

Safety Data Sheet

according to Federal Register / Col. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations Revision Date: 02/25/2015

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product Identifier

Product Form : Mixture

Product Name : Lift-Off Ammoniated Stripper

Product Code : 3710-5

1.2 Relevent identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : Floor Stripping Products

1.3 Details of the supplier of the safety data sheet

Twi-Laq Industries, Inc. 1345 Seneca Avenue Bronx, NY 10474 T (718) 638-5860

1.4 Emergency telephone number

Emergency number : CHEM-TREC 1-800-424-9300

SECTION 2: Hazards Identification

2.1 Classification of the substance or mixture

Classification (GHS-US)

Skin Corr. 1A H314

2.2 Label Elements

GHS-US labeling

Hazard pictograms (GHS-US)



Signal Word (GHS-US) : Danger

Hazard Statements (GHS-US) : H314 - Causes severe burns and eye damage

Precautionary statements (GHS-US) : P260 - Do not breathe dust/mist/spray

P264 - Wash hands and forearms thoroughly after handling P280 - Wear Protective gloves/eye protection/face protection

P301+P330+P331 - If swallowed: rinse mouth. DO NOT induce vomiting

P303+P361+P353 - If on skin (or hair): Take off immediately all contaminated clothing. Rinse

skin with water/shower

P304+P340 - If inhaled; Remove person to fresh air and keep comfortable for breathing

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

P321 - Specific treatment (see first aid measures on this label)

P363 - Wash contaminated clothing before reuse

P405 - Store locked up

P501 - Dispose of contents/container in accordance with local/regional/national/international regulations

2.3 Other Hazards

No additional information available

2.4 Unknown Acute Toxicity

No Data Available

SECTION 3: Composition / Information on Ingredients

3.1 Substance

Not Applicable

3.2 Mixture

Name	Product Identifier	%	Classification (GHS-US)
2-butoxyethanol	(CAS No.) 111-76-2	1 - 5	Flam. Liq. 4, H227
			Acute Tox. 4 (Oral), H302
			Acute Tox. 3 (Dermal), H311
			Acute Tox. 2 (Inhalation:gas), H330
			Skin Irrit. 2, H315
			Eye Irrit. 2A, H319
disodium metasilicate	(CAS No.) 6834-92-0	1 - 5	Skin Corr. 1B, H314
			STOT SE 3, H335

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potassium hydroxide	(CAS No.) 1310-58-3	1 - 5	Acute Tox. 3 (Oral), H301
			Skin Corr. 1B, H314
			Aquatic Acute 3, H402
2-aminoethanol	(Cas No.) 141-43-5	1 - 5	Flam. Liq. 4, H227
			Acute Tox. 4 (Oral), H302
			Acute Tox. 3 (Dermal), H312
			Skin Corr. 1B, H314
ammonium hydroxide, aqueous sol, conc=25%	(Cas No.) 1336-21-6	1 - 5	Skin Corr. 1B, H314
			Aquatic Acute 1, H400

SECTION 4: First Aid Measures

4.1 Description of First Aid measures

First Aid measures general : Never give anything by mouth to an onconscious person. If you feel unwell, seek medical advice

(show label where possible)

First Aid measures after inhalation : Remove to fresh air and keep at rest in a position comfortable for breathing. Immediately call a

POISON CENTER or doctor/physician

First Aid measures after skin contact : Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

Immediately call a POISON CENTER or doctor/physician.

First Aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to

do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.

First Aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms / injuries : Causes severe skin burns and eye damage.

4.3 Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Firefighting Measures

5.1 Extinguishing Media

Suitable extinguishing media : Foam. Dry powder. Carbon Dioxide. Water spray. Sand.

Unsuitable extinguishing media : Do not use a heavy water stream

5.2 Special hazards arising from the substance or mixture

Reactivity : Thermal decomposition generates: Corrosive vapors.

5.3 Advice for firefighters

Firefighting Instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any

chemical fire. Prevent fire-fighting water from entering environment.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection

SECTION 6: Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

6.1.1 For non-emergency personnel

Emergency Procedures : Evacuate unnecessary personnel

6.1.2 For emergency responders

Protective Equipment : Equip cleanup crew with proper protection

Emergency Procedures : Ventilate area

6.2 Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up. : Soak up spills with inert solids, sush as clay or diatomaceous earth as soon as possible. Collect

spillage. Store away from other materials.

6.4 Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and Storage

7.1 Precautions for safe handling

Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when

leaving work. Provide good ventilation in process area to prevent formation of vapor. Do not breathe

dust/mist/spray. Avoid contact during pregnancy/while nursing

Hygiene measures : Wash hands and forearms thoroughly after handling.

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7.2 Conditons for safe storage, including any incompatibilities

Technical measures : Comply with applicable regulations.

Storage conditions : Keep only in the original container in a cool, well ventilated place. Keep container closed when not in use

Incompatible products : Strong bases. Strong acids.
Incompatible Materials : Sources of ignition. Direct sunlight.

7.3 Specific end use(s)

No additional information available

SECTION 8: Exposure controls / personal protection

8.1 Control parameters

potassium hydroxide (1310-58-3)		
USA ACGIH	ACGIH Ceiling (mg/m3)	2mg/m3
USA ACGIH	Remark (ACGIH)	URT, eye, & skin irr
2-butoxyethanol (111-76-2)		
USA ACGIH	ACGIH TWA (ppm)	20 ppm
USA ACGIH	ACGIH STEL (ppm)	20 ppm
USA ACGIH	Remark (ACGIH)	Eye & URT irr
USA OSHA	OSHA PEL (TWA) (mg/m3)	240 mg/m3
USA OSHA	OSHA PEL (TWA) (ppm)	50ppm
2-aminoethanol		
USA ACGIH	ACGIH TWA (ppm)	3 ppm
USA ACGIH	ACGIH STEL (ppm)	3 ppm
USA ACGIH	Remark (ACGIH)	Eye & Skin irr
USA OSHA	OSHA PEL (TWA) (mg/m3)	6mg/m3
USA OSHA	OSHA PEL (TWA) (ppm)	3ppm

8.2 Exposure controls

Personal Protective Equipment : Avoid all unnecessary exposure

Hand Protection : Wear protective gloves/eye protection/face protection.

Eye Protection : Chemical goggles or face shield Respiratory Protection : Wear appropriate mask.

Other Information : Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state : Liquid
Color : Blue
Odor : ammonia odor
Odor threshold : No data available

pH : 13

Relative evaporation rate (butyl acetate= : No data available Melting Point : No data available Freezing Point : No data available : 212°F - 220°F **Boiling Point** : ≥ 200°F Flash Point Auto-ignition temperature : No data available : No data available Decomposition temperature Flammability (solid, gas) : No data available Vapor Pressure · No data available Relative vapor density @ 20°C : Equivalent to water Relative density : 1.03

Solubility : Soluble in Water Log Pow · No data available Log Kow : No data available Viscosity, kinematic : No data available Viscosity, dynamic : No data available **Explosive Properties** : No data available Oxidizing Properties : No data available **Explosive Limits** : No data available

SECTION 10: Stability and Reactivity

10.1 Reactivity

Thermal decomposition generates: Corrosive vapors.

10.2 Chemical Stability

Stable under normal Conditions

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10.3 Possibility of hazardous reactions

Not established

10.4 Conditions to avoid

Direct sunlight. Extremely high or low temperatures.

10.5 Incompatible materials

Strong Acids. Strong bases.

10.6 Hazardous decomposition products

Fume. Carbon Monoxide. Carbon Dioxide. Thermal decomposition generates: Corrosive vapors.

SECTION 11: Toxicological Information

disodium metasilicate (6834-92-0)

11.1 Information on toxicological effects

LD50 dermal rat

Acute Toxicity : Not classified

potassium hydroxide (1310-58-3)		
LD50 oral rat	273 mg/kg (Rat)	
ATE US (dermal)	273 mg/kg body weight	
2-butoxyethanol (111-76-2)		
LD50 oral rat	530 mg/kg (Rat; equivalent or similar to OECD 401; Literature study; 1746 mg/kg bodyweight; Rat; Experimental value)	
LD50 dermal rat	>2000 mg/kg body weight (Rat experimental val; OECD 402: Acute Dermal Toxicity)	
LD50 dermal rabbit	435 mg/kg body weight (Rabbit; Experimental val; OECD 402: Acute Dermal Toxicity; 435 mg/kg bodyweight; Rabbit; Wgt of evidence; Equivalent or similar to OECD 402)	
LC50 inhalation rat (mg/l)	2.17 mg/l/4h (Rat; Experimental value; 2.35 mg/l/4h; Rat; Experimental value)	
LC50 inhalation rat (ppm)	450 - 486 ppm/4h 450 - 486, Rat	
ATE US (oral)	530.00 mg/kg body weight	
ATE US (dermal)	435.00 mg/kg body weight	
ATE US (gases)	450.00 ppmV/4h	
ATE US (vapors)	2.17 mg/l/4h	
ATE US (dust, mist)	2.17 mg/l/4h	

>5000 mg/kg body weight (Rat; Read-across; OECD 402: Acute Dermal Toxicity)

2-aminoethanol	
LD50 oral rat	1720 mg/kg (Rat)
LD50 dermal rabbit	1018 mg/kg (Rabbit)
ATE US (oral)	1720.00 mg/kg body weight
ATE US (dermal)	1018.00 mg/kg body weight

Skin corrosion / irritation : Causes severe skin burns

pH: 13

Serious eye damage / irritation : Causes eye damage

Causes pH: 13

Respiratory or skin sensitization : Not classified Germ cell mutagenicity : Not classified Carcinogenicity : Not classified : Not classified

2-botoxyethanol (111-76-2)
IARC group 3 - Not classifiable

Reproductive Toxicity : Not classified Specific target organ toxicity (single exposure) : Not classified Specific target organ toxicity (repeated exposure) : Not classified Aspiration hazard : Not classified

Potential Adverse human health effects and symptoms : Based on available date, the classification criteria are not met.

SECTION 12: Ecological Information

12.1 Toxicity

disodium metasilicate (6834-92-0)		
LC50 fish 1	210 mg/l (96 h; Brachydanio rerio)	
EC50 Daphnia 1	216 mg/l (96h; Daphnia magna; Static system)	
LC50 fish 2	2320 mg/l (96h; Gambusia affinis)	
EC50 Daphnia 2	632 mg/l (96 h; Lymnaea sp.; Static system)	
Threshold limit algae 1	207 mg/l (72 h; Scenedesmus subspicatus; GLP)	

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potassium hydroxide (1310-58-3)	
LC50 fish 1	28.6 mg/l (24 h; Pisces; Pure substance)
LC50 other aquatic organisms	100 - 1000 mg/l (96 h)
LC50 fish 2	80 mg/l (96 h; Gambusia affinis; Pure substance)
Threshold limit other aquatic organisms	100 - 1000 (96 h)
2-butoxyethanol (111-76-2)	
LC50 fish 1	116 ppm (96 h; Cyprinodon variegatus; Nominal concentration)
EC50 Daphnia 1	1700 mg/l (48 h; Daphnia sp.; Nominal concentration)
LC50 fish 2	1341 ppm (96 h; Lepomis macrochirus)
EC50 Daphnia 2	1720 mg/l (24 h; Daphnia magna)
TLM fish 1	100 - 1000, 96 h; Pisces
TLM other aquatic organisms	100 - 1000, 96 h
Threshold limit algae 1	900 mg/l (168 h; Scenedesmus quadricauda)
Threshold limit algae 2	35 mg/l (192 h; Microsystis aeruginosa)
2-aminoethanol (141-43-5)	
LC50 fish 1	150 mg/l 96 h; Salmo gairdneri (Oncorhynchus mykiss)
EC50 Daphnia 1	1700 mg/l (48 h; Daphnia sp.; Nominal concentration)
LC50 fish 2	1341 ppm (96 h; Lepomis macrochirus)
TLM fish 1	100 - 1000, 96 h; Pisces
TLM other aquatic organisms	100 - 1000, 96 h
Threshold limit algae 1	900 mg/l (168 h; Scenedesmus quadricauda)
Threshold limit algae 2	35 mg/l (192 h; Microsystis aeruginosa)

12.2

Lift-Off Ammoniated Stripper		
Persistence and degradability	Not established	
disodium metasilicate (6834-92-0)		
Persistence and degradability	Biodegradability: Not Established. No (test) data on mobility of substance available.	
Biochemical oxygen demand (BOD)	Not Applicable	
Chemical oxygen demand (COD	Not Applicable	
ThOD	Not Applicable	
BOD (% of ThOD)	Not Applicable	
potassium hydroxide (1310-58-3)		
Persistence and degradability	Biodegradability: Not Established. No (test) data on mobility of substance available.	
Biochemical oxygen demand (BOD)	Not Applicable	
Chemical oxygen demand (COD	Not Applicable	
ThOD	Not Applicable	
BOD (% of ThOD)	Not Applicable	
2-butoxyethanol (111-76-2)		
Persistence and degradability	Readily biodegradable in water. Biodegradable in soil. Photodegradation in the air.	
Biochemical oxygen demand (BOD)	0.71g O ₂ /g substance	
Chemical oxygen demand (COD	2.20g O ₂ /g substance	
ThOD	2.305g O₂/g substance	
BOD (% of ThOD)	0.31 % ThOD	
2-aminoethanol (141-43-5)		
Persistence and degradability	Readily biodegradable in water. Biodegradable in soil.	
Biochemical oxygen demand (BOD)	0.80g O2/g substance	
Chemical oxygen demand (COD	1.34g O2/g substance	
ThOD	2.49g O2/g substance	
BOD (% of ThOD)	0.32 % ThOD	
ammonium hydroxide, aqueous solution, con	ic=25% (1336-21-6)	
Persistence and degradability	Readily biodegradable in water. Biodegradable in soil. Ozonation in the air.	

12.3 Bioaccumulative potential

Millennium EXP		
Bioaccumulative potential	Not established	
disodium metasilicate (6834-92-0)		
Bioaccululative potential	Bioaccumulation: Not applicable. Not established.	
potassium hydroxide (1310-58-3)		
Bioaccululative potential	Not bioaccumulative.	

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2-butoxyethanol (111-76-2)		
Log Pow	-1.91	
Bioaccululative potential	Bioaccumulation: Not applicable. Not established.	
2-aminoethanol (141-43-5)		
Bioaccululative potential	Not bioaccumulative.	
ammonium hydroxide, aqueous solution, conc=25% (1336-21-6)		
Bioaccululative potential	Not bioaccumulative.	

12.4 Mobility in Soil

2-butoxyethanol (111-76-2)		
Surface Tension	0.027 N/m (25°C)	
2-aminoethanol (141-43-5)		
Surface Tension	0.050 N/m	

12.5 Other adverse effects

Effect on ozone layer : No additional information available

Effect on the global warming : No known ecological damage caused by this product

Other information : Avoid release to the environment

SECTION 13: Disposal Considerations

13.1 Waste Treatment Methods

Waste disposal recommendations : Dispose in a safe manner in accordance with local, state, and federal regulations.

Ecology - Waste materials : Avoid release to the environment

SECTION 14: Transport Information

In accordance with DOT

Transport document description : UN1760 Compounds, cleaning liquid, Class 8, PGII, (Contains Potassium Hydroxide)

UN No. (DOT) : UN1760 DOT NA no. : NA1760

Proper Shipping Name : Compounds, cleaning liquid Contains Potassium Hydroxide

DOT Hazard Classes : 8 - Class 8 - Corrosive material 49 CFR 173.136

Hazard Labels (DOT)



DOT symbols : D - Proper shipping name for domestic use only, or to and from Canada, G - Identifies PSN requiring a technical name

Packing Group
DOT special Provisions

(49 CFR 172.102)

: II - Medium Danger

: B2-MC 300, MC 301, MC 302, MC 303, MC 305, and MC 306 and DOT 406 cargo tanks are not authorized. IB2 - Authorized IBCs: Meetal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50C (1.1 bar at 122F), or 130 kPa at 55C (1.3 bar at 131F) are authorized.

N37 - This material may be shipped in an integrally-lined fiber drum (qG) which meets the general packaging requirements of subpart B of part 173 of this subchapter, the requirements of part 178 of this subchapter at the packing group assigned for the material and to any other special provisions of column 7 of the 172.101 table.

T11 - 6 178.274(d)(2) Normal..... 178.275(d)(3)

TP2 - a. The maximum degree of filling must not exceed the degree of fillinf determined by the follosing: (image) Where: tr is the maximum mean bulk temperature during transport, tf is the expansion of the liquid between the mean temperature of the liquid during filling (tf) and the liquids transported under ambient conditions may be calculated using for formula: (image) Where: d15 and d50 are the densities (in units of mass per unit volume) of the liquid at 15C (59F) and 50C (122F), respectively.

TP27 - A portable tank having a inumum test pressure of 4 bar (400kPa) may be used provided the calculated test

TP27 - A portable tank having a inumum test pressure of 4 bar (400kPa) may be used provided the calculated test pressure is 4 bar or less based on the MAWP of the hazardous material, as deinved in 178.275 of this subchapter, where the test pressure is 1.5 times the MAWP.

DOT Packagine Exceptions (49 CFR 173.xxx) : 154
DOT Packaging Non Bulk (49 CFR 173.xxx) : 202
DOT Packaging Bulk (49 CFR 173.xxx) 242
DOT Quantity Limitations passenger Aircraft/ : 1L

(49 CFR 175.75

DOT Vessel Stowage Location : B - (i) The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel carrying a

number of passengers limited to not more than the larger of 25 passengers, or one passenger per each 3m of overall vessel length; and (ii) "on deck only" on passenger vessels in which the number of passengers specified in paragraph

(k)(2)(i) of this section is exceeded.

DOT Vessel Stowage Other : 40 - Stow "clear of living quarters"

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Additional Information

Other Information : No supplementary information available

ADR

Transport document description

Transport by sea : No additional information available
Air transport : No additional information available

SECTION 15: Regulatory Information

15.1 US Federal Regulations

disodium metasilicate (6834-92-0)

Not listed on the United States TSCA (Toxic Substances Control Act) inventory.

potassium hydroxide (1310-58-3)

Listed on the United States TSCA (Toxic Substances Control Act) inventory.

Not listed on the United States SARA Section 313
RQ (Reportable Quantity, section : 1000 lbs

304 of EPA's List of Lists)

ammonium hydroxide, aqueous solution, conc=25% (1336-21-6)

Listed on the United States TSCA (Toxic Substances Control Act) inventory.

Listed on the United States SARA Section 313

RQ (Reportable Quantity, section : 1000 lbs
304 of EPA's List of Lists)

15.2 International Regulations

CANADA

No additional information available

EU Regulations

No additional information available

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Classification according to Directive 67/548/EEC [DSD] or 1999/44/EC [DPD]

Not Classified

15.2.2 National Regulations

No additional information available

SECTION 16: Other Information

Revision Date : 2/27/2015
Other Information : None

Full text of H-phrases

Acute Tox. 2 (inhalation: gas)	Acute Toxicity (inhalation:gas) Category 2
Acute Tox. 3 (Dermal)	Acute Toxicity (dermal) Category 3
Acute Tox. 3 (Oral)	Acute Toxicity (oral) Category 3
Acute Tox. 4 (Dermal)	Acute Toxicity (dermal) Category 4
Acute Tox. 4 (Oral)	Acute Toxicity (oral) Category 4
Aquatic Acute 1	Hazardous to the aquatic environment - Acute Hazard Category 1
Aquatic Acute 3	Hazardous to the aquatic environment - Acute Hazard Category 3
Eye Irrit. 2A	Serious eye damage/eye irritation Category 2A
Flam. Liq. 4	Flammable Liquids Category 4
Skin Corr. 1A	Skin corrosion/irritation Category 1A
Skin Corr. 1B	Skin corrosion/irritation Category 1B
Skin Irrit. 2	Skin corrosion/irritation Category 2
STOT SE 3	Specific target organ toxicity (single exposure) Category 3
H227	Combustible Liquid
H301	Toxic if swallowed
H302	Harmful if swallowed
H311	Toxic in contact with skin
H314	Causes severe burns and eye damage
H315	Causes skin irritation
H319	Causes serious eye irritation
H330	Fatal if inhaled
H335	May cause respiratory irritation

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H400	Very toxic to aquatic life
H402	Harmful to aquatic life

HMIS III Rating

Health : 2 Moderate Hazard - Termporary or minor injury may occur

Flammability : 0 Minimal Hazard
Physical : 1 Slight Hazard

Personal Protection : B

SDS US (GHS Hazcom 2012)

NOTICE: NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OF ANY OTHER NATURE, ARE MADE WITH RESPECT TO INFORMATION CONCERNING THE PRODUCT REFERRED TO IN THIS MATERIAL SAFETY DATA SHEET.

The goal of defining precisely, in measurable terms, every possible health effect that may occur in the workplace as a result of chemical exposures cannot realistically be accomplished. The information and recommendation contained in this Safety Data Sheet are supplied pursuant to 29 C.F.R. 1910.1200 of the Occupational Safety and Health Standards Hazard Communication Rule. The information and recommendations set forth herein are presented in good faith and believed to be correct as of the date hereof. Twi-Laq Industries, Inc., however, makes no representations as to the completeness or accuracy thereof, and information is supplied upon the express condition that the persons receiving the same will be required to make their own determination as to its suitability for their purposes prior to use. In no event will Twi-Laq Industries, Inc. be responsible for any damages of any nature whatsoever resulting from the use of, reliance upon, or the misuse of this information. The information as supplied herein is simply to be informative and intended solely to alert the user of the substance which is the subject matter of this Material Safety Data Sheet. The ultimate compliance with federal, state and local regulations concerning the use or disposal of this compound, or compliance with respect to products liability, rests solely upon the purchaser thereof.