FICHA COM DADOS DE SEGURANÇA

Nome do Produto: SODA CAUSTICA LIQUIDA 50% G-MB

1 - Identificação

Nome do Produto: SODA CAUSTICA LIQUIDA 50% G-MB
Número da FDS: 4829
Comercializado por: Morais de Castro Comércio e Importação de Produtos Químicos Ltda.
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1.1-Outras maneiras de identificação:
Identified uses: Pulp and paper pulp industry (pulping and bleaching, removing used paper ink, water treatment). Textile industry (processing and dyeing fibers). Detergent and soap industry (saponification of fats and oils, manufacture of anionic surfactants). Bleach manufacturing. Exploration and treatment of oil.Aluminum production. Chemical processing. Neutralization of waste. Washing of acid gas. Neutralization of acids and of acid gases

1.2-Usos recomendados do produto químico e restrições de uso:

2 - Identificação de perigos

This product was classified according to ABNT NBR 14725-2, Chemical Products - Information on safety, health and

environment - Part 2: Hazard Classification System.
Hazardous classification
Corrosive to metals - Category 1
Acute toxicity - Category 4 - Oral
Corrosive to the skin - Category 1A
Serious eye damage - Category 1

Pictogramas:

Signal word: DANGER!

Dangers
It can be corrosive to metals.
Harmful if swallowed.
Causes severe skin burns and eye damage.
Precautionary phrases

Prevention
Keep only in the original container.
Wash skin thoroughly after handling.
Wear protective gloves / protective clothing / eye protection / face protection.

Reply

IF SWALLOWED: Rinse mouth. DO NOT induce vomiting.
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water / take a shower.
IF INHALED: Remove person to fresh air and keep at rest in a position comfortable for breathing.
breathing. Contact a TOXICOLOGICAL INFORMATION CENTER or doctor immediately.
IF IN EYES: Rinse cautiously with water for several minutes. In the case of using contact lenses, remove them, if easy.
Continue rinsing. Contact an INFORMATION CENTER immediately TOXICOLOGICAL OR A DOCTOR.
Wash contaminated clothing before using it again.
Absorb spilled product to avoid material damage.

Storage
Store locked up.

Other risks
data not available

3 - Composição e Informações sobre os ingredientes

Synonyms: 50% aqueous sodium hydroxide solution
This product is a pure substance.

Component | CASRN | Concentration
Sodium hydroxide | 1310-73-2 | > = 49.0 - < = 51.0%
Water | 7732-18-5 | > = 49.0 - < = 51.0%

4 - Medidas de primeiros-socorros

Description of first aid measures
General recommendation: Rescuers must pay attention to the necessary protective equipment and adopt it (protective gloves and
splash protection). If the potential for exposure exists, see Section 8 for specific protective equipment
staff.

Inhalation: Remove to fresh air. If not breathing, apply artificial respiration; in the mouth-to-mouth process adopt the device protection for the rescuer (special semi-mask). If breathing stops or is difficult, oxygen should be administered qualified personnel. Call a doctor or transport to a medical facility.

Skin contact: Get medical attention immediately. Good and continuous washing with water is essential at least 30 minutes while the clothes are removed. Medical care is important. Wash clothes before reusing them. Leather goods such as shoes, belts and watch chains need to be discarded. Remove glasses chemical protection last to prevent the material from coming into contact with the eyes. Do not apply oils or lotion.Keep the person warm. An appropriate emergency safety shower installation must be available immediately.

Eye contact: Immediately and continuously flush eyes with water for 30 minutes. Removing contact lenses after the first 5 minutes and continue washing. Seek medical help immediately, preferably from aOphthalmologist. If possible, wash your eyes during the trip. Water washing is the only acceptable method for removingof Caustic Soda (bleach) from the eyes and skin. You may only have 10 seconds or less to avoid serious injury and permanent. Continue washing until the doctor tells you to stop. Do not use soap or try to neutralize with

Chemicals. An appropriate emergency eye wash should be available immediately.

Ingestion: Get medical attention immediately. Do not induce vomiting. Administer a glass (240 ml) of water or milk,if available, and transport to a medical facility. Do not give anything by mouth unless the victim is fully conscious.

Most important symptoms and effects, both acute and delayed: In addition to the information found in Description of first aid measures (above) and Indications for urgent medical care and special treatment needed (below), any important additional symptoms and effects are described in section 11: Toxicological Information. Indication of immediate medical attention and necessary special treatment

Notes to the doctor: The material is a strong base. Maintain adequate ventilation and oxygenation of the patient. It might be eye washing for a long period of time is necessary to remove lye as much as possible. THE duration of washing and treatment is at the discretion of the doctor. Only for skin burns. If there are burns, treat them as thermal burns after decontamination. Due to irritating properties, ingestion may cause burns / ulceration of the mouth, stomach and lower gastrointestinal tract, with subsequent strangulation. THE aspiration of vomiting may cause lung damage. Endotracheal control of the esophagus is suggested, if it has been
washing was performed. There is no specific antidote. Exposure treatment should be directed towards the control of symptoms and clinical status of the patient.

5 - Medidas de combate a incêndio

Suitable extinguishing media:
This product does not burn. If exposed to fire by another source, use an extinguishing agent suitable for that fire.

Extinguishing Media to Avoid: Do not use water.

Special hazards arising from the substance or mixture
Hazardous combustion products: Not applicable

Unusual fire and explosion hazards .: The product reacts with water. The reaction can produce heat and / or gases. It is reaction can be violent. Direct application of a jet of water to hot liquids can generate steam violently or your eruption.

Precautions for firefighters
Fire Fighting Procedures: Keep people away. Isolate the risk area and prevent entry unnecessary. Water is not recommended, but can be applied in large quantities as a fine "spray" when other extinguishing agents are not available. This material does not burn. Fight fire from other material that it's burning.

Special equipment for the protection of people involved in fire fighting: Use self-contained fire fighting equipment positive pressure breathing and fire-fighting protective clothing (including fire-fighting helmet, coat, pants, boots and gloves). Avoid contact with this material in fire fighting operations. If the contact is likely, adopt full fire-resistant chemical-resistant clothing with an autonomous mask. If clothes of firefighter is not available, wear chemically-proof clothing with a self-contained mask and fight the fire in the distance. For the use of protective equipment in the cleaning phase after the fire (or in other than fire situations) consult the corresponding sections in this Safety Data Sheet

6 - Medidas de controle para derramamento ou vazamento

Personal precautions, protective equipment and emergency procedures:
Leave the area. Only trained and properly protected personnel should be involved in cleaning operations.
Refer to Section 7, Handling, for additional precautions. Position yourself with the wind behind you when there is leak.
Ventilate the area with a leak or spill. See section 10 for more specific information. Use appropriate safety equipment. For more information, refer to Section 8, Exposure Control and Individual Protection.

Environmental precautions: Avoid entry into the soil, ditches, sewers, waterways and / or groundwater. See Section 12, Ecological Information.

Methods and material for containment and cleaning up: Contain spilled material if possible. Small spills: Dilute with Water.

Large spills: Dike area for spill containment. Collect in suitable containers and properly labeled. Attempt to neutralize with materials such as: Acetic Acid See Section 13,
Elimination Considerations, for additional information.

Removal of sources of ignition: Keep away from sources of ignition.

Dust Control: Not applicable

7 - Manuseio e armazenamento

Precautions for safe handling: Do not take your eyes, skin or clothing Do not ingest. Avoid inhaling the mist. To wash carefully after handling. Keep the container closed. Use adequate ventilation. 1. ALWAYS add the caustic soda solution in water with constant agitation. NEVER add water in caustic soda solution. 2. The water it must be warm (27-38 ° C or 80-100 ° F). NEVER start with cold or hot water. The addition of caustic soda to the liquid will cause the temperature to rise. If the caustic soda is concentrated in one area, to add too quickly or to added in hot or cold liquid, rapid temperature rise can result in mists, boiling or splashing DANGEROUS, which can cause an immediate VIOLENT ERUPTION. See Section 8, Exposure Control and Protection
Individual.

Conditions for safe storage: Keep the container closed.
Do not store in: Zinc. Aluminum. Bronze. Tin.
See section 10 for more specific information.

Storage stability
Storage temperature:> 16 ° C
Shelf life: use within 24 Months

8 - Controle de exposição e proteção individual

Control parameters
Exposure limits are listed below, if any.
Component | Regulation | List type | Value / Notation
Sodium hydroxide | ACGIH | C | 2 mg / m³

Exposure controls
Engineering control: Adopt engineering measures to keep airborne concentration levels below the limits of established exposure. If there is no required or recommended exposure limit, use only with ventilation proper. For some operations, a local ventilation system may be required.

Individual protection measures
Skin / eye protection: Wear panoramic glasses.

Skin protection
Hand protection: Always wear gloves chemically resistant to this material. Among the examples of Preferred barriers for gloves include: Butyl rubber. Chlorinated polyethylene. Natural rubber ("latex"). Neoprene. Nitrile / butadiene rubber ("nitrile" or "NBR"). Polyethylene. Laminated ethyl vinyl alcohol ("EVAL"). Polyvinyl chloride ("PVC" or "vinyl"). Styrene / butadiene rubber. Viton. Avoid gloves made of: Polyvinyl alcohol ("PVA").
NOTE: the choice of a specific glove for particular application and duration of use in the workplace must also take into account all relevant workplace factors, such as, but not limited to: other agents chemicals that can be handled, physical requirements (cut / puncture protection, dexterity, protection against heat / cold), potential of the body's reaction to the glove materials, as well as the instructions / specifications provided by the glove supplier.

Other protections: Always wear protective clothing chemically resistant to this material. The selection of specific articles,such as face shield, gloves, boots, apron or full suit will depend on the operation.

Respiratory protection: Respiratory protection should be used when there is a potential to exceed exposure limits. If no there are no applicable exposure limits, use respiratory protection when adverse effects such as respiratory irritation or discomfort are experienced, or where indicated by your risk assessment process. In misty atmospheres, use a approved breathing apparatus.
The following respirators with air purifiers should be effective: those that have a particulate filter

9 - Propriedades físicas e químicas

Aspect
Physical state
Liquid above freezing point
Colorless color
Odor Odorless
Odor Limit. Test data is not available
pH 14 Bibliography
Melting point 14 ° C Bibliography
Freezing point 14 ° C Bibliography
Boiling point (760 mmHg) 145 ° C ASTM D1120
Flash point closed pot Bibliography None
Evaporation rate (butyl acetate = 1) Test data are not available
Flammability (solid, gas) No
Lower explosive limit Not applicable

Upper explosive limit Not applicable
Vapor pressure 1.5 mmHg at 20 ° C Bibliography
Relative Vapor Density (air = 1) Not applicable
Relative density (water = 1) 1.52 at 20 ° C Bibliography
Water solubility Bibliography aqueous solution
Partition coefficient (n-octanol / water) data not available
Auto-ignition temperature Not applicable
Decomposition temperature Test data is not available
Kinematic Viscosity 0.35 St at 25 ° C Calculated.
Explosion hazards data not available
Oxidizing properties No
Net density 1.5 g / cm³ at 20 ° C Bibliography
Molecular weight Test data are not available

NOTE: The physical data presented above are typical values ??and should not be interpreted as a specification

10 - Estabilidade e reatividade

Reactivity: no data available

Chemical stability: Stable under recommended storage conditions. See Storage, Section 7.

Possibility of hazardous reactions: Polymerization will not occur.

Conditions to avoid: Avoid moisture. The product absorbs carbon dioxide from the air.

Incompatible materials: Heat is generated when mixed with water. Splashing and boiling may occur. Solutions Caustic soda reacts quickly with various forms of sugar (i.e. fructose, galactose, maltose, dry whey solids) producing Carbon Monoxide. Precautions must be taken, including the measurement of carbon monoxide in the reservoir in order to ensure the safety of personnel before entering the reservoir. Avoid contact with: Acids. Glycols. Halogenated organics. Organic nitrocompounds. Flammable hydrogen can be generated in contact with metals such as: Zinc. Aluminum. Tin. Bronze.

Hazardous decomposition products: Does not decompose.

11 - Informações toxicológicas

Toxicological information appears in this section when such data is available.

Acute toxicity
Acute oral toxicity
This is a concentrated solution of caustic soda. Moderate toxicity if swallowed. Ingestion may cause irritation gastrointestinal or ulceration. Ingestion can cause burns of the mouth and throat.
As a product. The LD50 by ingestion of a single oral dose has not been determined.

Acute toxicity - Dermal
Absorption has not been determined due to corrosion.
As a product. The lethal LD50 dose for dermal absorption has not been determined.

Acute toxicity - Inhalation
This is a concentrated solution of caustic soda. Mists can cause severe irritation to the upper respiratory tract.
(nose and throat).
As a product. The LC50 has not been determined.

Corrosion / irritation to the skin.
This is a concentrated solution of caustic soda
Short contact can cause severe skin burns. Symptoms may include pain, severe local flushing and damage to the tissues.

Serious eye damage / eye irritation
This is a concentrated solution of caustic soda
It can cause severe irritation with damage to the cornea, which can result in permanent damage to vision, even to blindness.
Chemical burns may occur.
Particles of the product suspended in the air (mist) can cause eye irritation.

Awareness
For the main component (s):
It did not cause allergic reactions when tested on humans.

For respiratory sensitization:

No relevant information found.

Systemic Toxicity to Specific Target Organ (Single Exposure)
The material is corrosive. The material is not classified as a respiratory irritant, however, irritation of the respiratory tract higher or corrosivity can be expected.

Systemic Toxicity to Specific Target Organ (Repeated Exposure)
Based on available data, repeated exposures are not expected to cause any additional adverse effects significant.

Carcinogenicity
No relevant information found.

Teratogenicity
No relevant information found.

Reproductive toxicity
No relevant information found.

Mutagenicity
For the main component (s): "In vitro" genetic toxicity studies have been negative.

Aspiration Risks
Aspiration into the lungs can occur during ingestion or vomiting, causing tissue damage or injury pulmonary.

COMPONENTS THAT INFLUENCE TOXICOLOGY: Sodium hydroxide
Acute oral toxicity
LD50, Rabbit, 336 mg / kg Estimated

Acute toxicity - Dermal
The lethal LD50 dose for dermal absorption has not been determined.

Acute toxicity - Inhalation
The LC50 has not been determined

12 - Informações ecológicas

Ecotoxicological information appears in this section when such data is available.

Ecotoxicity
Sodium hydroxide
Acute toxicity to fish.
It can raise the pH of aquatic systems to pH> 10, which can be toxic to aquatic organisms.

Persistence and degradability
Sodium hydroxide
Biodegradability: Biodegradability is not applicable to inorganic substances.

Bioaccumulative potential
Sodium hydroxide
Bioaccumulation: Bioconcentration is not expected due to the relatively high solubility in water.

Soil Mobility
Sodium hydroxide
The potential for mobility on the ground is very high (Koc between 0 and 50).
Partition coefficient (Koc): 14 Estimated

Results of PBT and vPvB assessment
Sodium hydroxide
This substance is not considered to be persistent, bioaccumulative or toxic (PBT). This substance is not considered very persistent or very bioaccumulating (vPvB).

Other adverse effects
Sodium hydroxide
This substance is not listed in Annex I of Regulation (EC) 2037/2000 on ozone.

13 - Considerações sobre destinação final

Disposal methods: DO NOT DISCHARGE IN SEWERS, ON THE GROUND OR IN ANY BODY OF WATER. Every Disposal practices must comply with all local, state / municipal and federal laws and regulations. You regulations may vary by location. The characterization of the waste and compliance with applicable laws are full responsibility of the waste generating agent. AS YOUR SUPPLIER, WE DO NOT HAVE CONTROL OVER THE MANAGEMENT PRACTICES OR MANUFACTURING PROCESSES OF OTHER HANDLING OR
USING THE MATERIAL. THE INFORMATION PRESENTED IN THIS DOCUMENT REFERS TO THE PRODUCT ORIGINAL AS DESCRIBED IN THE COMPOSITION SECTION. FOR UNUSED OR UNUSED PRODUCT CONTAMINATED, the preferred option includes shipping to a licensed and permitted location for: Recycler.

Treatment methods and disposal of used packaging: Empty containers must be recycled or disposed of through an approved waste management unit. The characterization of the waste and compliance with laws applicable are the sole responsibility of the agent generating the waste. Do not reuse containers for any purpose

14 - Informações sobre transporte

Classification for land transport (ANTT)
Proper shipping name
SODIUM HYDROXIDE, SOLUTION
UN Number UN 1824
Risk class 8
Packing group II
Risk number 80
Environmental hazards Sodium hydroxide

Classification for maritime transport (IMO-IMDG):
Proper name for shipment SODIUM HYDROXIDE, SOLUTION
UN Number UN 1824
Risk class 8
Packing group II
Marine pollutant No
Bulk transport in accordance with Annex I or II of the Marpol 73/78 Convention and the IBC or IGC Code
Consult IMO regulations before transporting ocean bulk

Classification for air transport (IATA / ICAO):
Proper name for shipment SODIUM HYDROXIDE, SOLUTION
UN Number UN 1824
Risk class 8
Packing group II

This information is not intended to cover all operational or regulatory requirements / information for this product. Transport classification may vary by container volume and may be influenced by variations in regulations regional or national. Additional transportation system information can be obtained from the sales representative authorized service or customer service. It is the responsibility of the shipping organization to follow all laws, regulations and applicable rules related to the transport of the material.

15 - Informações sobre regulamentações

It is recommended to the customer to check if in the place of use of this product there are specific regulations for applications of use
human or veterinary, such as additives or packaging for food, drugs, household cleaning products or cosmetics, or even if the product is controlled because it is considered a precursor for the manufacture of narcotics, chemical weapons or ammunition. The hazard communication for this product complies with local and international laws, always observing the most restrictive requirement

16 - Outras Informações

Product Literature
Additional information about this product can be obtained by contacting our sales representative or with the customer service department. Ask for the product brochure.

Hazard Classification System
NFPA
Health | Fire | Reactivity
3 | 0 | 1

Subtitle
ACGIH - Limit values ??(TLV) of ACGIH in the USA

C - Maximum limit

Each customer or user receiving this PRODUCT SAFETY INFORMATION SHEET is recommended (MSDS) to study it carefully and, if necessary or appropriate, consult a specialist in order to know the dangers associated with the product and understand the data contained in this MSDS. The information contained herein is merely guidelines and are given in good faith, without incurring any liability, express or implied. Regulatory requirements are subject to change and may differ from region to region. It is the user's responsibility to ensure that their activities are in accordance with local, federal, state, and municipal legislation. The information presented here is pertinent only to the product in its original container. Since the conditions of use of the product are not under the manufacturer's control, it is the user's responsibility to determine the conditions necessary for its safe use. Due to the proliferation of information sources, such as MSDS obtained from other suppliers, we are not, nor can we take responsibility for an MSDS that is not ours. If an MSDS is obtained from another source or there is no certainty of If this is the most current version, contact us and ask for the most updated MSDS.