SAFETY DATA SHEET
SODIUM HYDROXIDE 30% W/W

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SODIUM HYDROXIDE 30% W/W

Environmental
Due to the alkalinity of the product it may produce a local pH change in water systems which can have a damaging effect on aquatic organisms. Discharge to soil may produce a local pH change which can have a damaging effect on crops and soil dwelling organisms.

Physicochemical
Strongly alkaline solution. Very corrosive to skin and eyes. Will corrode metal surfaces on sustained or repeated contact. May produce an exothermic reaction with acids.

2.2. Label elements

Pictogram

Signal word
Danger

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

Precautionary statements
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/ shower.
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.
P501 Dispose of contents/ container in accordance with national regulations.

Contains
SODIUM HYDROXIDE

Supplementary precautionary statements
P234 Keep only in original container.
P260 Do not breathe vapour/ spray.
P264 Wash contaminated skin thoroughly after handling.
P301+P330+P311 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P321 Specific treatment (see medical advice on this label).
P363 Wash contaminated clothing before reuse.
P390 Absorb spillage to prevent material damage.
P405 Store locked up.
P406 Store in corrosive resistant container with a resistant inner liner.

2.3. Other hazards
This product does not contain any substances classified as PBT or vPvB.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

<table>
<thead>
<tr>
<th>SODIUM HYDROXIDE</th>
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<tr>
<td>CAS number: 1310-73-2</td>
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<td>REACH registration number: 01-2119457892-27-0000</td>
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Classification
Skin Corr. 1A - H314
Eye Dam. 1 - H318

Classification (67/548/EEC or 1999/45/EC)
C;R35

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

Composition comments
An aqueous sodium hydroxide mixture.
SODIUM HYDROXIDE 30% W/W

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

CAUTION! First aid personnel must be aware of own risk during rescue! First aid personnel must protect themselves with all necessary personal protective equipment during the assistance of casualties. Always consider any dangers in the vicinity before approaching to treat the casualty. When breathing is difficult, properly trained personnel may assist the casualty by administering oxygen. Check airway for any blockages. If breathing has stopped perform CPR. Place unconscious person on the side in the recovery position and ensure breathing can take place. Never give anything by mouth to an unconscious person. If medical assistance is needed take as much detail as possible about the incident and hazardous materials involved with the casualty.

Inhalation

Remove affected person from source of contamination. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. In case of severe exposure or if casualty feels unwell, obtain medical attention.

Ingestion

Do not induce vomiting. Rinse mouth thoroughly with water. Get medical attention immediately.

Skin contact

Remove contaminated clothing and wash before re-use. Wash the skin with copious amounts of water. If clothing is difficult to remove or stuck to the skin then leave in place and flush affected area with water. Get medical attention immediately.

Eye contact

May cause permanent damage if eye is not immediately irrigated. Promptly wash eyes with plenty of water or eye wash solution while lifting the eyelids. If possible remove any contact lenses and continue to wash. Get medical attention immediately. Continue to rinse.

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

General information

The severity of the symptoms described will vary dependent on the concentration and the length of exposure.

Inhalation

Acute: Coughing. Irritation of the respiratory system. Delayed: Can cause pulmonary edemas. Prolonged exposure to vapours or mists can cause damage to the mucous membranes of the respiratory system. Burns to the respiratory system may occur after exposure to high concentrations of vapours or mists.

Ingestion

Acute: Burns in the mouth, throat, stomach and gastrointestinal tract. Risk of perforation. Delayed: Scarring of the digestive system with possible blockages due to internal damage. Coma and death can occur following severe exposure.

Skin contact

Acute: Chemical burns. Delayed: Scarring of the skin.

Eye contact

Acute: Severe burns. Delayed: Permanent eye damage. Possible blindness.

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

Notes for the doctor

Have eye wash facilities in place close to the operators’ work area to provide immediate first aid prior to medical attention. All cases of exposure require immediate medical attention.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

The product is non-combustible. Use fire-extinguishing media suitable for the surrounding fire. Small fires: Foam, carbon dioxide or dry powder. Large fires: Dry powder, foam or water spray/mist.

Unsuitable extinguishing media

Do not use water jet as this can spread the fire. Do not use carbon dioxide in enclosed spaces with insufficient ventilation.

5.2. Special hazards arising from the substance or mixture
SODIUM HYDROXIDE 30% W/W

**Specific hazards**
Corrosive liquid. Sodium hydroxide mists or vapours will be formed. Contact with metals may form hydrogen gas which is flammable and can result in explosion. Containers of flammable liquids in the area of the fire can explode upon heating.

**Hazardous combustion products**
The product is not combustible but may decompose in the event of a fire. Thermal decomposition or combustion products may include the following substances: Corrosive gases or vapours. Sodium hydroxide. When the water component has evaporated there is a possibility that sodium oxides may be formed during fire.

**5.3. Advice for firefighters**

**Protective actions during firefighting**
Prevent run-off from entering drains and watercourses. Be aware of dangers from other hazardous substances in the immediate area. Use water spray to cool unopened containers. Evacuate and keep non-emergency personnel away from the fire area until it is properly extinguished with no danger of re-ignition.

**Special protective equipment for firefighters**
Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

SECTION 6: Accidental release measures

**6.1. Personal precautions, protective equipment and emergency procedures**

**Personal precautions**
Wear protective clothing as described in Section 8 of this safety data sheet. Avoid ingestion, inhalation of vapours and contact with skin and eyes. Have emergency procedures in place for treating spillages, evacuating the area and informing the emergency services if necessary. Restrict access to the area until the spillage is treated, if large amounts of vapours are produced that will be hazardous to others, evacuate the area. When any other effects of spillages will affect the safety of others the area should be evacuated.

**6.2. Environmental precautions**
Avoid unauthorised discharge to the environment. Do not discharge into drains or watercourses or onto the ground. Large spillages or uncontrolled discharge to water systems must be alerted to the Environmental Agency or other regulatory body. If spillages to land cannot be treated safely or if contamination will occur the Environment Agency must be alerted immediately. If the substance has entered a foul drain or sewage system in significant quantity to cause a hazard the local Water Treatment Company must be informed. Clean up any spillages immediately, prevent material from spreading and entering drains or sewage systems.

**6.3. Methods and material for containment and cleaning up**

**Methods for cleaning up**
Any chemical absorbents used must be compatible with the components of the mixture. Small Spillages: Absorb spillage with sand or other inert absorbent. Large Spillages: Dam and absorb spillages with sand, earth or other inert material. Fit drain covers where they are available if the spillage is likely to enter the drainage system. Collect and place in suitable waste disposal containers and seal securely. For waste disposal, see Section 13. Containers with collected spillage must be properly labelled with correct contents and hazard symbol. Flush contaminated area with plenty of water. Take care as floors and other surfaces may become slippery. Ventilate area and allow to dry before allowing access.

**6.4. Reference to other sections**
Refer to sections 8 and 13 for additional information.

SECTION 7: Handling and storage

**7.1. Precautions for safe handling**
SODIUM HYDROXIDE 30% W/W

Usage precautions
Avoid spilling. Avoid contact with skin and eyes. Avoid inhalation of vapours and spray/mists.
Avoid ingestion of the product. Do not eat, drink or smoke when handling. Ensure emergency
procedures are in place to treat spillages and cope with other situations such as evacuation.
Do not use in areas close to drainage systems unless measures are in place to prevent
access of product. Wash at the end of each work shift, before eating, drinking, smoking and
using the toilet. Remove contaminated clothing/footwear/equipment before entering eating
areas or other places that would expose others to the substance. Do not mix with
incompatible substances or mixtures. Do not dispose of the substance to the environment
through unauthorised means. Do not discharge to land or water including the drainage
system.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions
Store in closed original container at temperatures between 15°C and 25°C. Store away from
heat, direct sunlight and moisture. Store away from incompatible materials. It is advisable to
store in a bunded area or use other protective measures such as a sump pallet or storage
tray. Store in a stable situation to avoid spillages. Avoid freezing conditions. If the mixture is
transferred to another container then this should be made of a compatible material. Consult
with the packaging manufacturer about suitability. Do not store in containers made of
aluminium or other light metals.

Storage class
Corrosive storage.

7.3. Specific end use(s)

Specific end use(s)
The identified uses for this product are detailed in Section 1.2.

Usage description
Use product under conditions described in this datasheet. Avoid exposure of operators and
others who may be affected by its use. Avoid overuse of the product which would create
waste and potential spillages. Always use recommended personal protective equipment. Only
use the product for its intended use in a safe manner, do not use for other purposes.

SECTION 8: Exposure Controls/personal protection

8.1. Control parameters

Occupational exposure limits
SODIUM HYDROXIDE
Short-term exposure limit (15-minute): WEL  2 mg/m³
WEL = Workplace Exposure Limit

Biological limit values
No information available, No information available, No information available No information
has been received from the manufacturers of the substance.

DNEL
Industry - Inhalation; Long term local effects: 1 mg/m³
Refers to sodium hydroxide as a substance.
Consumer - Inhalation; Long term local effects: 1 mg/m³

PNEC
No information available for PNEC of constituents.

SODIUM HYDROXIDE (CAS: 1310-73-2)

DNEL
Workers - Inhalation; Long term local effects: 1 mg/m³
General population - Inhalation; Long term local effects: 1 mg/m³

8.2. Exposure controls

Appropriate engineering controls
Provide adequate general and local exhaust ventilation. If vapours or mists are generated,
work in a fume cupboard.

Eye/face protection
Wear approved chemical safety goggles conforming to EN 166.
SODIUM HYDROXIDE 30% W/W

Hand protection
Use full length gloves. Polyvinyl chloride (PVC). Viton rubber (fluoro rubber). Butyl rubber. Nitrile rubber. The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material. For gloves involving total immersion 1.0mm thickness (if available) are recommended, at least 0.5mm and breakthrough time of >480 minutes. For splash resistance use minimum 0.5mm thickness and breakthrough time > 240 minutes. Gloves should have a breakthrough time sufficient for the amount of handling but allow dexterity for safe movement and handling. Gloves should conform to EN 374 (Chemical and Micro-organisms hazards). It should be noted that liquid may penetrate the gloves. Frequent changes are recommended. When removing used gloves apply proper technique by avoiding skin contact with the outer surface. When packages of the product are being handled during storage or transport it is advisable to wear protective gloves to prevent damage to the skin.

Other skin and body protection
Wear suitable protective clothing during transport, handling and storage operations connected with the product. Protective clothing should conform to the general requirements of EN 340:2003. Also consider EN 13034:2005; EN 14605:2005; EN 943:2002 dependent upon the situation resulting in exposure. Wear suitable protective footwear during handling of the product. When treating spillages it is recommended to wear protective boots, consult with the supplier as to the compatibility. Safety footwear should conform to standards EN 344 - 347. Wear plastic apron and full length gloves if handling large amounts. If there is a risk of splashing then wear a face shield. Have facilities in place to wash eyes in case of contact. If handling large amounts it is recommended to have a safety shower.

Hygiene measures
If clothing becomes contaminated with large amounts or would otherwise result in exposure to the mixture, remove and wash before re-use. Do not eat, drink or smoke in the work area. Wash at the end of each work shift and before eating, smoking and using the toilet.

Respiratory protection
Wear suitable respiratory protection when vapours or mists are generated and there is inadequate ventilation or extraction. When the concentration of atmospheric vapours is sufficient to cause skin irritation it is advisable to wear full face respiratory protection. Use respirator fitted with cartridge suitable for inorganic vapours including the substance of concern, type B is recommended. When a particulate respirator is used it is recommended to use at least Type P2, preferably P3. Consult with the supplier as to the compatibility of the equipment with the chemical of concern. CAUTION: Air purifying respirators do not protect the user in oxygen deficient atmospheres, use air supplied system. Respiratory protection should conform to the following standards. BS EN 136: Full face masks. BS EN 140: Half-face masks. BS EN 143: Particulates. Powered air respirators should meet requirements of EN146 and EN12941. Airline fed respirators should meet the requirements of EN 270 and EN1835. Respiratory protection should be maintained in a proper condition and inspected at the frequency specified by current legislation.

Environmental exposure controls
See section 6 for details.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties
Appearance
Liquid.
Colour
Colourless.
Odour
Odourless.
Odour threshold
Not applicable. Not applicable.
\( \text{pH} \)
\( \text{pH (concentrated solution): 14} \)
Flash point
Not relevant.
Evaporation rate
Not determined.
SODIUM HYDROXIDE 30% W/W

Evaporation factor Not determined.

Flammability (solid, gas) No.

Upper/lower flammability or explosive limits Not relevant. The mixture is non-flammable. The mixture is non-flammable.

Vapour pressure Not determined.

Vapour density Not determined.

Relative density 1.33 @ 20 @ °C

Bulk density Not applicable. Only applicable to solids.

Solubility(ies) Not applicable. Miscible with water. The product is completely miscible with water.

Partition coefficient Not determined.

Auto-ignition temperature Not relevant.

Decomposition Temperature Not determined.

Viscosity Not determined.

Explosive properties The mixture itself is not explosive but can produce hydrogen gas on reaction with metals which is explosive. More sensitive to shock than m-dinitrobenzene: No. More sensitive to friction than m-dinitrobenzene: No.

Explosive under the influence of a flame No

Oxidising properties Not applicable.

9.2. Other information Not available. Not determined.

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity Exothermic and possible violent reaction with concentrated acids and organic halogen compounds. Possible exothermic reaction with dilute acid solutions. Flammable hydrogen gas is produced on reaction with light metals. Aluminium Zinc Tin and tin oxides.

10.2. Chemical stability

Stability Air sensitive. Will form carbonates on reaction with atmospheric carbon dioxide. Stable when stored in sealed container at normal temperatures and in a suitable location.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions Hazardous reactions as specified in section 10.1. Heat and gaseous products may be formed that would build up pressure in a sealed container, do not mix with incompatible materials. Will not polymerise.

10.4. Conditions to avoid

Conditions to avoid Avoid heat, direct sunlight and moisture. Avoid contact with acids. Avoid storage in freezing conditions. Avoid storage with incompatible materials. Avoid exposure to the atmosphere, product is air sensitive. Avoid storage in an unstable manner or in a situation that would result in exposure to the product. Avoid storage near to unprotected drainage systems. It is advisable to store the product within some form of containment to prevent spillages reaching drainage systems.

10.5. Incompatible materials
SODIUM HYDROXIDE 30% W/W

Materials to avoid
Aluminium, zinc, tin (formation of hydrogen). Acids. Halogenated organic compounds
Incompatible packaging materials, the mixture will attack some metals and plastics. Consult
with the supplier as to suitability.

10.6. Hazardous decomposition products
Hazardous decomposition products
Does not decompose when used and stored as recommended. See section 5 for hazardous
combustion products.

SECTION 11: Toxicological information

11.1. Information on toxicological effects
Toxicological effects
The mixture has not been tested for toxicological properties. Information on toxicological
properties has not been received from the manufacturer or supplier.

Acute toxicity - oral
Notes (oral LD₅₀)
No information available. No reliable information.

Acute toxicity - dermal
Notes (dermal LD₅₀)
No information available. No reliable information.

Acute toxicity - inhalation
Notes (inhalation LC₅₀)
No information available. No reliable information.

Skin corrosion/irritation
Animal data
Dose: 0.5ml of 5% w/v solution, 2 hr, Rabbit Primary dermal irritation index: 4.33 after 1 hour
to 3.1 after 7 days. Erythema/eschar score: 2.6 at 24 hours Oedema score: 1.5 at 24 hours
Tests on rabbits for up to 8 days showed the solution to be irritating. At or above 5% w/w
sodium hydroxide is classed as corrosive to skin causing severe burns. OECD Guideline 404
(Acute Dermal Irritation / Corrosion) Corrosive to skin.

Serious eye damage/irritation
Serious eye damage/irritation
Below 2%w/w solutions are irritating. At or above 2% w/w they are corrosive. Tests on rabbits,
OECD Guideline 405, Acute eye Irritation / Corrosion.

Skin sensitisation
Skin sensitisation
Patch test - Human: Industry - Dermal; Long term systemic effects 22 mg/kg/day Not
sensitising.

Germ cell mutagenicity
Genotoxicity - in vitro
Gene mutation:: Negative. No reliable information. Despite information being unreliable the
results from all tests were negative for genotoxicity.

Genotoxicity - in vivo
Chromosome aberration: Negative. Result obtained for micronucleus assay on mouse
showed negative results. Chromosome aberration on grasshoppers showed some positive
results. Information is unreliable but the majority of test results are negative.

Carcinogenicity
Carcinogenicity
Scientifically unjustified.

Reproductive toxicity
Reproductive toxicity - fertility
No information available. No supplied or registered information.

Reproductive toxicity - development
Fetotoxicity: - Dose level:: 2 microlitre doses of 0.001M NaOH Industry - Dermal; Long term
systemic effects 22 mg/kg/day, , Mouse Unreliable information. 2 microlitre doses of 0.001 M
sodium hydroxide produced mortality in approx. 46% of fetuses.

Specific target organ toxicity - single exposure
STOT - single exposure
No information available.
SODIUM HYDROXIDE 30% W/W

**Specific target organ toxicity - repeated exposure**

**STOT - repeated exposure** No information available. Unreliable information.

**Inhalation** Irritation of the respiratory system. Coughing and difficulties in breathing. Headache. Burns to mucous membranes. May cause pulmonary edema, bronchitis or pneumonitis.

**Ingestion** Chemical burns to the mouth, oesophagus and stomach. Stomach pain and vomiting. May cause severe internal injury.

**Skin contact** Causes severe burns. Delayed effects may be scarring of the skin.

**Eye contact** This product is strongly corrosive. Causes severe burns. Immediate first aid is imperative. Risk of serious damage to eyes. Lacrimation. Delayed effects can be conjunctivitis, cataracts and glaucoma. Possible blindness.

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**SECTION 12: Ecological Information**

**Ecotoxicity** Although not classified as environmentally hazardous, harmful effects cannot be excluded in the event of improper handling or disposal. There is a possibility that the mixture could produce a local alkaline pH shift in the aquatic environment. Do not allow to enter drinking water, waste water or soil.

**12.1. Toxicity**

**Toxicity** The acute effects on fish are the damaging effect on fins due the increase in alkalinity. As pH increases above 9 the mortality rate increases. Outside the range of pH6.5 to 9.0 freshwater fish suffer adverse physiological effects increasing in severity until lethality is reached. Marine life suffers outside pH 6.5 to 8.5 due to the larger buffering capacity of salt water producing a more stable pH and a reduced tolerance to pH change.

**Acute toxicity - fish** Industry - Dermal; Long term systemic effects 22 mg/kg/day

LC50, 96 hours: < 180 mg/l, Cyprinus carpio (Common carp)

This was a study on mortality.

Unreliable information.

**Acute toxicity - aquatic invertebrates** EC₅₀, 48 hours: 40.4 mg/l, Industry - Dermal; Long term systemic effects 22 mg/kg/day

Species: Ceriodaphnia sp.

Immobility

**Acute toxicity - aquatic plants** Scientifically unjustified.

**Acute toxicity - microorganisms** Not available.

**Acute toxicity - terrestrial** Not available.

No supplied or registered information

**Chronic toxicity - fish early life stage** Not available.

The registered information is unreliable. Semi-static, freshwater tests on guppies showed adverse effects on survival rate and growth. 25 to 100 mg/l produced significant changes in the biology of the fish.

**Short term toxicity - embryo and sac fry stages** Not available.

**Chronic toxicity - aquatic invertebrates** Scientifically unjustified.

**Toxicity to soil** No registered or supplied information.

**Toxicity to terrestrial plants** No registered or supplied information.
SODIUM HYDROXIDE 30% W/W

12.2. Persistence and degradability

Phototransformation Not relevant.
Water - Industry - Dermal; Long term systemic effects 22 mg/kg/day:

Stability (hydrolysis) Scientifically unjustified.
When dissolved in water, sodium hydroxide dissociates to form hydroxide ions. This dissociation is reduced as the pH increases.

Biodegradation Scientifically unjustified.

Biological oxygen demand No information available. No supplied or registered information

Chemical oxygen demand No information available. No supplied or registered information

12.3. Bioaccumulative potential

Bioaccumulative potential Scientifically unjustified. Due to its high water solubility, sodium hydroxide is not expected to bioaccumulate. It is an inorganic compound.

Partition coefficient Not determined.

12.4. Mobility in soil

Mobility Sodium hydroxide is present in the environment as sodium and hydroxyl ions. The product is miscible with water and will spread in water systems. It will be absorbed into soil with the possibility of travelling into groundwater when large or continuous discharges occur. Sodium hydroxide solutions will penetrate further into the soil as dilution increases. Some ion exchange will occur, sodium will become part of the naturally occurring sodium in the environment. There is the possibility that some hydroxide will remain in solution and travel towards groundwater.

Adsorption/desorption coefficient Scientifically unjustified.

Henry's law constant Not available. No supplied or registered information

Surface tension Not available. No supplied or registered information

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment This product does not contain any substances classified as PBT or vPvB.

12.6. Other adverse effects

Other adverse effects May create a local pH change in soil which can have a damaging effect on crops. Discharge into a foul drain can be a hazard to operators working on the system. Will affect drinking water supplies.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information Any waste material is classed as hazardous waste, it should only be disposed of through licenced waste handlers and treatment sites. Do not allow unauthorised disposal to the environment. If operators are exposed to vapours during the disposal process then suitable respiratory protection should be worn. All other personal protective equipment as described in section 8 should be worn.
SODIUM HYDROXIDE 30% W/W

Disposal methods
Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority. Avoid unauthorised disposal. Do not dump illegally onto land or into water. Uncleaned empty containers should be treated as hazardous waste. Waste material should not be disposed of directly to drain. Neutralisation is recommended before disposal, this should be carried out by a reputable waste disposal company. IF WASTE IS NEUTRALISED ON SITE BE AWARE THAT A VIGOROUS AND EXOTHERMIC REACTION MAY OCCUR. When dealing with waste always consider the waste management hierarchy of Prevention, Preparation for re-use, Recycling, Recovery and Disposal. It is advisable to minimise waste at source if possible, then re-use, recover or recycle wherever possible before considering waste disposal options.

SECTION 14: Transport information

14.1. UN number
UN No. (ADR/RID) 1824
UN No. (IMDG) 1824
UN No. (ICAO) 1824

14.2. UN proper shipping name
Proper shipping name (ADR/RID) SODIUM HYDROXIDE SOLUTION
Proper shipping name (IMDG) SODIUM HYDROXIDE SOLUTION
Proper shipping name (ICAO) SODIUM HYDROXIDE SOLUTION

14.3. Transport hazard class(es)
ADR/RID class 8
ADR/RID label 8
IMDG class 8
ICAO class/division 8

14.4. Packing group
ADR/RID packing group II
IMDG packing group II
ICAO packing group II

14.5. Environmental hazards
Environmentally hazardous substance/marine pollutant No.

14.6. Special precautions for use
EmS F-A, S-B
Emergency Action Code 2R
SODIUM HYDROXIDE 30% W/W

Hazard Identification Number (ADR/RID) 80
Tunnel restriction code (E)

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture
National regulations
Control of Substances Hazardous to Health Regulations 2002 (as amended).

EU legislation

Guidance
Workplace Exposure Limits EH40.
Approved Classification and Labelling Guide (CHIP 4)
ECHA Guidance on the Compilation of Safety Data Sheets, September 2011.

15.2. Chemical safety assessment
A chemical safety assessment has not been carried out on the mixture. Information from the manufacturer of the raw material has not been received regarding Chemical Safety Assessments, Exposure Scenarios or a Chemical Safety Report.

SECTION 16: Other information

General information
Under REACH Material Safety Datasheets (MSDS) are referred to as Safety Datasheets (SDS). This datasheet is not intended to be a replacement for a full risk assessment, these should always be carried out by competent persons.

Key literature references and sources for data
Raw material safety data sheets. ECHA website.

Revision comments
General rewrite

Revision date 29/04/2016
Revision 4
Supersedes date 29/04/2016
SDS number 10192
Risk phrases in full R35 Causes severe burns.
Hazard statements in full H290 May be corrosive to metals.
H314 Causes severe skin burns and eye damage.
H318 Causes serious eye damage.