

## 1. Product and Company Identification

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

Company Details:....

RX MARINE INTERNATIONAL  
105, A wing , BSEL , TECH PARK.  
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## 2. Composition / Information on ingredients

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Pure substance/mixture : Mixture

| Chemical Name    | Cas No    | Concentration: (%) |
|------------------|-----------|--------------------|
| Sodium Hydroxide | 1310-73-2 | 30 - 60            |

## 3. Hazards Identification

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|                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|--------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Signal Word              | Danger                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Hazard Statements        | May be corrosive to metals. Causes severe skin burns and eye damage.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Precautionary statements | Prevention:<br><br>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.<br><br>Response:<br><br>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.<br><br>Storage:<br><br>Store in corrosive resistant container with a resistant inner liner. Store locked up.<br><br>Disposal:<br><br>Dispose of contents/ container to an approved waste disposal plant. |

Other hazards

None known.

## 4. First Aid Measures

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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.

## 5. Fire-fighting Measures

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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

## 6. Accidental Release Measures

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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.

Environmental 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.

## 7. Handling and Storage

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|                             |                                                                                                                                                                                                                                                                                        |
|-----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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                                                                                                                                                                   |

## 8. Exposure controls and personal protection

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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/m <sup>3</sup>       | AU OEL    |
| Sodium Hydroxide | 1310-73-2 | WES-Ceiling      | 2 mg/m <sup>3</sup>       | NZ OEL    |
| Sodium Hydroxide | 1310-73-2 | Ceiling          | 2 mg/m <sup>3</sup>       | ACGIH     |
|                  |           | Ceiling          | 2 mg/m <sup>3</sup>       | NIOSH REL |
|                  |           | TWA              | 2 mg/m <sup>3</sup>       | 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:<br><br>Butyl rubber<br><br>Nitrile<br><br>Neoprene<br><br>Fluoroelastomer<br><br>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

## 9. Physical and chemical properties

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|                                         |                                        |
|-----------------------------------------|----------------------------------------|
| 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 mm <sup>2</sup> /s (20 °C)          |
| Molecular weight                        | No data available                      |
| VOC                                     | 0 %, 0 g/l                             |

## 10. Stability and reactivity

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|                                    |                                                                                       |
|------------------------------------|---------------------------------------------------------------------------------------|
| 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 |

## 11. Toxicological information

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|                                          |                                       |
|------------------------------------------|---------------------------------------|
| 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 |                                                                                                                                                         |

## 12. Ecological information

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|                       |                                                     |
|-----------------------|-----------------------------------------------------|
| 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                  |

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Exposure time: 96 hrs

Test substance: Product

NOEC Fathead Minnow: 10,000 mg/l

Exposure time: 96 hrs

Test substance: Product

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

No data available

Toxicity to daphnia and other aquatic invertebrates

Toxicity to algae

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 :