 **Safety Data Sheet**

 Caustic Soda 50% Rev. Date: 01/21/2021

**1. PRODUCT AND COMPANY IDENTIFICATION**

**Product identifier:** Sodium Hydroxide 50%

**Other means of identification**: Caustic Soda 50%

**Recommended use:**  ALL PROPER AND LEGAL PURPOSES

**Recommended restrictions:** None known.

**Manufacturer/Importer/Supplier/Distributor information**

**Manufacturer:** Meitler Consulting, Inc.

 16979 Chieftain Road

 Tonganoxie, KS 66086

**For More Information Call:** 913-422-9339 (Monday-Friday 8:00am-5:00pm)

**For Emergency Call:** CHEMTREC- 800-424-9300

**2. HAZARDS IDENTIFICATION**

**Physical Hazards:** Not classified

**Health Hazards:** Skin corrosion/irritation Category 1

 Serious eye damage/eye irritation Category 1

 Specific target organ toxicity, single exposure Category 3 respiratory tract infection

**Environmental Hazards:** Not classified

**OSHA defined hazards:** Not classified.

**Signal Words:** DANGER

**Label elements:**

 

**Hazard Statement:** Causes severe skin burns and eye damage. Causes serious eye damage. May cause respiratory irritation.

**Precautionary Statements**

 **Prevention:** Do not breathe mist vapors. Wash thoroughly after handling. Use only outdoors or in a well-ventilated area. Wear protective gloves/protective clothing/eye protection/face protection.

 **Response:** If swallowed: Rinse mouth. Do not induce vomiting. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If inhaled: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center/doctor. Wash contaminated clothing before reuse.

 **Storage:** Store in a well-ventilated place. Keep container tightly closed. Store locked up.

 **Disposal:** Dispose of contents/container in accordance with local/regional/national/international regulations.

**Hazard not otherwise**

**Classified (HNOC):** None Known

**Supplemental information:** 50% of the mixture consists of component(s) of unknown acute oral toxicity. 50% of the mixture consists of component(s) of unknown acute inhalation toxicity.

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

**Mixtures**

|  |  |  |  |
| --- | --- | --- | --- |
| **Chemical Name** | **Common Name and Synonyms** | **CAS Number** | **%** |
| SODIUM HYDROXIDE (NA(OH)) |  | 1310-73-2 | 50 |
| Other components below reportable levels |  |  | 50 |

**4. FIRST AID MEASURES**

**Inhalation:** Remove victim to fresh air and rest in a comfortable position for breathing. Call a poison center or doctor/physician if you feel unwell.

**Skin contact:** Take off immediately all contaminated clothing. Rinse skin with water/shower. Call a physician or poison control center immediately. Chemical burns must be treated by a physician. Wash contaminated clothing before reuse.

**Eye contact:** Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician or poison control center immediately.

**Ingestion:** Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content does not get into the lungs.

**Most important** Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms

**symptoms/effects,** may include stinging, tearing, redness, swelling and blurred vision. Permanent eye

**acute and delayed.** damage including blindness could result. May cause respiratory **i**rritation.

**Indication of immediate** Provide general supportive measures and treat symptomatically. Chemical burns: Flush

**Medical attention and** with water immediately. While flushing, remove clothes which do not adhere to affected.

**special treatment** area. Call an ambulance. Continue flushing during transport to hospital. Keep victim under

**needed** observation. Symptoms may be delayed.

**General information** If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

**5. FIRE-FIGHTING MEASURES**

**Suitable extinguishing media** Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).

**Unsuitable extinguishing media** Do not use water jet as an extinguisher, as this will spread the fire.

**Specific hazards arising from the** During fire, gases hazardous to health may be formed.

**Chemical**

**Special protective equipment and** Self-contained breathing apparatus and full protective clothing must be

**Precautions for firefighters** worn in case of fire.

**Firefighting equipment/instructions** Move containers from fire area if you can do so without risk.

**Specific methods**  Use standard firefighting procedures and consider the hazards of other involved materials.

**General fire hazards** No unusual fire or explosion hazards noted.

**6. ACCIDENTAL RELEASE MEASURES**

**Personal precautions, protective** Keep unnecessary personnel away. Keep people away from and upwind

**Equipment and emergency** of spill/leak.Wear appropriate protective equipment and clothing during

**Procedures** Clean-up. Do not breathe mist/vapors. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

**Methods and materials for containment** Large Spills: Stop the flow of material, if this is without risk. Dike the **And cleaning up** spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area water.

 Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

 Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.

**Environmental precautions** Avoid discharge into drains, water courses or onto the ground.

**7. HANDLING AND STORAGE**

**Precautions for safe handling** Do not breathe mist/vapors. Do not get in eyes, on skin, or on clothing. Avoid prolonged exposure. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

**Conditions for safe storage,** Store locked up. Store in tightly closed container. Store away from

**including any compatibilities**. Incompatible materials (see Section 10 of the SDS).

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Occupational exposure controls**

**US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 19 10.1000)**

|  |  |  |
| --- | --- | --- |
| **Components** | **Type** | **Value** |
| SODIUM HYDROXIDE (NA (OH)) (CAS 1310-73-2) | PEL | 2mg/m3 |

**US. ACGIH Threshold Limit Values**

|  |  |  |
| --- | --- | --- |
| **Components** | **Type** | **Value** |
| SODIUM HYDROXIDE (NA (OH)) (CAS 1310-73-2) | PEL | 2mg/m3 |

**US NIOSH: Pocket Guide to Chemical Hazards**

|  |  |  |
| --- | --- | --- |
| **Components** | **Type** | **Value** |
| SODIUM HYDROXIDE (NA (OH)) (CAS 1310-73-2) | PEL | 2mg/m3 |

**Biological limit values** No biological exposure limits noted for the ingredient(s).

**Appropriate engineering** Good general ventilation should be used. Ventilation rate should be matched to

**Controls** conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.

**Individual protection measures, such as personal protective equipment**

The following are recommendations for Personnel Protective Equipment (PPE). The employer/user of this product must perform a Hazard Assessment of the workplace according to OSHA regulations 29 CFR 1910.132 to determine the appropriate PPE for use while performing any task involving potential exposure to this product.

**Eye/face protection** Chemical respirator with organic vapor cartridge and full-face piece.

**Skin/Hand Protection** Wear appropriate chemical resistant gloves.

**Other**  Wear appropriate chemical resistant gloves.

**Respiratory protection** Chemical respirator with organic vapor cartridge and full-face piece.

**Thermal hazards**  Wear appropriate thermal protective clothing, when necessary.

**General hygiene considerations** Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminates.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

**Appearance**

 **Physical state**  Liquid

 **Form**  Liquid

 **Color**  Colorless to slightly colored

**Odor**  Odorless

**Odor threshold** Not available

**pH** Not Available

**Melting/freezing point**  58 F (14.44 C)

**Initial boiling point/range** 1371.2 F (744 C) estimated

**Flash point** Not available

**Evaporation rate**  Not available

**Flammability (solid, gas)** Not applicable

**Upper/lower flammability or explosive limits**

 **Flammability limit lower** Not available

 **(%)**

 **Flammability – upper** Not available

 **(%)**

 **Explosive limit – lower (%)** Not available

 **Explosive limit – upper (%)** Not available

**Vapor pressure** Not available

**Vapor density** Not available

**Relative density** Not available

**Solubility(ies)**

 **Solubility (water)** Not available

**Partition coefficient** Not available

**(n-octanol/water)**

**Auto-ignition temperature** Not available

**Decomposition temperature** Not available

**Viscosity**  Not available

**Other information**

 **Density**  12.76 lbs/gal

 1.53 g/ml

 **Explosive properties** Not explosive

 **Oxidizing properties** Not oxidizing.

 **Percent volatile** 50% estimate

 **Specific gravity** 1.53

**10. STABILITY AND REACTIVITY**

**Reactivity** The product is stable and non-reactive under normal conditions of use, storage, and transport.

**Chemical stability** Material is stable under normal conditions.

**Possibility of hazardous** Hazardous polymerization does not occur.

**Reactions**

**Conditions to avoid** Contact with incompatible materials.

**Incompatible materials** Strong acids.

**Hazardous decomposition** No hazardous decomposition products are known.

**products**

**11. TOXICOLOGICAL INFORMATION**

**Information on likely routes of exposure**

 **Inhalation** May cause irritation to the respiratory system. Prolonged inhalation may be harmful.

 **Skin Contact** Causes severe skin burns

 **Eye contact** Causes serious eye damage

 **Ingestion** Causes digestive tract burns

**Symptoms related to the** Burning pain and severe corrosive skin damage. Causes serious eye damage.

**physical, chemical and** Symptoms may include stinging, tearing, redness, swelling, and blurred vision.

**toxicological characteristics** Permanent eye damage including blindness could result. May cause respiratory irritation.

**Information on toxicological effects**

**Acute Toxicity** Not known

**Skin coorosion/irritation** Causes severe skin burns and eye damage.

**Serious eye damage/eye** Causes serious eye damage.

**Irritation**

**Respiratory or skin sensitization**

 **Respiratory sensitization** Due to partial or complete lack of data the classification is not possible.

 **Skin sensitization** Due to partial or complete lack of data the classification is not possible.

**Germ cell mutagenicity** Due to partial or complete lack of data the classification is not possible.

**Carcinogenicity** Due to partial or complete lack of data the classification is not possible.

 **IARC Monographs. Overall Evaluation of Carcinogenicity**

 Not listed.

 **OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)**

 Not listed.

 **US. National Toxicology Program (NTP) Report on Carcinogens**

 Not listed.

**Reproductive toxicity** Due to partial or complete lack of data the classification is not possible.

**Specific target organ toxicity –** May cause respiratory irritation.

**Single exposure**

**Specific target organ toxicity-** Due to partial or complete lack of data the classification is not possible.

**Repeated exposure**

**Aspiration hazard** Due to partial or complete lack of data the classification is not possible.

**Chronic effects** Prolonged inhalation may be harmful.

 **12. ECOLOGICAL INFORMATION**

**Ecotoxicity** the product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

|  |  |  |
| --- | --- | --- |
| **Components** | **Species** | **Test Results** |
| Crustacea EC50 | Water flea (Ceriodaphnia dubia) | 34.59-47.13 mg/l, 48hours |
| Fish LC50 | Western mosquitofish (Gambusia addnis) | 125 mg/l, 96 hours |

SODIUM HYDROXIDE (NA(OH)) (CAS 1310-73-2)

**Persistence and degradability** No data is available on the degradability of this product.

**Bio accumulative potential** No data available

**Mobility in soil**  No data available

**Other adverse effects** Not other adverse environmental effects (e.g., ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

**13. DISPOSAL CONSIDERATIONS**

**Disposal instructions** Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Incinerate the material under controlled conditions in an approved incinerator. Dispose of contents/container in accordance with local/regional/national/international regulations.

**Local disposal regulations** Dispose in accordance with all applicable regulations.

**Hazardous waste code**  D002: Waste Corrosive material [pH <=2 or =>12.5, or corrosive to steel] The waste code should be assigned in discussion between the user, the producer, and the waste disposal company.

**Waste from residues/unused products** Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

**Contaminated packaging**  Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to approved waste handling site for recycling or disposal.

**14. TRANSPORT INFORMATION**

**DOT**

 **UN number** UN1824

 **UN proper shipping name** SODIUM HYDROXIDE SOLUTION DOT-SP 12412

 **Transport hazard class(es)**

 **Class** 8

 **Subsidary risk -**

 **Packing group** ll

 **Special precautions for user** Read safety instructions, SDS and emergency procedures before handling.

 **ERG number** 154

Transport information on packaging may be different from that listed.



**15. REGULATORY INFORMATION**

**US federal regulations** This product is a “Hazardous Chemical” as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

 **Toxic Substances Control Act (TSCA)**

 **TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**

 Not regulated.

 **CERCLA Hazardous Substance List (40 CFR 302.4)**

 SODIUM HYDROXIDE (NA(OH)) (CAS 1310-73-2) Listed.

 **SARA 304 Emergency release notification**

 Not regulated

 **OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)**

 Not listed

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

 **SARA 302 Extremely hazardous substance**

 Not listed

 **SARA 311/312 Hazardous chemical** Yes

 **Classified hazard categories** Skin corrosion or irritation. Serious eye damage or eye irritation. Specific target organ toxicity (single or repeated exposure)

 **SARA 313 (TRI reporting)**

 Not regulated

**Other federal regulations**

 **Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

 Not regulated

 **Clean Air Act (CAA) Section 112® Accidental Release Prevention (40 CFR 68.130)**

 Not regulated

 **Safe Drinking Water Act (SDWA)**

 Not regulated

**US state regulations**

 **California Proposition 65**

 California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins. For more information go to [www.P65Warnings.ce.gov](http://www.P65Warnings.ce.gov).

 **US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))**

 SODIUM HYDROXIDE (NA(OH)) (CAS 1310-73-2)

**International Inventories**

|  |  |  |
| --- | --- | --- |
| **Country(s) or region** | **Inventory name** | **On inventory (yes/no)** |
| Australia | Australian Inventory of Chemical Substances (AICS) | Yes |
| Canada | Domestic Substances List (DSL) | Yes |
| Canada | Non-Domestic Substance List (NDSL) | No |
| China | Inventory of Existing Chemical Substances in China (IECSC) | Yes |
| Europe | European Inventory of Existing Commercial Chemical Substances (EINECS) | Yes |
| Europe | European List of Notified Chemical Substances (ENCS) | No |
| Japan | Inventory of Existing and New Chemical Substances (ENCS) | Yes |
| Korea | Existing Chemicals List (ECL) | Yes |
| New Zealand | New Zealand Inventory | Yes |
| Philippines | Philippine Inventory of Chemicals & Chemical Substances (PICCS) | Yes |
| Taiwan | Taiwan Chemical Substance Inventory (TCSI) | Yes |
| United States & Puerto Rico | Toxic Substances Control Act (TSCA) inventory | Yes |

\*A “Yes” indicates that all components of this product comply with the inventory requirements administered by the governing country(s). A “No” indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country)s).

**16. OTHER INFORMATION**

**Issue Date** 05-03-2016

**Revision Date** 01-21-2021

**Version #** 20

**HMIS ratings** Health: 3

 Flammability: 0

 Physical hazard: 0

**NFPA ratings** Health: 3

 Flammability: 0

 Instability: 1

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