

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

1.1. Product identifier

Product form : Mixture
 Trade name : Prolystica® 2X Concentrate Alkaline Detergent
 Product code : 1C34

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

Use of the substance/mixture : Alkaline Detergent
 Use of the substance/mixture : For hospital and professional use only. Not for home use.

1.3. Details of the supplier of the safety data sheet

STERIS Corporation
 P. O. Box 147, St. Louis, MO 63166, US
 Telephone Number for Information: 1-800-548-4873 (Customer Service - Healthcare Products)

1.4. Emergency telephone number

Emergency number : US Emergency Telephone No.1-314-535-1395 (STERIS); 1-800-424-9300 (CHEMTREC)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS-US classification

Skin Corr. 1A H314
 Eye Dam. 1 H318

2.2. Label elements

GHS-US labelling

Hazard pictograms (GHS-US) :



GHS05

Signal word (GHS-US) : Danger
 Hazard statements (GHS-US) : H314 - Causes severe skin burns and eye damage.
 H318 - Causes serious eye damage.
 Precautionary statements (GHS-US) : P260 - Do not breathe mist, spray, vapors
 P264 - Wash hands thoroughly after handling.
 P280 - Wear eye protection, protective clothing, protective gloves.
 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 doctor, a POISON CENTER.
 P321 - Specific treatment (see on this label).
 P363 - Wash contaminated clothing before reuse.

2.3. Other hazards

No additional information available.

2.4. Unknown acute toxicity (GHS-US)

No data available.

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable.

Full text of H-phrases: see Section 16.

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3.2. Mixture

Name	Product identifier	%	GHS-US classification
Sodium hydroxide	(CAS No) 1310-73-2	1 - 3	Acute Tox. 4 (Dermal), H312 Skin Corr. 1A, H314 Eye Dam. 1, H318
Sodium octyl sulfate	(CAS No) 142-31-4	1 - 2	Skin Irrit. 2, H315 Eye Dam. 1, H318
1-Octanamine, N,N-dimethyl-, N-oxide	(CAS No) 2605-78-9	1 - 2	Skin Irrit. 2, H315 Eye Irrit. 2A, H319 STOT SE 3, H335
1,2,4-Butanetricarboxylic acid, 2-phosphono-	(CAS No) 37971-36-1	0.5 – 1.5	Met. Corr. 1, H290 Eye Irrit. 2A, H319
Methyl-oxirane polymer with oxirane	(CAS No) 9003-11-6	0.5 – 1.5	Not classified

SECTION 4: First aid measures

4.1. Description of first aid measures

- First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the 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. If not breathing, give artificial respiration. Seek medical attention immediately.
- First-aid measures after skin contact : Remove/Take off immediately all contaminated clothing. Immediately flush skin with plenty of water for at least 15 minutes. Obtain medical attention.
- First-aid measures after eye contact : Remove contact lenses, if present and easy to do. Continue rinsing. Immediately flush eyes thoroughly with water for at least 15 minutes. Seek medical attention immediately.
- First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Give water to drink if victim completely conscious/alert. 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.
- Symptoms/injuries after inhalation : Fine dispersion/spraying/misting: Irritation of the respiratory tract and the other mucous membranes.
- Symptoms/injuries after skin contact : Causes chemical burns.
- Symptoms/injuries after eye contact : Causes serious eye damage.
- Symptoms/injuries after ingestion : Corrosive to mouth, throat and stomach.

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 : Use fire-extinguishing media appropriate for surrounding materials. Foam. Dry powder. Carbon dioxide. Water spray.

5.2. Special hazards arising from the substance or mixture

- Fire hazard : May react with soft metals to evolve flammable hydrogen gas.
- Hazardous decomposition products in case of fire : Carbon monoxide. Carbon dioxide.

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.
- Protective equipment for firefighters : 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

- General measures : Stop leak if safe to do so. Avoid contact with skin, eyes and clothing. Avoid inhalation of vapor and spray mist. Spilled material may present a slipping hazard. Ensure adequate air ventilation. Work in a well-ventilated area.

6.1.1. For non-emergency personnel

- Emergency procedures : Evacuate unnecessary personnel.

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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, such as clay or diatomaceous earth as soon as possible. Collect spillage. Neutralise slowly product with a weak acid. Store away from other materials. Wash contaminated areas with large quantities of water to a sanitary sewer, if in accordance with local, state or national legislation.

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 : Avoid all eye and skin contact and do not breathe vapors and mist. Wear recommended PPE.
Hygiene measures : Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking, smoking, and before leaving work.

7.2. Conditions for safe storage, including any incompatibilities

- Storage conditions : Store in a dry, cool, and well-ventilated place. Keep container closed when not in use. Store away from incompatible materials. Storage areas should be periodically checked for corrosion and integrity.
Incompatible materials : strong acids, strong bases, and strong oxidizers.

7.3. Specific end use(s)

No additional information available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Sodium hydroxide (1310-73-2)		
USA - ACGIH	ACGIH (ceiling) (mg/m ³)	2 mg/m ³
USA - IDLH	US IDLH (mg/m ³)	10 mg/m ³
USA - NIOSH	NIOSH REL (ceiling) (mg/m ³)	2 mg/m ³
USA - OSHA	OSHA PEL (TWA) (mg/m ³)	2 mg/m ³

8.2. Exposure controls

- Appropriate engineering controls : Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Provide adequate ventilation.
Personal protective equipment : Avoid all unnecessary exposure. Personal protective equipment should be selected based upon the conditions under which this product is handled or used. Wear protective clothing.



- Hand protection : Wear rubber or neoprene gloves.
Eye protection : Wear chemical splash goggle or safety goggles.
Skin and body protection : Wear suitable protective clothing: rubber apron, boots, and face shield if necessary.
Respiratory protection : In case of insufficient ventilation, wear suitable respiratory equipment.
Other information : Do not eat, drink or smoke during use.

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SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Color	: Light yellow to peach
Odor	: Slight chemical odor
Odor threshold	: No data available
pH	: 12.7 - Approximately
pH solution	: 11.2 - Approximately (1% solution)
Relative evaporation rate (butyl acetate=1)	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapor pressure	: No data available
Relative vapor density at 20 °C	: No data available
Relative density	: No data available
Density	: 1.117 g/ml Specific Gravity
Solubility	: Water: Completely soluble
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.

9.2. Other information

No additional information available.

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid

No additional information available.

10.5. Incompatible materials

Acids, soft metals, oxidizers, organic halogen compounds. Contact with some metals such as magnesium, aluminum, zinc (galvanized), tin, chromium, brass and bronze may generate hydrogen. Reacts violently with acids liberating irritating gas. May evolve flammable hydrogen gas on contact with soft metals.

10.6. Hazardous decomposition products

Thermal decomposition generates : Corrosive vapors. Fume. Carbon monoxide. Carbon dioxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Corrosive to eyes and skin.

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1,2,4-Butanetricarboxylic acid, 2-phosphono- (37971-36-1)	
LD50 oral rat	> 4000 mg/kg
LD50 dermal rat	> 4000 mg/kg
LC50 inhalation rat (mg/l)	> 1979 mg/m ³ (Exposure time: 4 h)

Sodium hydroxide (1310-73-2)	
LD50 dermal rabbit	1350 mg/kg
ATE CLP (dermal)	1350.000 mg/kg bodyweight

Skin corrosion/irritation	: Causes severe skin burns pH: 12.7 Approximately
Serious eye damage/irritation	: Causes serious eye damage pH: 12.7 Approximately
Respiratory or skin sensitisation	: Not classified Based on available data, the classification criteria are not met
Germ cell mutagenicity	: Not classified Based on available data, the classification criteria are not met
Carcinogenicity	: Not classified Based on available data, the classification criteria are not met
Reproductive toxicity	: Not classified Based on available data, the classification criteria are not met
Specific target organ toxicity (single exposure)	: Not classified Based on available data, the classification criteria are not met
Specific target organ toxicity (repeated exposure)	: Not classified Based on available data, the classification criteria are not met
Aspiration hazard	: Not classified Based on available data, the classification criteria are not met
Potential Adverse human health effects and symptoms	: Not classified Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	: The surfactant(s) contained in this preparation complies(comply) with the biodegradability criteria as laid down in Regulation (EC) No. 648/2004 on detergents. Data to support this assertion are held at the disposal of the competent authorities of the Member States and will be made available to them, at their direct request or at the request of a detergent manufacturer.
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1,2,4-Butanetricarboxylic acid, 2-phosphono- (37971-36-1)	
EC50 other aquatic organisms 1	140 mg/l (Exposure time: 72 h - Species: <i>Desmodesmus subspicatus</i>)

Sodium hydroxide (1310-73-2)	
LC50 fishes 1	45.4 mg/l (Exposure time: 96 h - Species: <i>Oncorhynchus mykiss</i> [static])

12.2. Persistence and degradability

Prolystica® 2X Concentrate Alkaline Detergent	
Persistence and degradability	The surfactant(s) contained in this preparation complies(comply) with the biodegradability criteria as laid down in Regulation (EC) No. 648/2004 on detergents. Data to support this assertion are held at the disposal of the competent authorities of the Member States and will be made available to them, at their direct request or at the request of a detergent manufacturer.

12.3. Bioaccumulative potential

Prolystica® 2X Concentrate Alkaline Detergent	
Bioaccumulative potential	Not established.

1,2,4-Butanetricarboxylic acid, 2-phosphono- (37971-36-1)	
BCF fish 1	(No bioaccumulation expected)

12.4. Mobility in soil

No additional information available.

12.5. Other adverse effects

Avoid release to the environment.

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SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations : Product may be flushed to a sanitary sewer with copious amounts of water, if in accordance with local, state, or national legislation. Dispose in a safe manner in accordance with local/national regulations. Do not allow to enter into surface water or drains. Ensure all national/local regulations are observed.

SECTION 14: Transport information

In accordance with DOT

Transport document description : UN1824 SODIUM HYDROXIDE SOLUTION, 8, CORROSIVE, PG III
UN-No.(DOT) : 1824
DOT NA no. : UN1824
DOT Proper Shipping Name : Sodium hydroxide solution
Department of Transportation (DOT) Hazard Classes : 8 - Class 8 - Corrosive material 49 CFR 173.136
Hazard labels (DOT) : 8 - Corrosive



Packing group (DOT) : III - Minor Danger
DOT Vessel Stowage Other : 52 - Stow "separated from" acids

Additional information

Other information : No supplementary information available.

ADR

Transport document description : No additional information available

Transport by sea

IMDG Class : UN1824 SODIUM HYDROXIDE SOLUTION, 8, CORROSIVE, PG III

Air transport

ICAO/IATA : UN1824 SODIUM HYDROXIDE SOLUTION, 8, CORROSIVE, PG III
Only 5 Gallon and 20 Liter pails are approved for air shipment.

SECTION 15: Regulatory information

15.1. US Federal regulations

Prolystica® 2X Concentrate Alkaline Detergent

RQ (Reportable quantity, section 304 of EPA's List of Lists) : 34782 lb

1,2,4-Butanetricarboxylic acid, 2-phosphono- (37971-36-1)

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

Sodium hydroxide (1310-73-2)

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

RQ (Reportable quantity, section 304 of EPA's List of Lists) : 1000 lb

15.2. International regulations

Not applicable.

15.3. US State regulations

Not applicable.

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SECTION 16: Other information

Revision Date : 2/7/2017

Other information : None.

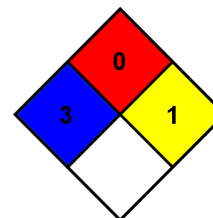
Full text of H-phrases:

Acute Tox. 4 (Dermal)	Acute toxicity (dermal) Category 4
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2A	Serious eye damage/eye irritation, Category 2A
Met. Corr. 1	Corrosive to metals, Category 1
Skin Corr. 1A	Skin corrosion/irritation Category 1A
Skin Irrit. 2	Skin corrosion/irritation Category 2
STOT SE 3	Specific target organ toxicity (single exposure) Category 3
H290	May be corrosive to metals
H312	Harmful in contact with skin
H314	Causes severe skin burns and eye damage
H315	Causes skin irritation
H318	Causes serious eye damage
H319	Causes serious eye irritation
H335	May cause respiratory irritation

NFPA health hazard : 3 - Short exposure could cause serious temporary or residual injury even though prompt medical attention was given.

NFPA fire hazard : 0 - Materials that will not burn.

NFPA reactivity : 1 - Normally stable, but can become unstable at elevated temperatures and pressures or may react with water with some release of energy, but not violently.



SDS US (GHS HazCom 2012)

The information on this sheet is not a specification and does not guarantee specific properties. The information is intended to provide general knowledge as to health and safety based upon our knowledge of the handling, storage and use of the product. It is not applicable to unusual or non-standard uses of the product or where instruction or recommendations are not followed.