

QVC MSDS CODE: C3.0.2-8
Material Safety Data Sheet - MSDS

Product:
MSDS No. : 002

Version: 04

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Date: 19-10-2016

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
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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	> 49.5 - 50.0%	C; R35	Skin Corr. 1A; H314 Eye Dam. 1; H318 Met. Corr; H290

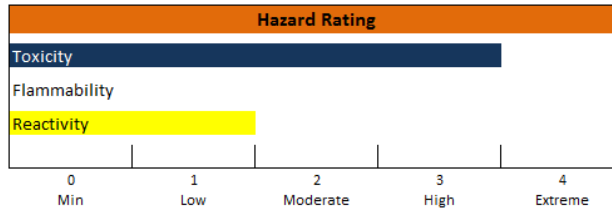
03 - HAZARDS IDENTIFICATION

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.
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.

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OTHER HAZARDS

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.

Consult an ophthalmologist immediately.

INGESTION

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 Avoid splashing when handling. For personal protection see section 8.
Hygiene measures 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
PACKAGING MATERIALS RECOMMENDED Ordinary steel
Stainless steel
Vulcanite coated steel
Epoxy resin lined tanks
To be avoided Aluminum.
Copper and alloys
Zinc and alloys

08 - EXPOSURE CONTROLS / PERSONAL PROTECTION

PROTECTIVE PROVISIONS Ensure sufficient air exchange and/or exhaust in work areas
CONTROL PARAMETERS

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Exposure limits	FRANCE 1993 : VME= 2 mg/ m3 USA-ACGIH 2007 : Ceiling = 2 mg/ m ³ (maximum value) EH40 WEL 2007; STEL 2 mg/ m3
PERSONAL PROTECTION EQUIPMENT	<p>Respiratory protection: In case of insufficient ventilation, wear suitable respiratory equipment. Recommended Filter type: P2</p> <p>Hand protection: Splash contact, intermittent and prolonged PVC or other plastic material gloves Glove thickness: 1,2 mm</p> <p>Eye/face protection: Safety glasses/goggles and face-mask (during discharge)</p> <p>Skin and body protection: At the workplace: Safety shoes, Combination with delayed penetration Intervention at incident: Boots, overalls with hood, multi layered polyethylene</p>

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/ m3
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 CONDITION TO AVOID	The product is stable under normal handling and storage conditions. (To maintain the technical properties of the product). Store protected from moisture.
INCOMPATIBLE MATERIALS TO AVOID	<p>Water : Acids (Neutralization is exothermic)</p> <p>Metals : Zinc-Aluminum-Copper (formation of : Hydrogen)</p> <p>Alkaline metals : alkaline earth metals-exothermic reaction, formation of Hydrogen</p> <p>Acetaldehyde - Acrolein - Acrylonitrile - Allyl alcohol (Violent polymerization)</p> <p>Halogenated hydrocarbon-Maleic anhydride-Bromine-Nitro paraffin</p> <p>Nitro aromatics-Oleums-Tetrahydrofuran (Violent, even explosive, reaction)</p>
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

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

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

BIBLIOGRAPHY REFERENCES

Fiche toxicologique INRS : N° 20 : Soude Caustique et Solutions Aqueuses

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.

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.

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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.

The highlighted text indicates the changes made with respect to the previous version.