Prolystica® 2X Concentrate Alkaline Detergent

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Date of issue: 11/04/2014 Version: 1.0

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 a doctor, a POISON CENTER.
P321 - Specific treatment (see on this label).
P363 - Wash contaminated clothing before reuse.
P405 - Store locked up.

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.

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, thoat 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.

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 : Product for industrial use only. Read label before use. Avoid all eye and skin contact and do not breathe vapor and mist. Provide good ventilation in process area to prevent formation of vapor. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Wear protective clothing. For further information refer to Section 8: Exposure-controls/personal protection.

Hygiene measures : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Separate working clothes from town clothes. Launder separately. Handle in accordance with good industrial hygiene and safety practices.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Comply with applicable regulations.

Storage conditions : Product is for hospital and professional use only. Keep only in original container. Keep container closed when not in use. Store in a dry, cool and well-ventilated place.

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.

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/m³)	2 mg/m³
USA - IDLH	US IDLH (mg/m³)	10 mg/m³
USA - NIOSH	NIOSH REL (ceiling) (mg/m³)	2 mg/m³
USA - OSHA	OSHA PEL (TWA) (mg/m³)	2 mg/m³

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. Protective clothing. Gloves. Protective goggles.

Hand protection : Wear rubber gloves.

Eye protection : Wear chemical splash goggle or safety goggles.

Skin and body protection : Wear suitable protective clothing. Rubber Apron and rubber boots.

Respiratory protection : In case of insufficient ventilation, wear suitable respiratory equipment. 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	:	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.

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/m³ (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.

1,2,4-Butanetricarboxylic acid, 2-phosphono- (37971-36-1)	
EC50 other aquatic organisms 1	140 mg/l (Exposure time: 72 h - Species: Desmodesmus subspicatus)

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

12.2. Persistence and degradability

Prolystica® 2X Concentrate Alkaline Detergent	
Persistence and degradability	Not established.

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.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations. Product may be flushed to a sanitary sewer with copious amounts of water, if in accordance with local, state or national legislation. Do not allow to enter into surface water or drains. Hazardous waste (corrosive) based on pH. Empty containers should be thoroughly rinsed with large quantities of clean water. Ensure all national/local regulations are observed.

Ecology - waste materials : Avoid release to the environment.

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

This product contains a chemical known to the State of California to cause cancer.

SECTION 16: Other information

Other information : None.

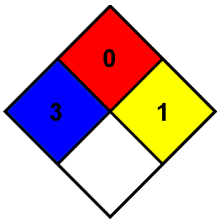
Full text of H-phrases:

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.