Product Name	SODIUM HYDROXIDE FLAKES
Part Number	RXSOL-40-1318-050

Company Details:....

RX MARINE INTERNATIONAL
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Substances

Formula NaOH Molecular weight 40 g/mol CAS-No. 1310-73-2 EC-No. 215-185-5 Index-No. 011-002-00-6

Component **Classification** **Concentration** **Isovaleric aldehyde**

CAS-No. 1310-73-2 EC-No 215-185-5 Index-No. 011-002-00-6

Index-No. CAS-No. EC-No. Index-No. Met. Corr. 1; Skin Corr. 1A; Eye Dam. 1; H290, H314, H318 Concentration limits: >= 5 %: Skin Corr. 1A, H314; 2 - Corr. 1B, H314; 0,5 - %: Skin Irrit. 2, H315; 0,5 - H319; >= 0,4 %: Met. Corr. 1, H290;

For the full text of the H-Statements mentioned in this Section, see Section 16.

Classification of the substance or mixture

Corrosive to Metals, (Category 1) H290: May be corrosive to metals. Skin corrosion, (Sub-category 1A) H314: Causes severe skin burns and eye damage. Serious eye damage, (Category 1) H318: Causes serious eye damage.

Label elements

Signal Word Danger

Hazard Statements

H290 May be corrosive to metals. H314 Causes severe skin burns and eye damage.

Precautionary Statements

P234 Keep only in original packaging. P260 Do not breathe dust. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor. P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Supplemental Hazard Statements None **Other hazards** This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher. Ecological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher. Toxicological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Description of first aid measures

General advice First aiders need to protect themselves. Show this material safety data sheet to the doctor in attendance. **If inhaled** After inhalation: fresh air. Call in physician. **In case of skin contact** In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower. Call a physician immediately. **In case of eye contact** After eye contact: rinse out with plenty of water. Immediately call in ophthalmologist. Remove contact lenses. **If swallowed** After swallowing: make victim drink water (two glasses at most), avoid vomiting (risk of perforation). Call a physician immediately. Do not attempt to neutralise. **Most important symptoms and effects, both acute and delayed** The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11 **Indication of any immediate medical attention and special treatment needed** No data available

Extinguishing media

Suitable extinguishing media Water Foam Carbon dioxide (CO_2) Dry powder **Unsuitable extinguishing media** For this substance/mixture no limitations of extinguishing agents are given. **Special hazards arising from the substance or mixture** Highly flammable liquid and vapor. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. The vapor/gas is heavier than air and will spread along the ground. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Highly flammable liquid and vapor. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. The vapor/gas is heavier than air and will spread along the ground. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Highly flammable liquid and vapor. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. The vapor/gas is heavier than air and will spread along the ground. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Sodium oxides Not combustible. Ambient fire may liberate hazardous vapours. **Advice for firefighters**

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

Further information Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system. spray to keep fire-exposed containers cool.Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Personal precautions, protective equipment and emergency procedures Advice for non-emergency personnel: Avoid inhalation of dusts. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert. For personal protection see section 8. **Environmental precautions** Do not let product enter drains. **Methods and materials for containment and cleaning up** Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up dry. Dispose of properly. Clean up affected area. Avoid generation of dusts. **Reference to other sections** For disposal see section 13.

Precautions for safe handling

Advice on safe handling Work under hood. Do not inhale substance/mixture. **Hygiene measures** Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance. For precautions see section 2.2.

Conditions for safe storage, including any incompatibilities

Storage conditions

Tightly closed. Dry.

Storage class Storage class (TRGS 510): 8A: Combustible, corrosive hazardous materials **Specific end use(s)** Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

Control parameters

Ingredients with workplace control parameters

Exposure controls

Personal protective equipment

Eye/face protection Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Tightly fitting safety goggles **Skin protection** This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN 16523-1 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de). Full contact Material: Chloroprene Minimum layer thickness: 0,65 mm Break through time: 480 min Material tested:KCL 720 Camapren® This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN 16523-1 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de). Splash contact Material: Latex gloves Minimum layer thickness: 0,6 mm Break through time: 60 min Material tested:Lapren® (KCL 706 / Aldrich Z677558, Size M). **Body Protection** Flame retardant antistatic protective clothing. **Respiratory protection** Recommended Filter type: Filter A-(P3) The entrepeneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented. **Control of environmental exposure** Do not let product enter drains.

Physical state Solid **Colour** White **Odor** Odorless **Melting point/freezing point** Melting point: 318 °C **Initial boiling point and boiling range** 1.390 °C at 1.013 hPa **Flammability (solid, gas)** No data available **Upper/lower flammability or explosive limits** No data available **Flash point** Not applicable **Autoignition temperature** No data available **Decomposition temperature** No data available **pH** ca.> 14 at 100 g/l at 20 °C **materials.Extremely flammable in the presence of the following materials or conditions: oxidizing materials. Viscosity** Viscosity, kinematic: No data available Viscosity, dynamic: No data available **Water solubility** 1.090 g/l at 20 °C **Partition coefficient: n-octanol/water** Not applicable for inorganic substances **Vapor pressure** No data available **Density** 2,13 g/cm3 at 20 °C **Relative density** No data available **Relative vapor density** No data available **Particle characteristics** No data available **Explosive properties** No data available **Oxidizing properties** None **Other safety information** Dissociation constant 14,8 at 25 °C Relative vapor density 1,38 - (Air = 1.0)

Reactivity No data available **Chemical stability** The product is chemically stable under standard ambient conditions (room temperature) **Possibility of hazardous reactions** Violent reactions possible with: Acetone Chlorine Ethylene oxide Fluorine Hydrogen halides Hydrazine hydrate hydroxylamine Acid anhydrides Acrolein Acid chlorides Acids sulfuric acid Chloroform Water hydrogen peroxide anhydrides phosphides halogen-halogen compounds trichloroethene can decompose violently in contact with: Organic Substances hydrogen sulphide Risk of ignition or formation of inflammable gases or vapours with: powdered aluminium Ammonium salts persulfates Sodium borohydride phosphorus Oxides of phosphorus Halogenated hydrocarbon Light metals Metals Risk of explosion/exothermic reaction with: Bromine Calcium in powder form furfuryl alcohol Nitromethane Peroxides organic nitro compounds Nitriles Acrylic monomers Chloroform with Acetone Nitrobenzene with Methanol Nitrobenzene with salts magnesium Zinc and Tin (in the presence of atmospheric oxygen and/or moisture) **Conditions to avoid** No information available **Incompatible materials**

No data available **Hazardous decomposition products** In the event of fire: see section 5

Information on toxicological effects

Acute toxicity Symptoms: If ingested, severe burns of the mouth and throat, as well as a danger of perforation of the esophagus and the stomach. Symptoms: burns of mucous membranes, Cough, Shortness of breath, Possible damages:, damage of respiratory tract Dermal: No data available Skin corrosion/irritation Skin - Rabbit Result: Causes burns. Remarks: (Regulation (EC) No 1272/2008, Annex VI) Serious eye damage/eye irritation Eyes - Rabbit Result: Causes serious eye damage. (OECD Test Guideline 405) Remarks: (Regulation (EC) No 1272/2008, Annex VI) Remarks: Causes serious eye damage. Respiratory or skin sensitization Patch test: - In vitro study Result: negative Remarks: (ECHA) Germ cell mutagenicity No data available Carcinogenicity No data available Reproductive toxicity No data available Specific target organ toxicity - single exposure No data available Specific target organ toxicity - repeated exposure No data available Aspiration hazard No data available Additional Information Endocrine disrupting properties Product Assessment The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.burning sensation, Cough, wheezing, laryngitis, Shortness of breath, spasm, inflammation and edema of the larynx, spasm, inflammation and edema of the bronchi, pneumonitis, pulmonary edema, Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin., To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. Other dangerous properties can not be excluded. Handle in accordance with good industrial hygiene and safety practice.

Persistence and degradability No data available Toxicity to fish Static test LC50 - Oncorhynchus mykiss (rainbow trout) - 75 mg/l - 96 h (OECD Test Guideline 203) Toxicity to daphnia and other aquatic invertebrates Static test EC50 - Daphnia magna (Water flea) - 42,81 mg/l - 48 h (OECD Test Guideline 202) Remarks: (in analogy to similar products) The value is given in analogy to the following substances: maleic acid Toxicity Toxicity to fish LC50 - Pimephales promelas (fathead minnow) - 1.520 mg/l - 96 h Toxicity to bacteria EC10 - Bacteria - 14 mg/l - 72 h Remarks: (Lit.) EC5 - E.coli - 15.000 mg/l Remarks: (Lit.) (maximum permissible toxic concentration) Toxicity to algae Static test ErC50 - Pseudokirchneriella subcapitata (green algae) - 74,35 mg/l - 72 h (OECD Test Guideline 201) Remarks: (in analogy to similar products) The value is given in analogy to the following substances: maleic acid Products Biodegradation The methods for determining the biological degradability are not applicable to inorganic substances. Mobility in soil No data available Results of PBT and vPvB assessment This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher. Endocrine disrupting properties No data available Other adverse effects No data available .

Product Offer surplus and non-recyclable solutions to a licensed disposal company. Waste material must be disposed of in accordance with the Directive on waste 2008/98/EC as well as other national and local regulations. Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself. Contaminated packaging Dispose of as unused product. Waste treatment Method See www.retrologistik.com for processes regarding the return of chemicals and containers, or contact us there if you have further questions.

UN number ADR/RID:2404 IMDG:2404 IATA: 2404 UN proper shipping name ADR/RID:PROPIONITRILE IMDG:PROPIONITRILE IATA:PROPIONITRILE Transport hazard class(es) ADR/RID: 3 (6.1) IMDG: 3 (6.1) IATA:3 (6.1) Packaging group ADR/RID: II IMDG: II IATA:II Environmental hazards ADR/RID: No IMDG: No IATA: No Special precautions for user No data available Further information Not classified as dangerous in the meaning of transport regulations.

Safety, health and environmental regulations/legislation specific for the substance or mixture This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006. **Other regulations** Observe work restrictions regarding maternity protection in accordance to Dir 92/85/EEC or stricter national regulations where applicable. Take note of Dir 94/33/EC on the protection of young people at work. **Chemical Safety Assessment** For this product a chemical safety assessment was not carried out

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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