON, FL 33487

Emergency Telephone #
888-803-8270
Chemtrec 800-424-9300

SECTION I – PRODUCT INFORMATION

Product Name: SPECTRADET 541
Description: Detergent/chelating polymer
Hazard Rating: Health: 2 Fire: 1 Reactivity: 0

Direct Phone: 561-995-0070

THE CHEMTREC NUMBER IS TO BE CALLED ONLY IN THE EVENT OF CHEMICAL EMERGENCIES INVOLVING A SPILL, LEAK, FIRE, EXPOSURE OR ACCIDENT INVOLVING CHEMICALS.

SECTION 2 – COMPOSITION / INFORMATION ON INGREDIENTS

- Chemical characterization: MIXTURES
- Description: Mixture of substances listed below with nonhazardous additions

Dangerous Component:		
Nonionic Surfactant	H301; H319	2.5 – 10%
Acrylic polymer	H315; H319	2.5 – 10%

SECTION 3 – HAZARDS IDENTIFICATION

- Classification of the substance or mixture:



GHS07

H319 Causes eye irritation

H303 May be harmful if swallowed

- Classification according to Directive 67/548/EEC or Directive 1999/45/EC



Harmful if swallowed



Irritant to eyes

- Information concerning particular hazards for human and environments:

The product has to be labeled due to the calculation procedure of international guidelines.

- Classification system:

The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.

- **Label elements**

- **GHS label elements:** The product is classified and labeled according to the globally Harmonized System (GHS).

- **Hazard pictograms:** GHS07

- **Signal Word:** Warning

- **Hazard statements:** May be harmful if swallowed

Causes serious eye irritation.

- **Precautionary statements**

Wear protective gloves/protective clothing/eye protection/face protection.

Wash thoroughly after handling.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Call a POISON CENTER or doctor/physician if you feel unwell. If eye irritation persists: Get medical advice/attention.

- **Classification system:**

- **NFPA ratings (scale 0 - 4)**



- **HMIS-ratings (scale 0 - 4)**



SECTION 4 – FIRST AID MEASURES

- **General Information:**

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

- **After Inhalation:**

Get victim to fresh air. Seek medical attention.

- **After Skin Contact:**

Wash thoroughly with soap and water for fifteen minutes. If skin irritation occurs, seek medical attention.

- **After Eye Contact:**

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

Call a doctor immediately.

Remove contact lenses, if present.

Hold eyelids apart and flush with water for at least 15 minutes.

- **After Swallowing:**

Immediately call a doctor.

SECTION 5 – FIREFIGHTING MEASURES

- **Suitable extinguishing agents:**

Use fire fighting measures that suit the environment.

- **Special hazards arising from the substance or mixture:**

No further relevant information available.

- ***Protective equipment:***

Firefighters should wear NIOSH/MSHA approved self-contained breathing apparatus and full protective clothing.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

- ***Personal precautions, protective equipment, and emergency procedures:***

Wear appropriate personal protective equipment.

- ***Environmental precautions:***

Do not allow to enter sewers, surface, or ground water.

Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose of contaminated material as waste according to item 13.

Ensure adequate ventilation.

SECTION 7 – HANDLING AND STORAGE

- ***Precautions for safe handling:***

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols or mists.

- ***Information about protection against explosions and fires:***

No special measure required.

- ***Requirements to be met by storerooms and receptacles:***

No special requirements.

- ***Information about storage in one common storage facility:***

Not required.

- ***Further information about storage conditions:***

Keep receptacle tightly sealed.

- ***Specific end users:***

No further relevant information available.

SECTION 8 – EXPOSURE CONTROLS/PERSONAL PROTECTION

- ***Additional information about design of technical systems:***

No further data.

- ***Components with limited values that require monitoring at the workplace:***

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

- ***Additional information:***

The lists that were valid during the creation were used as basis.

- ***General protective and hygienic measures:***

Keep away from food, beverages, and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Avoid contact with eyes.

Avoid contact with skin.

- **Breathing equipment:**

In case of brief exposure, mist/aerosol/dust generation, or low pollution, use respiratory filter device. In case of intensive exposure, use respiratory protective device that is independent of circulating air.

- **Protection of hands:**

The glove material has to be impermeable and resistant to the product.

Due to missing tests, no recommendation to the glove material can be given for the product.

Selection of the glove material should be based on consideration of the penetration times, rates of diffusion, and degradation.

- **Material of gloves:**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer. As the product is a preparation of several substances, the resistance of the glove material cannot be calculated in advance and has must be checked prior to the application.

- **Penetration time of glove material:**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

- **Eye protection:**

Tightly sealed goggles.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

GENERAL INFORMATION:

Form:	Fluid
Color:	Clear – slightly yellow
Odor:	Characteristic
Odor threshold:	Not determined.
pH-value at 20°C (68°F)	4
Melting point/Melting range:	Not determined
Boiling point/Boiling range:	> 100°C (212°F)
Flash point:	> 100°C (212°F)
Flammability (solid, gaseous):	Not applicable
Decomposition temperature:	Not determined
Auto ignition point:	Product is not self-igniting
Danger of explosion:	Product does not present explosion hazard
Vapor pressure at 20°C (68°F):	23 hPa (17 mm Hg)
Density at 20°C (68°F):	8.929 lbs/gal
Solubility in/miscibility with water:	Fully miscible
Segregation coefficient (n-octanol/water):	Not determined
Dynamic viscosity:	Not determined
Kinematic viscosity at 20°C (68°F):	300 s (DIN 53211/4)

SECTION 10 – STABILITY AND REACTIVITY

- **Thermal decomposition/conditions to be avoided:** No decomposition if used to specification
- **Incompatible materials:** No further relevant information available

- **Hazardous decomposition products:** No dangerous decomposition products known.

SECTION 11 – TOXICOLOGICAL INFORMATION

ACUTE TOXICITY:

- **Primary irritant effect –**
 - on skin:** not tested
 - on eyes:** irritation effect
- **Sensitization:** no sensitizing effects known
- **Additional toxicological information:** the product shows the following dangers according to internally approved calculation methods for preparations:
HARMFUL
IRRITANT

SECTION 12 – ECOLOGICAL INFORMATION

- **Aquatic toxicity:** No further relevant information available
- **Persistence and degradability:** No further relevant information available
- **Behavior in environmental systems:**
 - **Bioaccumulative potential:** No further relevant information available
- **Additional ecological information:**
 - **BOD5:** 8460 mgO₂/g
 - **COD:** 375000 mgO₂/g
- **General notes:** Water hazard class 1 (self-assessment): slightly hazardous for water
Do not allow undiluted product or large quantities of it to reach ground water, watercourse, or sewage system.

SECTION 13 – DISPOSAL CONSIDERATIONS

- **Waste treatment methods:**
 - **Recommendations:** Must not be disposed of together with household garbage. Do not allow product to reach waterways or storm sewers. Disposal must be made in accordance with local, state, and federal regulations.
- **Uncleaned packagings:**
 - **Recommendation:** Disposal must be made in accordance with local, state, and federal regulations
 - **Recommended cleansing agent:** Water, if necessary with cleansing agents

SECTION 14 – TRANSPORT INFORMATION

• UN-Number	
DOT, ADR, AND, IMDG, IATA:	VOID
• UN proper shipping name	
DOT, ADR, AND, IMDG, IATA:	VOID
• Transport hazard class(es)	
DOT, ADR, AND, IMDG, IATA:	VOID
• Packing group	
DOT, ADR, AND, IMDG, IATA:	VOID
• Environmental hazards	
Marine pollutant:	NO
• Special precautions for user:	N/A
• Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:	N/A
• UN “Model Regulation”:	-

SECTION 15 – REGULATORY INFORMATION

SARA:

Section 355 (Extremely Hazardous Substances):	No ingredients listed
Section 313 (Toxic Chemical Listings):	No ingredients listed
TSCA (Toxic Substances Control Act):	All components of this material are on the US TSCA Inventory or are exempt

Carcinogen categories:

EPA (Environmental Protection Agency):	No ingredients listed
IARC (International Agency for Research on Cancer):	No ingredients listed
NTP (National Toxicology Program):	No ingredients listed
TLV (Threshold Limit Value):	No ingredients listed
NIOSH-Ca (National Institute for Occupational Safety):	No ingredients listed
OSHA-Ca (Occupational Safety & Health Administration):	No ingredients listed

GHS label elements: The product is classified and labeled according to the Globally Harmonized System.

Hazard pictogram: GHS07

Signal word: WARNING

Hazard statements:

May be harmful if swallowed

Causes serious eye irritation

Precautionary statements:

Wear protective gloves/protective clothing/eye protection/face protection

Wash thoroughly after handling

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

Call a POISON CENTER or doctor/physician if you feel unwell.

If eye irritation persists, get medical advice/attention.

SECTION 16 – OTHER INFORMATION

THIS INFORMATION IS BASED ON OUR PRESENT KNOWLEDGE. HOWEVER, THIS SHALL NOT CONSTITUTE A GAURANTEE FOR ANY SPECIFIC PRODUCT FEATURE AND SHALL NOT ESTABLISH A LEGALLY VALID CONTRACTUAL RELATIONSHIP.

1. IDENTIFICATION

PRODUCT NAME: SUPER BLUE SUDS**RECOMMENDED USE:** MANUAL DISHWASH**RESTRICTIONS ON USE:** DO NOT USE IN A MANNER INCONSISTENT WITH THE LABEL.**LABEL BRAND:** U S CHEMICAL**SDS 100346****CODE 064086, 064087****U S CHEMICAL**

316 HART STREET

WATERTOWN, WI 53094 USA

MEDICAL EMERGENCY: 1-866-923-4913 USA

SPILL EMERGENCY: 1-800-424-9300 USA

PRODUCT INFORMATION: 1-800-558-9566 USA (8 A.M. TO 5 P.M. CST MONDAY TO FRIDAY)

INTERNET ADDRESS: WWW.USCHEMICAL.COM

2. HAZARD(S) IDENTIFICATION

CLASSIFICATION: NOT OSHA HAZARDOUS**LABEL ELEMENTS****SIGNAL WORD:** NONE**PICTOGRAMS:** NONE**HAZARD STATEMENTS:** NONE**PRECAUTIONARY STATEMENTS:** NONE**FIRST AID:** NONE REQUIRED BY OSHA.**SUPPLEMENTAL INFORMATION**

May be mildly irritating to eyes. In case of contact, flush with plenty of water. If irritation occurs and persists, get medical attention.

EMERGENCY TELEPHONE: 1-866-923-4913**KEEP OUT OF REACH OF CHILDREN. FOR COMMERCIAL AND INDUSTRIAL USE ONLY.****HAZARDS NOT OTHERWISE CLASSIFIED:** Not applicable.

3. COMPOSITION / INFORMATION ON INGREDIENTS

HAZARDOUS INGREDIENT(S)	CAS #	WEIGHT %
NONE	N.AP.	N.AP.
STATE RIGHT TO KNOW: SEE SECTION 15 FOR STATE RTK CHEMICAL NAMES IN MIXTURE.		

4. FIRST-AID MEASURES

Page 2 of 4

IF IN EYES: FLUSH WITH PLENTY OF WATER. IF IRRITATION OCCURS AND PERSISTS, GET MEDICAL ATTENTION.

IF ON SKIN: FLUSH WITH PLENTY OF WATER. IF IRRITATION OCCURS AND PERSISTS, GET MEDICAL ATTENTION.

IF SWALLOWED: IF CONSCIOUS, DILUTE BY DRINKING UP TO A CUPFUL OF MILK OR WATER AS TOLERATED.

IF INHALED: NO SPECIFIC FIRST AID MEASURES ARE REQUIRED.

EMERGENCY TELEPHONE: 1-866-923-4913

MOST IMPORTANT SYMPTOMS / EFFECTS: MAY BE MILDLY IRRITATING TO EYES.

MEDICAL CONDITIONS AGGRAVATED: NONE KNOWN.

NOTE TO PHYSICIAN: CALL 1-866-923-4913 FOR EXPOSURE MANAGEMENT ASSISTANCE.

5. FIRE-FIGHTING MEASURES

CHEMICAL HAZARDS: NON-FLAMMABLE.

COMBUSTION PRODUCT HAZARDS: OXIDES OF CARBON, SULFUR + OTHER FUMES.

METHODS: SELECT EXTINGUISHER AND METHODS BASED ON FIRE SIZE AND TYPE.

EQUIPMENT: WEAR SCBA AND FULL PROTECTIVE GEAR AS CONDITIONS WARRANT.

NFPA RATING: HEALTH-1/FLAMMABILITY-0/ INSTABILITY-0/SPECIAL HAZARD-N.AP.

SUITABLE EXTINGUISHERS: WATER, DRY CHEMICAL, CO2 OR FOAM SUITABLE FOR FIRE.

UNSUITABLE EXTINGUISHERS: NO RESTRICTIONS BASED ON CHEMICAL HAZARDS.

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS: KEEP PEOPLE OUT OF AREA. WEAR RUBBER BOOTS. BE CAREFUL NOT TO SLIP. WASH THOROUGHLY AFTER CLEAN-UP.

ENVIRONMENTAL PRECAUTIONS: PREVENT SPILL FROM ENTERING DRAIN, STORM SEWER OR SURFACE WATERWAY. PREVENT WATER AND SOIL CONTAMINATION.

CLEAN-UP METHODS: SMALL SPILLS MAY BE WIPED UP AND RINSED WITH WATER. FOR LARGER SPILLS, DIKE TO CONTAIN. PUMP TO LABELED CONTAINER OR ABSORB SPILLAGE AND SCOOP UP WITH INERT ABSORBENT MATERIAL. AFTER SPILL COLLECTION, RINSE AREA WITH WATER AND FOLLOW WITH NORMAL CLEAN-UP PROCEDURES.

7. HANDLING AND STORAGE

HANDLING: FOLLOW ALL LABEL DIRECTIONS. INSTRUCT PERSONNEL ABOUT PROPER USE, HAZARDS, PRECAUTIONS, AND FIRST AID MEASURES. AVOID CONTACT WITH EYES. DO NOT TASTE OR SWALLOW. PRODUCT RESIDUE MAY REMAIN ON OR IN EMPTY CONTAINERS. HANDLE CAREFULLY TO AVOID DAMAGING CONTAINER.

STORAGE: KEEP CONTAINER CLOSED WHEN NOT IN USE. STORAGE AT AMBIENT TEMPERATURES IN A DRY AREA OUT OF DIRECT SUNLIGHT. PROTECT FROM FREEZING. ROTATE STOCK REGULARLY. KEEP AWAY FROM FOOD AND DRINK. KEEP OUT OF REACH OF CHILDREN.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Page 3 of 4

EXPOSURE LIMITS: NONE**ENGINEERING CONTROLS:** NONE REQUIRED. GENERAL ROOM VENTILATION IS ADEQUATE.**PERSONAL PROTECTION****EYES:** NONE REQUIRED WITH NORMAL USE.**HANDS:** NONE REQUIRED WITH NORMAL USE.**RESPIRATORY:** N.AP.**FEET:** N.AP.**BODY:** N.AP.**9. PHYSICAL AND CHEMICAL PROPERTIES****APPEARANCE:** BLUE LIQUID**ODOR:** LEMON**pH CONCENTRATE:** 7.3**pH @ 2500 PPM SOLUTION:** N.AV.**pH @ USE DILUTION:** N.AV.**PHYSICAL STATE:** LIQUID**RELATIVE DENSITY (WATER):** 1.035**SOLUBILITY (WATER):** COMPLETE**VAPOR PRESSURE:** N.AV.**VAPOR DENSITY:** N. AV.**VISCOSITY:** VISCOUS**AUTO-IGNITION TEMPERATURE:** N.AV.**DECOMPOSITION TEMPERATURE:** N.AV.**EXPLOSIVE LIMITS (LEL/UEL):** NONE**EVAPORATION RATE:** N.AV.**FLAMMABILITY (SOLID, GAS):** N.AP.**FLASH POINT:** NONE**INITIAL BOILING POINT/RANGE:** N.AV.**MELTING POINT/FREEZING POINT:** N.AV.**ODOR THRESHOLD:** N.AV.**PARTITION COEFF. (N-OCTANOL/WATER):** N.AV.**OTHER:** N.AV.**10. STABILITY AND REACTIVITY****REACTIVITY:** NO HAZARD.**CHEMICAL STABILITY:** STABLE.**POSSIBILITY OF HAZARDOUS REACTIONS:** NONE KNOWN. WILL NOT POLYMERIZE.**CONDITIONS TO AVOID:** TEMPERATURES BELOW 35°F (1.6°C) OR ABOVE 120°F (49°C).**MATERIALS TO AVOID:** DIRECT MIXING WITH OTHER CHEMICALS. MIX ONLY WITH WATER.**HAZARDOUS DECOMPOSITION PRODUCTS:** NONE UNDER NORMAL CONDITIONS.**11. TOXICOLOGICAL INFORMATION****ROUTES OF EXPOSURE:** EYES, SKIN, INGESTION, INHALATION.**INFORMATION ON ROUTES OF EXPOSURE:** NO LC50/LD50 TEST DATA FOR MIXTURE.**ACUTE EFFECTS/SYMPTOMS****EYES:** MAY BE MILDLY IRRITATING TO EYES. MAY CAUSE REDNESS AND WATERING.**SKIN:** MAY BE MILDLY IRRITATING TO SENSITIVE SKIN.**INGESTION:** MAY CAUSE IRRITATION, NAUSEA, VOMITING AND DIARRHEA.**INHALATION:** NONE KNOWN.**CHRONIC / OTHER EFFECTS:** NO REPORTABLE GERM CELL MUTAGENS, SKIN SENSITIZERS, RESPIRATORY SENSITIZERS, REPRODUCTIVE TOXINS OR ASPIRATION HAZARDS.**SPECIFIC TARGET ORGANS (SINGLE/REPEATED):** NONE KNOWN.**NUMERICAL MEASURES OF TOXICITY:** ATEmix (ORAL-RAT) = >5000 MG / KG**CARCINOGENS:** NO REPORTABLE ACGIH, IARC, NTP, OR OSHA CARCINOGENS.

12. ECOLOGICAL INFORMATION

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ECOTOXICITY / CHEMICAL FATE: NOT AVAILABLE**13. DISPOSAL CONSIDERATIONS**

DISPOSAL METHOD: DISPOSE OF CONTENTS IN ACCORDANCE WITH ALL FEDERAL, STATE, AND LOCAL APPLICABLE LAWS AND REGULATIONS. CONSULT STATE AND LOCAL AUTHORITIES FOR RESTRICTIONS ON DISPOSAL OF CHEMICAL WASTE. MANAGE CHEMICAL WASTES THROUGH AN APPROVED WASTE TREATMENT FACILITY. DO NOT REUSE EMPTY CONTAINER. RINSE EMPTY CONTAINER THOROUGHLY WITH WATER BEFORE DISCARDING CONTAINER IN ACCORDANCE WITH CURRENT LOCAL COMMUNITY CODES. PLEASE RECYCLE EMPTY CONTAINER WHENEVER POSSIBLE.

14. TRANSPORT INFORMATION**DOT / IMDG / IATA / TDG:** NOT REGULATED**15. REGULATORY INFORMATION**

EPA CERCLA RQ: NO
EPA REGISTERED: NO
OSHA HAZARDOUS: NO
PHOSPHORUS CONTENT: 0.00%
PROPOSITION 65: NO
SARA 311/312 HAZARDS: NO
SARA 313 CHEMICALS: NO
STATE RIGHT TO KNOW: WATER/7732-18-5, SODIUM DODECYLBENZENESULFONATE/25155-30-0, SODIUM LAURETH SULFATE/9004-82-4
TSCA INVENTORY STATUS: ALL COMPONENTS ARE LISTED ON THE INVENTORY.
VOC: 0.80% CALCULATION METHOD USED IS BASED ON CALIFORNIA ARB STANDARD.

16. OTHER INFORMATION

PREPARATION DATE: 2-12-14 **PREPARED BY:** RC **REVISED SECTION:** 16
ABBREVIATIONS: N.AV. = NOT AVAILABLE N.AP. = NOT APPLICABLE

NOTICE TO READER

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