Product Name	Sodium Hydroxide Soluti
Part Number	RXSOL-40-1308-050

Company Details:....

RX MARINE INTERNATIONAL
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Pure substance/mixture : Mixture

Chemical Name Cas No Concentration: (%) Sodium Hydroxide 1310-73-2 30 - 60 Signal Word Danger Hazard Statements May be corrosive to metals. Causes severe skin burns and eye damage. Precautionary statements Prevention: Keep only in original container. Wear protective gloves/ protective clothing/ eye protection/ face protection. Wash skin thoroughly after handling. Do not breathe dusts or mists. Response: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/ physician. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing. Wash contaminated clothing before reuse. Absorb spillage to prevent material damage. Storage: Store in corrosive resistant container with a resistant inner liner. Store locked up. Disposal: Dispose of contents/ container to an approved waste disposal plant.
Other hazards None known.

In case of eye contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately. In case of skin contact Wash off immediately with plenty of water for at least 15 minutes. Use a mild soap if available. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately. If swallowed Contact the Poison's Information Centre (eg Australia 13 1126; New Zealand 0800 764 766). Rinse mouth with water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention immediately. If inhaled Remove to fresh air. Treat symptomatically. Get medical attention if symptoms occur. Protection of first-aiders In event of emergency assess the danger before taking action. Do not put yourself at risk of injury. If in doubt, contact emergency responders. Use personal protective equipment as required. Notes to physician Treat symptomatically. Most important symptoms and effects, both acute and delayed See Section 11 for more detailed information on health effects and symptoms.

Suitable extinguishing media Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Unsuitable extinguishing media None known. Special hazards during firefighting Not flammable or combustible. Hazardous combustion products Decomposition products may include the following materials: None known Special Protective Equipment Use personal protective equipment. Specific extinguishing methods Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. Hazchem Code 2R

Personal precautions, protective equipment and emergency procedures Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Avoid inhalation, ingestion and contact with skin and eyes. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Ensure clean-up is conducted by trained personnel only. Refer to protective measures listed in sections 7 and 8. Enviromental Precaution Do not allow contact with soil, surface or ground water. Methods and materials for containment and cleaning up Stop leak if safe to do so. Contain spillage, and then collect with non- combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). Flush away traces with water. For large spills, dike spilled material or otherwise contain material to ensure runoff does not reach a waterway.

Advice on safe handling Do not ingest. Do not breathe dust/fume/gas/mist/vapours/spray. Do not get in eyes, on skin, or on clothing. Wash hands thoroughly after handling. Use only with adequate ventilation. Conditions for safe storage Do not store near acids. Keep out of reach of children. Keep container tightly closed. Store in suitable labelled containers. Suitable material The following compatibility data is suggested based on similar product data and/or industry experience: Stainless Steel 304, Stainless Steel 316L, HDPE (high density polyethylene), MDPE, EPDM, Neoprene, Nitrile, Perfluoroelastomer, PTFE, TFE, FEP (encapsulated), Fluoroelastomer Unsuitable material The following compatibility data is suggested based on similar product data and/or industry experience: Carbon steel

Components with workplace control parameters

Exposure guidelines have not been established for this product. Available exposure limits for the substance(s) are shown below.

Components CAS-No. Form of exposure Permissible concentration Basis
Sodium Hydroxide 1310-73-2 Peak limit 2 mg/m3 AU OEL Sodium Hydroxide 1310-73-2 WES-Ceiling 2 mg/m3 NZ OEL Sodium Hydroxide 1310-73-2 Ceiling 2 mg/m3 ACGIH Ceiling 2 mg/m3 NIOSH REL TWA 2 mg/m3 OSHA Z1 Engineering measures : Effective exhaust ventilation system. Maintain air concentrations below occupational exposure standards. Personal protective equipment Eye protection Safety goggles Face-shield Hand protection Wear the following personal protective equipment: Butyl rubber Nitrile Neoprene Fluoroelastomer Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough. Skin protection Personal protective equipment comprising: suitable protective gloves, safety goggles and protective clothing Respiratory protection Refer to AS/NZS 1715 and AS/NZS 1716 for selection, use and maintenance of respiratory protective equipment as applicable. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Inorganic gas/vapour type Hygiene measures Handle in accordance with good industrial hygiene and safety practice. Remove and wash contaminated clothing before re-use. Wash face, hands and any exposed skin thoroughly after handling. Provide suitable facilities for quick drenching or flushing of the eyes and body in case of contact or splash hazard. The Personal Protective Equipment (PPE) recommendations provided above have been made in good faith based on typical expected conditions of use. PPE selection should always be completed in conjunction with a proper risk assessment and in accordance with a PPE management program.

Appearance Liquid Colour Colorless Odour None Odor Threshold No data available pH No data available Melting point/freezing point Freezing Point: 8 °C Initial boiling point and boiling range 143 °C, Method: ASTM D 86 Flash Point Not applicable Evaporation Rate No data available Flammability (solid, gas) No data available Upper/lower explosive limits No data available Autoignition temperature No data available Vapour pressure 1.5 mm Hg, (20 °C), ASTM D 323, Relative vapour density No data available Viscosity No data available Density 12.47 lb/gal Relative Density 1.48 - 1.54, (25 °C), ASTM D-1298 Water solubility Completely soluble Solubility in other solvents No data available Partition coefficient: n-octanol/water No data available Thermal decomposition No data available Viscosity, dynamic 100 mPa.s (20 °C), Method: ASTM D-2983 Viscosity, kinematic 40 mm2/s (20 °C) Molecular weight No data available VOC 0 %, 0 g/l

Reactivity No dangerous reaction known under conditions of normal use. Chemical stability Stable under normal conditions. Possibility of hazardous reactions No dangerous reaction known under conditions of normal use. Conditions to avoid None known. Incompatible materials Strong acids Hazardous decomposition products In case of fire, hazardous decomposition products may be produced such as: None known

Information on likely routes of exposure Inhalation, Eye contact, Skin contact

Potential Health Effects

Eyes Causes serious eye damage. Skin Causes severe skin burns. Ingestion Causes digestive tract burns. Inhalation May cause nose, throat, and lung irritation. Chronic Exposure Health injuries are not known or expected under normal use.

Experience with human exposure

Eyes contact Redness, Pain, Corrosion Skin contact Redness, Pain, Corrosion Ingestion Corrosion, Abdominal pain Inhalation Respiratory irritation, Cough Toxicity Product Acute oral toxicity No data available Acute inhalation toxicity No data available Acute dermal toxicity No data available Skin corrosion/irritation No data available Serious eye damage/eye irritation No data available Respiratory or skin sensitization No data available Carcinogenicity No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC. Reproductive effects No reproductive toxic effects expected. Germ cell mutagenicity Contains no ingredient listed as a mutagen Teratogenicity No data available STOT - single exposure No Data Available STOT - repeated exposure No data available Aspiration toxicity No aspiration toxicity classification

Human Hazard Characterization

Based on our hazard characterization, the potential human hazard is: High

Toxicity

Environmental Effects This product has no known ecotoxicological effects.

Product

Toxicity to fish LC50 Fathead Minnow: > 10,000 mg/l Exposure time: 48 hrs Test substance: Product LC50 Fathead Minnow: > 10,000 mg/l Exposure time: 96 hrs Test substance: Product NOEC Fathead Minnow: 10,000 mg/l Exposure time: 96 hrs Test substance: Product Toxicity to daphnia and other aquatic invertebrates LC50 Ceriodaphnia dubia: 2,332 mg/l Exposure time: 48 hrs Test substance: Product NOEC Ceriodaphnia dubia: 1,296 mg/l Exposure time: 48 hrs Test substance: Product Toxicity to algae No data available

Persistence and degradability

Greater than 95% of this product consists of inorganic substances for which a biodegradation value is not applicable.

Mobility The environmental fate was estimated using a level III fugacity model embedded in the EPI (estimation program interface) Suite TM, provided by the US EPA. The model assumes a steady state condition between the total input and output. The level III model does not require equilibrium between the defined media. The information provided is intended to give the user a general estimate of the environmental fate of this product under the defined conditions of the models. If released into the environment this material is expected to distribute to the air, water and soil/sediment in the approximate respective percentages; Air : Water : 30 - 50% Soil : 50 - 70% The portion in water is expected to be soluble or dispersible. Bioaccumulative potential This preparation or material is not expected to bioaccumulate. Other information No data available ENVIRONMENTAL HAZARD AND EXPOSURE CHARACTERIZATION Based on our hazard characterization, the potential environmental hazard is: Low

Disposal methods Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of in compliance with local regulations. Dispose of wastes in an approved waste disposal facility. Disposal considerations Dispose of as unused product. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers.

The shipper/consignor/sender is responsible to ensure that the packaging, labeling, and markings are in compliance with the selected mode of transport. Land transport Proper shipping name SODIUM HYDROXIDE SOLUTION UN/ID No. UN 1824 Transport hazard class(es) 8 Packaging group II Hazchem Code 2R

Air transport (IATA)

Proper shipping name SODIUM HYDROXIDE SOLUTION UN/ID No. UN 1824 Technical name(s) Transport hazard class(es) 8 Packaging group II

Sea transport (IMDG/IMO)

Proper shipping name SODIUM HYDROXIDE SOLUTION UN/ID No. UN 1824 Technical name(s) Transport hazard class(es) 8 Packaging group II

Standard for the Uniform Scheduling of Medicines and Poisons Schedule 6.

INTERNATIONAL CHEMICAL CONTROL LAWS :

United States TSCA Inventory On or in compliance with the active portion of the TSCA inventory Australia. Australian Industrial Chemicals Introduction Scheme (AICIS) All substances in this product comply with the Australian Industrial Chemicals Introduction Scheme (AICIS) Canadian Domestic Substances List (DSL) The substance(s) in this preparation are included in or exempted from the Domestic Substance List (DSL). Japan. ENCS - Existing and New Chemical Substances Inventory All substances in this product comply with the Law Regulating the Manufacture and Importation Of Chemical Substances and are listed on the Existing and New Chemical Substances list (ENCS).

Korea. Korean Existing Chemicals Inventory (KECI) All substances in this product comply with the Chemical Control Act (CCA) and are listed on the Existing Chemicals List (ECL) Philippines Inventory of Chemicals and Chemical Substances (PICCS) All substances in this product comply with the Republic Act 6969 (RA 6969) and are listed on the Philippines Inventory of Chemicals & Chemical Substances (PICCS).

China Inventory of Existing Chemical Substances All substances in this product comply with the Provisions on the Environmental Administration of New Chemical Substances and are listed on or exempt from the Inventory of Existing Chemical Substances China (IECSC).

New Zealand. Inventory of Chemicals (NZIoC), as published by ERMA New Zealand All substances in this product comply with the Hazardous Substances and New Organisms (HSNO) Act 1996,and are listed on or are exempt from the New Zealand Inventory of Chemicals. Taiwan Chemical Substance Inventory All substances in this product comply with the Taiwan Existing Chemical Substances Inventory (ECSI).

Other Information

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and weassume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Rx Marine International has been advised of the possibility of such damages.

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