NAUTILUS PLUS

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Friday, Feb 03, 2017 / Rules and Regulations

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

1.1. Product identifier

Product form : Mixture

Product name : NAUTILUS PLUS

Product code : MCS-232

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

Dish machine detergent. Consult your Service Representative for specific use directions. Use only in an approved dispenser.

1.3. Details of the supplier of the safety data sheet

Beacon Labs
19 Elmwood Avenue
Kansas City, 66103 - USA
T 1-800-643-9070; 1-913-713-4120

1.4. Emergency telephone number

Emergency number : CHEMTREC: 1-800-424-9300

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (GHS-US)

Skin Corr. 1A H314

Full text of H-phrases: see section 16

2.2. Label elements

GHS-US labeling

Hazard pictograms (GHS-US) :

GHS05

Signal word (GHS-US) : Danger

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

Precautionary statements (GHS-US) : P260 - Do not breathe dust/fume/gas/mist/vapors/spray
P264 - Wash thoroughly after handling
P280 - Wear protective gloves/protective clothing/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 section 4)
P363 - Wash contaminated clothing before reuse
P405 - Store locked up
P501 - Dispose of contents/container to according to local, state, and federal regulations.

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Name	Product identifier	%	Classification (GHS-US)
sodium hydroxide, conc=50%, aqueous solution	(CAS No) 1310-73-2	30	Skin Corr. 1A, H314
NTA (sodium nitrilo-triacetate, monohydrate)	(CAS No) 18662-53-8	15	Acute Tox. 4 (Oral), H302
sodium hydroxide	(CAS No) 1310-73-2	11.76 - 12	Acute Tox. 4 (Dermal), H312 Skin Corr. 1A, H314

Full text of H-phrases: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

Eye contact: Immediately flush eye with copious amounts of cool, running water. Remove contact lenses if applicable, and continue flushing for at least 15 minutes, holding eyelids apart to ensure thorough rinsing of the entire eye. GET IMMEDIATE MEDICAL ATTENTION.

Skin contact: Immediately flush skin with copious amounts of cool, running water for at least 15 minutes while removing contaminated clothing and shoes. Call a physician, immediately. Wash clothing before re-use.

Inhalation: Move victim to fresh air and keep at rest position. If qualified give oxygen or artificial respiration as needed.

Ingestion: DO NOT induce vomiting. Give large amounts of water if victim is conscious. Never give anything by mouth to an unconscious person. Seek medical attention immediately.

First-aid: DO NOT use mouth-to-mouth method if victim ingested or inhaled the substance; induce artificial respiration With the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.

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

Skin/eye burns. Corrosive to mouth and throat. Ingestion can cause severe and rapid burning of mouth, throat and digestive tract. Mucous membrane irritant.

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

Notes to physician: If ingested, probable mucosal damage may contraindicate the use of gastric lavage.

SECTION 5: Firefighting measures

5.1. Extinguishing media

The material is not combustible. Use extinguishing media appropriate for surrounding fire. Use water spray or fog, foam, dry chemical, carbon dioxide, alcohol foam, if product is involved. Use of water spray when fighting fire may be inefficient.

5.2. Special hazards arising from the substance or mixture

No additional information available

5.3. Advice for firefighters

Wet product is slippery. Avoid physical contract with wet material; highly caustic. Wear self-contained positive pressurized breathing apparatus MSHA/NIOSH approved or equivalent to maintain TLV.

Explosion Data

Sensitivity to Mechanical Impact: None

Sensitivity to Static Discharge: None

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Ensure adequate ventilation. Avoid contact with skin, eyes, and clothing. Use personal protective equipment. Avoid breathing dust, fume, gas, mist, vapors, and spray. Wash face, hands and any exposed skin thoroughly after handling.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment.

Common weak acids suitable for neutralizing caustic alkalis: acetic acid, citric acid, lemon juice, tartaric acid, vinegar.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Prevent further leakage or spillage if safe to do so. Sweep up solids, soak up if liquified. Transfer to appropriate waste container. Neutralize residue with mild acid and flush with water. Dispose of in accordance with local, state, and federal regulations.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Use good personal hygiene practices. Wash hands before eating, drinking, smoking, or using toilet facilities. Wash thoroughly after work using soap and water. Do not eat, drink or smoke when using this product. Always use personal protective equipment.

7.2. Conditions for safe storage, including any incompatibilities

Store locked up. Keep container in well-ventilated area. Keep container tightly closed when not in operation. Store away from incompatible materials. Keep out of the reach of children.

7.3. Specific end use(s)

Dish machine detergent. Consult your Service Representative for specific use directions. Use only in an approved dispenser.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

NAUTILUS PLUS	
ACGIH	Not applicable
OSHA	Not applicable

sodium hydroxide (1310-73-2)		
ACGIH	ACGIH Ceiling (mg/m³)	2 mg/m³
ACGIH	Remark (ACGIH)	URT, eye, & skin irr
OSHA	OSHA PEL (TWA) (mg/m³)	2 mg/m³

sodium hydroxide, conc=50%, aqueous solution (1310-73-2)		
ACGIH	ACGIH Ceiling (mg/m³)	2 mg/m³
ACGIH	Remark (ACGIH)	URT, eye, & skin irr
OSHA	OSHA PEL (TWA) (mg/m³)	2 mg/m³

NTA (sodium nitrilo-triacetate, monohydrate) (18662-53-8)	
ACGIH	Not applicable
OSHA	Not applicable

8.2. Exposure controls

Engineering controls: Ensure adequate ventilation and that running water is available for washing eyes and skin.

Individual protection: Personal Protective Equipment (PPE)

Eye/Face Protection: Splash-proof chemical goggles or face shield.

Skin/Body Protection: Impervious rubber, alkali-proof protective gloves. Impervious rubber boots and apron.

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.

Hygiene measures: Remove and wash contaminated clothing before re-use.

Environmental release measures: Avoid release into environment

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Solid
Color	:	White
Odor	:	There may be no odour warning properties, odour is subjective and inadequate to warn of overexposure. Mixture contains one or more component(s) which have the following odour(s): Odourless
Odor threshold	:	No data available
pH	:	11.5
Melting point	:	No data available

Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: No data available
Explosion limits	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available
Vapor pressure	: No data available
Relative density	: No data available
Relative vapor density at 20 °C	: No data available
Solubility	: Water: Solubility in water of component(s) of the mixture : • : 15 g/100ml • : 42 g/100ml • : 31.7 g/100ml • : 22 g/100ml • : • : • :
Log Pow	: No data available
Log Kow	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Prolonged contact with aluminum (Al), copper (Cu), lead (Pb), zinc (Zn), tin (Sn) and other soft metals. Incompatible with ammonia and other clean products, strong acids, or strong oxidizers.

10.2. Chemical stability

Stable

10.3. Possibility of hazardous reactions

See section 10.1.

10.4. Conditions to avoid

See section 10.1.

10.5. Incompatible materials

See section 10.1.

10.6. Hazardous decomposition products

Hydrogen gas : with proglonged exposure to the metals listed in Section 10.1

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

sodium hydroxide (1310-73-2)	
LD50 dermal rabbit	1350 mg/kg (Rabbit; Literature)
ATE US (dermal)	1350.000 mg/kg body weight

NTA (sodium nitrilo-triacetate, monohydrate) (18662-53-8)	
LD50 oral rat	1200 mg/kg (Rat; Equivalent or similar to OECD 401; Read-across; 1740 mg/kg bodyweight; Rat)
ATE US (oral)	1200.000 mg/kg body weight

Skin corrosion/irritation : Causes severe skin burns and eye damage.
pH: 11.5

Serious eye damage/irritation : Not classified
pH: 11.5

Respiratory or skin sensitization : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

NTA (sodium nitrilo-triacetate, monohydrate) (18662-53-8)	
IARC group	2B - Possibly carcinogenic to humans

Reproductive toxicity : Not classified

Specific target organ toxicity (single exposure) : Not classified

Specific target organ toxicity (repeated exposure) : Not classified

Aspiration hazard : Not classified

SECTION 12: Ecological information

12.1. Toxicity

sodium hydroxide (1310-73-2)	
LC50 fish 1	45.4 mg/l (96 h; Salmo gairdneri (Oncorhynchus mykiss); Solution >=50%)
EC50 Daphnia 1	40.4 mg/l (48 h; Ceriodaphnia sp.; Nominal concentration)
LC50 fish 2	189 mg/l (48 h; Leuciscus idus)
TLM fish 1	99 mg/l (48 h; Lepomis macrochirus)
TLM fish 2	125 ppm (96 h; Gambusia affinis)

NTA (sodium nitrilo-triacetate, monohydrate) (18662-53-8)	
LC50 fish 1	252 mg/l (96 h; Lepomis macrochirus; Anhydrous form)
EC50 Daphnia 1	950 mg/l (24 h; Daphnia magna; Anhydrous form)
EC50 other aquatic organisms 1	180 - 320 mg/l (96 h; Microcystis aeruginosa; Anhydrous form)
LC50 fish 2	114 mg/l (96 h; Salmo gairdneri (Oncorhynchus mykiss); Anhydrous form)
Threshold limit algae 1	560 - 1000,96 h; Chlorella vulgaris; Anhydrous form

12.2. Persistence and degradability

sodium hydroxide (1310-73-2)	
Persistence and degradability	Biodegradability: not applicable. No (test)data on mobility of the substance available.
Biochemical oxygen demand (BOD)	Not applicable
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable

sodium hydroxide, conc=50%, aqueous solution (1310-73-2)	
Persistence and degradability	Biodegradability: not applicable. No (test)data on mobility of the components available.

NTA (sodium nitrilo-triacetate, monohydrate) (18662-53-8)	
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil. Low potential for adsorption in soil.

12.3. Bioaccumulative potential

sodium hydroxide (1310-73-2)	
Bioaccumulative potential	Bioaccumulation: not applicable.

sodium hydroxide, conc=50%, aqueous solution (1310-73-2)	
Bioaccumulative potential	Does not contain bioaccumulative component(s).

NTA (sodium nitrilo-triacetate, monohydrate) (18662-53-8)	
Log Pow	-10.08 (Conclusion by analogy; Other; 25 °C)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

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

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Dispose of contents/container according to local, state, and federal regulations.

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

Transport document description : UN3262 Corrosive solid, basic, inorganic, n.o.s., 8, II

UN-No.(DOT) : UN3262

Proper Shipping Name (DOT) : Corrosive solid, basic, inorganic, n.o.s.

Transport hazard class(es) (DOT) : 8 - Class 8 - Corrosive material 49 CFR 173.136

Hazard labels (DOT) : 8 - Corrosive

Packing group (DOT) : II - Medium Danger

DOT Packaging Non Bulk (49 CFR 173.xxx) : 212

DOT Packaging Bulk (49 CFR 173.xxx) : 240

DOT Symbols : G - Identifies PSN requiring a technical name

DOT Special Provisions (49 CFR 172.102) : IB8 - Authorized IBCs: Metal (11A, 11B, 11N, 21A, 21B, 21N, 31A, 31B and 31N); Rigid plastics (11H1, 11H2, 21H1, 21H2, 31H1 and 31H2); Composite (11HZ1, 11HZ2, 21HZ1, 21HZ2, 31HZ1 and 31HZ2); Fiberboard (11G); Wooden (11C, 11D and 11F); Flexible (13H1, 13H2, 13H3, 13H4, 13H5, 13L1, 13L2, 13L3, 13L4, 13M1 or 13M2).
IP2 - When IBCs other than metal or rigid plastics IBCs are used, they must be offered for transportation in a closed freight container or a closed transport vehicle.
IP4 - Flexible, fiberboard or wooden IBCs must be sift-proof and water-resistant or be fitted with a sift-proof and water-resistant liner.
T3 - 2.65 178.274(d)(2) Normal..... 178.275(d)(2)
TP33 - The portable tank instruction assigned for this substance applies for granular and powdered solids and for solids which are filled and discharged at temperatures above their melting point which are cooled and transported as a solid mass. Solid substances transported or offered for transport above their melting point are authorized for transportation in portable tanks conforming to the provisions of portable tank instruction T4 for solid substances of packing group III or T7 for solid substances of packing group II, unless a tank with more stringent requirements for minimum shell thickness, maximum allowable working pressure, pressure-relief devices or bottom outlets are assigned in which case the more stringent tank instruction and special provisions shall apply. Filling limits must be in accordance with portable tank special provision TP3. Solids meeting the definition of an elevated temperature material must be transported in accordance with the applicable requirements of this subchapter.

DOT Packaging Exceptions (49 CFR 173.xxx) : 154

DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) : 15 kg

DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) : 50 kg

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 3 m 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 : 52 - Stow ‘‘separated from’’ acids

Additional information

Other information : No supplementary information available.

ADR
No additional information available

Transport by sea
UN-No. (IMDG) : 3262
Proper Shipping Name (IMDG) : CORROSIVE SOLID, BASIC, INORGANIC, N.O.S.
Class (IMDG) : 8 - Corrosive substances
Packing group (IMDG) : II - substances presenting medium danger

Air transport
UN-No. (IATA) : 3262
Proper Shipping Name (IATA) : Corrosive solid, basic, inorganic, n.o.s.
Class (IATA) : 8 - Corrosives
Packing group (IATA) : II - Medium Danger

SECTION 15: Regulatory information

15.1. US Federal regulations

NAUTILUS PLUS
Not 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 Not listed on the United States SARA Section 313	
RQ (Reportable quantity, section 304 of EPA's List of Lists)	1000 lb

sodium hydroxide, conc=50%, aqueous solution (1310-73-2)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory Not listed on the United States SARA Section 313	
RQ (Reportable quantity, section 304 of EPA's List of Lists)	1000 lb

NTA (sodium nitrilo-triacetate, monohydrate) (18662-53-8)
Not listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2. International regulations

CANADA
No additional information available

EU-Regulations
No additional information available

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

Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]
Not classified

National regulations
No additional information available

15.3. US State regulations

NTA (sodium nitrilo-triacetate, monohydrate) (18662-53-8)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significance risk level (NSRL)
Yes	No	No	No	70

sodium hydroxide (1310-73-2)
U.S. - Massachusetts - Right To Know List U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) List

sodium hydroxide, conc=50%, aqueous solution (1310-73-2)
U.S. - Massachusetts - Right To Know List U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) List

SECTION 16: Other information

Full text of H-phrases:

Acute Tox. 4 (Dermal)	Acute toxicity (dermal) Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral) Category 4
Skin Corr. 1A	Skin corrosion/irritation Category 1A
H302	Harmful if swallowed
H312	Harmful in contact with skin
H314	Causes severe skin burns and eye damage

SDS US (GHS HazCom 2012)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product