

Material Safety Data Sheet - MSDS

Product:

CAUSTIC SODA SOLUTION AT 50%

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MSDS No. : 002

Version: 08

Date: 04-02-2020

01 - IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING

PRODUCT NAME CAUSTIC SODA LIQUID AT 50%
 SDS No. 002
 MANUFACTURER Qatar Vinyl Company Ltd., QSC
 P O Box 24440, Doha, State of Qatar

EMERGENCY TELEPHONE No. For Spill, Leak, Fire, Exposure or Accident
 Call CHEMTRAC Day or Night
 Within USA and Canada: 1-800-424-9300
 Outside USA and Canada: +1-703-741-5970 and +1-703-527-3887
 (collect calls accepted)

02 - COMPOSITION / INFORMATION ON INGREDIENTS

CHEMICAL NAME OF THE SUBSTANCE SODIUM HYDROXIDE 50%
 AQUEOUS SOLUTION

Chemical Name	Synonyms	EC-NO.	CAS-No.	Concentration	Classification Directive 67/548/EEC	Classification Regulation (EC) No 1272/2008 (GHS)
Sodium hydroxide	Caustic soda	215-185-5	1310-73-2	49.0 - 51.0 % w/w	C; R35	Skin Corr. 1A; H314 Eye Dam. 1; H318 Met. Corr; H290

03 - HAZARDS IDENTIFICATION

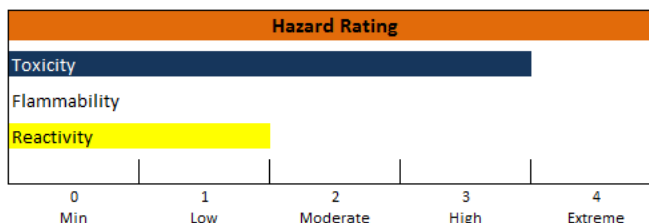
MOST IMPORTANT HAZARDS
 HEALTH EFFECTS

PHYSICAL AND CHEMICAL HAZARDS
 SPECIFIC HAZARDS / EC
 LABEL ELEMENTS (REGULATION (EC) NO
 1272/2008) IN ACCORDANCE WITH GHS
 Name:

Hazard pictograms:

SAFETY INFORMATION : PLEASE READ THIS SHEET CAREFULLY
 Skin corrosion, 1A, H314
 Risk of serious damage to eyes, 1, H318
 CORROSIVE to metals, 1, H290
 At high temperature : forms flammable and explosive hydrogen through

Sodium hydroxide; caustic soda



Signal Word:

Hazard statements:

Precautionary statements:

Danger
 Causes severe skin burns and eye damage.
 May be corrosive to metals.
Prevention:
 Do not breathe gas/mist/vapors/spray.
 Wear protective gloves/protective clothing/eye protection/face protection.

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OTHER HAZARDS

Response:

IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.

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 or doctor/ physician.

Absorb spillage to prevent material damage.

Potential health effects:

Acute exposure: Corrosive liquid

Inhalation: Severely irritating to respiratory system

Ingestion: Risk of perforation of digestive system

Physical and chemical hazards:

At high temperature: Forms flammable and explosive hydrogen through corrosion of metals.

Decomposition products: See chapter 10

Other:

Results of PBT and vPvB assessment : Not relevant

04 - FIRST AID MEASURES

GENERAL ADVICE

Under the shower:

Take off immediately all contaminated clothing, including shoes.

INHALATION

Inhalation of mists: Move to fresh air, Oxygen or artificial respiration if needed.

Keep under medical surveillance

In case of problems : Hospitalize

SKIN CONTACT

Wash immediately, abundantly and thoroughly with water

If possible, rinse with Boric Acid Solution 5%

Consult a doctor.

EYE CONTACT

In case of extensive burns, hospitalize

Remove particles remaining under the eyelids

Wash well open eyes immediately and abundantly with water for at least 15 min.

INGESTION

Consult an ophthalmologist immediately.

Do not induce vomiting, rinse mouth and lips with plenty of water if the subject is conscious, then hospitalize immediately.

PROTECTION OF FIRST-AIDERS

Risk of Aerosol

For any intervention, wear appropriate breathing apparatus, Protective suit Impermeable Gloves, Safety Glasses/Goggles

05 - FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA

Suitable extinguishing media: Use extinguishing measures that are appropriate to local circumstances and the Surrounding environment.

SPECIFIC HAZARDS

At high temperature : Forms flammable and explosive hydrogen through corrosion of metals

ADVICE FOR FIREFIGHTERS

Specific Methods: In case of fire nearby, remove exposed containers. Keep containers and surroundings cool with water spray.

Special protective actions for fire-fighters:

Wear self-contained breathing apparatus and protective suit.

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06 - ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS,
PROTECTIVE EQUIPMENT AND
EMERGENCY PROCEDURES

Use personal protective equipment. Ensure adequate ventilation. Evacuate personnel to safe areas. Prohibit contact with skin and eyes and Inhalation of vapors.

ENVIRONMENTAL PRECAUTIONS

Should not be released into the environment
Do not let the product enter into drains
Contain by damming with sand or inert earth (Do not use combustible materials)

METHODS FOR CLEANING UP

Recovery:
Wash with water and recover it. Absorb on sand. Wash the remainder with water.
Absorb on : Sand, Loam
Neutralization:
Neutralize with an acid (diluted solutions : Hydrochloric acid)
Neutralization is exothermic
Elimination: See chapter 13

07 - HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING
Technical measures/Precautions

Storage and handling precautions applicable to products: viscous liquid Corrosive. At high vapor/fog concentrations: Provide appropriate Exhaust ventilation at machinery. Provide showers, eye-baths. Provide water supplies near the point of use. Provide self-contained breathing apparatus nearby

Safe handling advice
Hygiene measures

Avoid splashing when handling. For personal protection see section 8.
Prohibit contact with skin and eyes and inhalation of vapors. When using, do not eat, drink or smoke.
Wash hands after handling. Remove contaminated clothing and protective equipment before entering eating areas.

CONDITION FOR SAFE STORAGE
Technical measures/Storage conditions

Provide a catch-tank and an impermeable corrosion-resistant floor with drainage to a neutralization tank within a dyke area. Store protected From moisture. Provide waterproof electrical equipment.
Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.
Do not store below: 20 °C

Incompatible products

Acids,
Halogenated hydrocarbons
Ordinary steel
Stainless steel
Vulcanite coated steel
Epoxy resin lined tanks
Aluminum.
Copper and alloys
Zinc and alloys

PACKAGING MATERIALS
RECOMMENDED

To be avoided

08 - EXPOSURE CONTROLS / PERSONAL PROTECTION

PROTECTIVE PROVISIONS
CONTROL PARAMETERS

Ensure sufficient air exchange and/or exhaust in work areas

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Exposure limits

FRANCE 1993 : VME= 2 mg/m³
USA-ACGIH 2007 : Ceiling = 2 mg/m³ (maximum value)
EH40 WEL 2007; STEL 2 mg/m³

PERSONAL PROTECTION EQUIPMENT

Respiratory protection: In case of insufficient ventilation, wear suitable respiratory equipment. Recommended Filter type: P2
Hand protection: Splash contact, intermittent and prolonged PVC or other plastic material gloves Glove thickness: 1,2 mm
Eye/face protection: Safety glasses/goggles and face-mask (during discharge)
Skin and body protection:
At the workplace: Safety shoes, Combination with delayed penetration
Intervention at incident: Boots, overalls with hood, multi layered polyethylene

09 - PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE (20°C)	liquid
FORM	cloudy
COLOUR	Colorless
ODOUR	None
OLFACTORY THRESHOLD	No data available
pH	pH 14
FREEZING POINT	12°C
BOILING POINT/RANGE	142 - 144 °C
FLASH POINT	Not applicable
EVAPORATION RATE	No data available
FLAMMABILITY	Not applicable
VAPOUR PRESSURE	(20°C) : 2 hPa (mbar)
VAPOUR DENSITY	No data available
DENSITY	liquid : (20°C) : 1520 kg/m ³
SPECIFIC GRAVITY (water = 1)	(liquid) (*) : (20°C) : 1.52 (*)
WATER SOLUBILITY	20°C : Completely soluble
PARTITION COEFFICIENT: N-OCTANOL/WATER:	Partition coefficient: n-octanol/water, Not relevant
MOLECULAR MASS :	40.01
AUTOIGNITION TEMPERATURE	Not applicable
VISCOSITY, DYNAMIC	Viscosity (20°C) : 78 mPa.s Viscosity (40 °C) : 23 mPa.s (cP)
OTHER DATA	
Solubility in other solvent	Water soluble solvents
Henry constant	Not applicable
Explosive properties	Not relevant (due to chemical structure)
Oxidizing properties	Not relevant (due to chemical structure)

10 - STABILITY AND REACTIVITY

REACTIVITY & CHEMICAL STABILITY	The product is stable under normal handling and storage conditions.
CONDITION TO AVOID	(To maintain the technical properties of the product). Store protected from moisture.
INCOMPATIBLE MATERIALS TO AVOID	Water : Acids (Neutralization is exothermic) Metals : Zinc-Aluminum-Copper (formation of : Hydrogen) Alkaline metals : alkaline earth metals-exothermic reaction, formation of Hydrogen Acetaldehyde - Acrolein - Acrylonitrile - Allyl alcohol (Violent polymerization) Halogenated hydrocarbon-Maleic anhydride-Bromine-Nitro paraffin Nitro aromatics-Oleums-Tetrahydrofuran (Violent, even explosive, reaction)
HAZARDOUS DECOMPOSITION PRODUCTS	At high temperature : Forms flammable and explosive hydrogen through corrosion of metals

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11 - TOXICOLOGICAL INFORMATION

TOXICOLOGICAL INFORMATION

Acute toxicity

Ingestion:

Causes severe digestive tract burns., Risk of perforation of digestive system, State of shock

LOCAL EFFECTS (Corrosion /Irritation /
Serious eye damage)

Skin Contact

Causes severe burns. Very corrosive to skin

Recovery slow, Serious lesions with possible after-effects if not washed immediately. Scars may be retractile

Diluted solutions: Dermatitis possible through repeated contact

Eye Contact

Corrosive to eyes

Serious lesions with possible after-effects if not washed immediately, Affects all the tissues of the eye. Risk of loss of sight.

RESPIRATORY or SKIN SENSITIZATION

Inhalation

No data available

Skin Contact

Not a skin sensitizer

Negative epicutaneous tests reported in man

CMR EFFECTS

Mutagenicity

Results from in vitro and in vivo tests do not lead to considering the product as genotoxic.

In vitro

Ames test: negative

In vitro test for chromosomal abnormalities on CHO cells: positive

DNA repair test on rats hepatocytes: negative

In vivo

Micronucleus test in vivo mouse: negative

Tests for chromosome aberrations in vivo in germ cells: negative

Based on the available data, the substance is not suspected of having carcinogenic potential

Carcinogenicity

Reproductive toxicity

Fertility: Based on the available data, the substance is not suspected of having reprotoxic potential.

SPECIFIC TARGET ORGAN TOXICITY

Single exposure

Inhalation

Corrosive to respiratory system

Inhalation of mists , aerosol

Repeated exposure

The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Local effects due to an irritant effect

ASPIRATION HAZARDS

No data available

12 - ECOLOGICAL INFORMATION

ACUTE TOXICITY

Fish

LC50, 96 h (Freshwater fish) : 35 - 139 mg/l

Aquatic invertebrates

LC50 : 30 - 1.000 mg/l product not neutralized

Aquatic plants

No relevant data for technical reasons.

Microorganisms

No data available

PERSISTENCE & DEGRADABILITY

Biodegradation (In water):

Formation of salts in solution in the environment, not applicable

Photodegradation (In air):

Overall half-life time: 13 s, Neutralization by atmospheric carbon dioxide

BIOACCUMULATION POTENTIAL

Bioaccumulation:

Not applicable

Partition coefficient: n-octanol/water, Not relevant

MOBILITY IN SOIL - Distribution among
environmental compartments

Distribution among environmental compartments : not applicable

Henry constant: not applicable,

Absorption / desorption: Non absorbable

RESULTS OF PBT AND vPvB assessment:

Not relevant

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13 - DISPOSAL CONSIDERATIONS

DISPOSAL OF PRODUCT	Neutralize with an acid (diluted solutions : Hydrochloric acid)
DISPOSAL OF PACKAGING	Clean container with water Recover waste water for treatment later

14 - TRANSPORT INFORMATION

PROPER SHIPPING NAME	SODIUM HYDROXIDE SOLUTION
UN Number	1824
LABEL	



ADR	Class : 8; Label 8; Packing Group II; Environmentally hazardous: no;
ADNR	Class : 8; Label 8; Packing Group II; Environmentally hazardous: no;
RID	Class : 8; Label 8; Packing Group II; Environmentally hazardous: no;
IMDG	Class : 8; Label 8; Packing Group II; Environmentally hazardous: no; EmS Number: F-A, S-B
IATA Cargo	Class : 8; Label 8; Packing Group II; Environmentally hazardous: no;
IATA Passenger	Class : 8; Label 8; Packing Group II; Environmentally hazardous: no;

15 - REGULATORY INFORMATION

SAFETY DATA SHEETS	Safety data sheets: according to Regulation (EC) No. 1907/2006
EC CLASSIFICATION / LABELLING	(EC) No 1272/2008 (GHS)
ADDITIONAL REGULATIONS (EU)	Hazardous Waste Regulations 2005 Applies Young workers 94/33/EC Banned and/or restricted UK REGULATION Chip3: Chemical (Hazard Information and Packaging for Supply) Regulations 2002
INVENTORIES	EINECS: Conforms to TSCA: Conforms to AICS: Conforms to DSL: All components of this product are on the Canadian DSL list. ENCS (JP): Conforms to KECI (KR): Conforms to PICCS (PH): Conforms to IECSC (CN): Conforms to
REACH Registration Status	Registered

16 - OTHER INFORMATION

Full text of R, H, EUH-phrases referred to under sections 2 and 3	R35 Causes severe burns. H290 May be corrosive to metals. H314 Causes severe skin burns and eye damage. H318 Causes serious eye damage.
RECOMMENDED USES	Chemical Industry Textiles Metallurgy (Aluminum) Paper making Soap industry Detergents Fiche toxicologique INRS : N° 20 : Soude Caustique et Solutions Aqueuses

BIBLIOGRAPHY REFERENCES

This information applies to the PRODUCT AS SUCH and conforming to specifications of QVC.
In case of formulations or mixtures, it is necessary to ascertain that a new danger will not appear.

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The information contained is based on our knowledge of the product, at the date of publishing and it is given quite sincerely. However the revision of some data is in progress.

Users are advised of possible additional hazards when the product is used in applications for which it was not intended.

This sheet shall only be used and reproduced for prevention and security purposes.

The references to legislative, regulatory and codes of practice documents cannot be considered as exhaustive.

It is the responsibility of the person receiving the product to refer to the totality of the official documents concerning the use, the possession and the handling of the product.

It is also the responsibility of the handlers of the product to pass on to any subsequent persons who will come into contact with the product (usage, storage, cleaning of containers, other processes) the totality of the information contained within this safety data sheet and necessary for safety at work, the protection of health and the protection of environment.