



SAFETY DATA SHEET

CAUSTIC SODA MICROPEARLS

1. IDENTIFICATION

Product identifier

Product Name Caustic Soda Micropearls

Other means of identification

SDS Number SDS01408

Synonyms Sodium Hydroxide or Lye

Recommended use of the chemical and restrictions on use

Recommended Use Industrial cleaners. Petroleum Industries. Metal finishing. Chemical processing. Drum cleaners.

Restricted Uses No information available

Initial Supplier Identifier

Voyageur Soap and Candle Co.
Unit 102 - 19475 Fraser Hwy
Surrey, BC V3S 6K7
Telephone: 1-800-758-7773

Emergency telephone number

24 Hour Emergency Phone Number (CANUTEC): 1-888-226-8832 (1-888-CAN-UTEC)

2. HAZARD IDENTIFICATION

Hazardous Classification of the substance or mixture

Corrosive to metals	Category 1
Acute toxicity – Dermal	Category 4
Skin corrosion/irritation	Category 1
Serious eye damage/eye irritation	Category 1

Label elements

SAFETY DATA SHEET

CAUSTIC SODA MICROPEARLS

Hazard pictograms



Signal Word: Danger

Hazard Statements

May be corrosive to metals

Causes severe skin burns and eye damage

Precautionary Statements

Prevention

Do not get in eyes, on skin, or on clothing

Wear protective gloves/protective clothing/eye protection/face protection

Response

IF exposed or if you feel unwell: Call a POISON CENTER or doctor/physician

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

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

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

IF SWALLOWED: Rinse Mouth. DO NOT induce vomiting.

Storage

Store locked up

Disposal

Dispose of contents/container to an approved waste disposal plant

Harmful to aquatic life with long lasting effects

Unknown acute toxicity

No information available

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance

Not applicable

Mixture

Chemical Name	CAS No.	Weight - %	Synonyms
Sodium Hydroxide	1310-73-2	90 - 100%	Sodium Hydroxide
Sodium Chloride	7647-14-5	0 - 10%	Sodium Chloride
Sodium Carbonate	497-19-8	0 - 10%	Sodium Carbonate

SAFETY DATA SHEET

CAUSTIC SODA MICROPEARLS

4. FIRST AID

Description of first aid measures

General Advice

Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.

Inhalation

Remove to fresh air. If breathing has stopped, give artificial respiration. Get medical attention immediately. Do not use mouth to mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. If breathing is difficult, (trained personnel should) give oxygen. Delayed pulmonary edema may occur.

Eye Contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Do not rub affected area. Remove contact lenses, if present and easy to do. Continue rinsing. Get immediate medical advice/attention.

Skin Contact

Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Get immediate medical advice/attention.

Ingestion

Do NOT induce vomiting. Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Get immediate medical advice/attention.

Self-Protection of the first aider

Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Wear personal protective clothing (see section 8). Avoid contact with skin, eyes or clothing. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation.

Most important symptoms and effects, both acute and delayed:

Causes severe eye burns. Small quantities can result in permanent damage and/or loss of vision. Inhalation of dusts or mists can cause damage to the upper respiratory tract and to the lung tissue depending on severity of exposure. Effects can range from mild irritation of mucous membranes, severe pneumonitis and destruction of lung tissue. May cause dermatitis. Corrosive action causes burns and frequently deep ulcerations with subsequent scarring. Prolonged contact destroys tissue. Corrosive to the respiratory passage. Causes severe burns. Ingestion of product may result in death. Severe burns and complete tissue perforation of mucous membranes of mouth, throat and stomach.

Indication of any immediate medical attention and special treatment needed:

Note to physicians

Treatment based on sound judgment of physician and individual reactions of patient.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Use extinguishing media appropriate for surrounding fire.

Specific hazards arising from the substance or mixture

Contact with some metals (particularly magnesium, aluminum and galvanized zinc) can rapidly generate hydrogen. Use water spray to cool containers. Reacts with metals to generate flammable hydrogen gas. Do not get water inside container. Avoid direct contact of this product with water as this can cause a violent exothermic reaction.

Hazardous combustion products

No decomposition expected under normal storage conditions.

SAFETY DATA SHEET

CAUSTIC SODA MICROPEARLS

Special protective equipment for fire-fighters

Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Use personal protective equipment as required. Attention! Corrosive material. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Should not be released into the environment. Do not allow to enter into soil/subsoil. Prevent product from entering drains.

Methods and materials for containment and cleaning up

Prevent further leakage or spillage if safe to do so.

7. HANDLING AND STORAGE

Precautions for safe handling

For industrial use only. Handle and open containers with care. Avoid contact with eyes, skin and clothing. Do not ingest. Avoid inhalation of chemical. Empty containers may contain hazardous product residues. Keep the containers closed when not in use. Protect against physical damage. Use appropriate personnel protective equipment. CAUTION - do not add water to caustic soda beads. The proper way is to add the beads slowly to the surface of cold water and agitate while they dissolve to avoid violent eruption or explosive reaction. If the water is not agitated, adding caustic soda beads rapidly is dangerous. The danger is greater if the water is warm instead of cold. The high heat of solution of dry caustic soda may cause a sudden violent eruption of caustic solution. Also, a layer of concentrated solution may form and suddenly mix with a layer of less concentrated solution. In this case, the high heat of solution may create steam and cause the solution to erupt. Caustic soda reacts with magnesium, aluminum, zinc (galvanized), tin, chromium, brass and bronze, generating hydrogen which is explosive. Caustic soda may react with various sugars to generate carbon monoxide. Hazardous carbon monoxide gas can form upon contact with food and beverage products in enclosed vessels and can cause death. Do not enter a storage tank or container (truck or rail) that has contained this product, even if it appears empty.

Conditions for safe storage, including any incompatibilities

Store in accordance with good industrial practices. Keep containers tightly closed. Protect against moisture, water and physical damage. Do not store in aluminum container or use aluminum fittings or transfer lines, as flammable hydrogen can be generated. Store in a dry, well ventilated area, separate from acids, peroxides, metals, easily ignitable materials and other incompatibles.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Limits

SAFETY DATA SHEET

CAUSTIC SODA MICROPEARLS

Chemical Name	Alberta OEL	British Columbia OEL	Ontario	Quebec OEL	Exposure Limit - ACGIH	Immediately Dangerous to life or health - IDLH
Sodium Hydroxide 1310-73-2	Ceiling: 2mg/m ³	Ceiling: 2mg/m ³	CEV: 2mg/m ³	Ceiling: 2mg/m ³	2mg/m ³ Ceiling	10mg/m ³
Sodium Chloride 7647-14-5	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available
Sodium Carbonate 497-19-8	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

Consult local authorities for recommended exposure limits

Appropriate engineering controls

Engineering controls

Localized ventilation should be used to control dust levels. Provide local exhaust to meet TLV requirements if making solutions or grinding up and mist or dust is generated. Ventilation facilities should be corrosion resistant.

Individual protection measures, such as personal protective equipment

Eye/face protection

Close fitting chemical safety goggles with faceshield.

Hand protection

Appropriate chemical resistant gloves should be worn. Nitrile gloves. Neoprene gloves. Rubber gloves.

Skin and body protection

Skin contact should be prevented through the use of suitable protective clothing, gloves and footwear, selected for conditions of use and exposure potential. Consideration must be given both to durability as well as permeation resistance. Rubber apron. Rubber boots. PVC clothing.

Respiratory protection

If exposure exceeds occupational exposure limits, use an appropriate NIOSH-approved respirator.

General hygiene considerations

Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance

Physical state	Solid
Color	White
Odor	Odorless
Odor Threshold	No information available

Properties

<u>Properties</u>	<u>Values</u>	<u>Remarks - Method</u>
pH	12	
Melting point / freezing point	310°C / 590°F	None known
Initial boiling point / boiling range	No data available	None known
Flash point	No data available	None known
Evaporation rate	No data available	None known
Flammability (solid, gas)	No data available	None known
Flammability Limit in Air		
Upper flammability limit:	No data available	

SAFETY DATA SHEET

CAUSTIC SODA MICROPEARLS

Lower flammability limit:	No data available	
Vapor pressure	No data available	None known
Relative vapour density	No data available	None known
Specific Gravity	2.13 @ 20°C	
Water solubility	Completely soluble	
Solubility in other solvents	No data available	
Partition coefficient	No data available	
Autoignition temperature	No data available	None known
Decomposition temperature	No data available	None known
Kinematic viscosity	No data available	None known
Dynamic viscosity	No data available	None known
Explosive properties	No information available	
Oxidizing properties	No information available	
Molecular weight	40	
VOC Percentage Volatility	No information available	
Liquid density	No information available	
Bulk density	No information available	

10. STABILITY AND REACTIVITY

Reactivity/Chemical Stability

Stable under normal conditions

Possibility of hazardous reactions

Contact with water may generate sufficient heat to ignite combustible materials.

Conditions to avoid

Addition of water results in large temperature increase. Avoid contact with incompatible materials.

Incompatible materials

Aldehydes. Contact with water. Contact with acids. Contact with air. Product is corrosive to tin, aluminum, zinc and alloys containing these metals and will react with these metals in powder form, avoid contact with leather, wool, acids, organic halogen compounds. Hazardous carbon monoxide gas can form upon contact with reducing sugars, food and beverage products in enclosed spaces and can cause death.

Hazardous decomposition products

No decomposition expected under normal storage conditions.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Inhalation

Inhalation of dusts or mists can cause damage to the upper respiratory tract and to the lung tissue depending on severity of exposure. Effects can range from mild irritation of mucous membranes, severe pneumonitis and destruction of lung tissue. Corrosive to the respiratory passage.

Eye contact

Causes severe eye burns. Small quantities can result in permanent damage and/or loss of vision.

Skin contact

May cause dermatitis. Corrosive action causes burns and frequently deep ulcerations with subsequent scarring. Prolonged contact destroys tissue. Causes severe burns.

SAFETY DATA SHEET

CAUSTIC SODA MICROPEARLS

Ingestion

Ingestion of product may result in death. Severe burns and complete tissue perforation of mucous membranes of mouth, throat and stomach.

Information on toxicological effects

Symptoms

No additional information available

Numerical measures of toxicity

Acute toxicity

The following values are calculated based on chapter 3.1 of the GHS document.

ATEmix (oral)	4,500.00 mg/kg
ATEmix (dermal)	1,378.00 mg/kg

Unknown acute toxicity

No information available

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Sodium Hydroxide 1310-73-2	140 – 340 mg/kg (Rat)	= 1350 mg/kg (Rabbit)	Not available
Sodium Chloride 7647-14-5	= 3 g/kg (Rat)	Not Available	>42 g/m ³ (Rat) 1 h
Sodium Carbonate 497-19-8	= 4090 mg/kg (Rat)	Not Available	= 2300 mg/m ³ (Rat) 1h

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation

May cause dermatitis. Corrosive action causes burns and frequently deep ulcerations with subsequent scarring. Prolonged contact destroys tissue. Causes severe burns.

Serious eye damage/eye irritation

Causes severe eye burns. Small quantities can result in permanent damage and/or loss of vision.

Respiratory or skin sensitization

No information available.

Germ cell mutagenicity

No information available.

Carcinogenicity

No information available.

Chemical Name	ACGIH	IARC	NTP	OSHA
Sodium Hydroxide 1310-73-2	Not Available	Not Available	Not Available	Not available
Sodium Chloride 7647-14-5	Not Available	Not Available	Not Available	Not Available
Sodium Carbonate 497-19-8	Not Available	Not Available	Not Available	Not Available

Reproductive toxicity

No information available

Specific target organ system toxicity - single exposure

No information available

Specific target organ system toxicity - repeated exposure

SAFETY DATA SHEET

CAUSTIC SODA MICROPEARLS

No information available

Aspiration hazard

No information available

12. ECOLOGICAL INFORMATION

Ecotoxicity

Chemical Name	Ecotoxicity – Freshwater Algae Data	Ecotoxicity – Fish Species Data	Toxicity to microorganisms	Crustacea
Sodium Hydroxide 1310-73-2	Not Available	45.4mg/L LC50 (Oncorhynchus mykiss) 96h static	Not Available	Not available
Sodium Chloride 7647-14-5	Not Available	5560 – 6080mg/L LC50 (Lepomis macrochirus) 96h flow-through 12946mg/L LC50 (Lepomis macrochirus) 96h static 6020 - 7070mg/L LC50 (Pimephales promelas) 96h static 7050mg/L LC50 (Pimephales promelas) 96h semi-static 6420 – 6700mg/L LC50 (Pimephales promelas) 96h static 4747 – 7824 mg/L LC50 (Oncorhynchus mykiss) 96h flow-through	Not Available	EC50: = 1000mg/L (48h, Daphnia magna) EC50: 340.7 – 469.2mg/L (48h, Daphnia magna)
Sodium Carbonate 497-19-8	Not Available	300mg/L LC50 (Lepomis macrochirus) 96h static 310 – 1220mg/L LC50 (pimephales promelas) 96h static	Not Available	EC50: = 265mg/L (48h, Daphnia magna)

Persistence and degradability

No information available

Bioaccumulation

No information available

Chemical Name	Partition coefficient
Sodium Hydroxide 1310-73-2	Not available
Sodium Chloride 7647-14-5	Not available
Sodium Carbonate 497-19-8	Not available

Other adverse effects

No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

Do not reuse empty containers.

SAFETY DATA SHEET

CAUSTIC SODA MICROPEARLS

14. TRANSPORT INFORMATION

TDG (Canada):

UN Number UN1823
Shipping Name SODIUM HYDROXIDE, SOLID
Class 8
Packing Group II
Marine pollutant Not available

DOT (U.S.):

UN Number UN1823
Shipping Name SODIUM HYDROXIDE, SOLID
Class 8
Packing Group II
Marine pollutant Not available

15. REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture

U.S. Regulatory Rules

Chemical Name	CERCLA/SARA – Section 302:	SARA (311, 312) Hazard Class:	CERCLA/SARA – Section 313:
Sodium Hydroxide - 1310-73-2	Not Listed	Listed	Not Listed
Sodium Chloride - 7647-14-5	Not Listed	Not Listed	Not Listed
Sodium Carbonate - 497-19-8	Not Listed	Not Listed	Not Listed

International Inventories

TCSA Complies
DSL/NDSL Complies

Legend:

TCSA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION

NFPA: Health hazards 3 Flammability 0 Instability 0 Physical and chemical properties -
HMIS Health Rating: Health hazards 3 Flammability 0 Physical hazards 0 Personal protection X

Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA TWA (time-weighted average) STEL STEL (Short Term Exposure Limit)
Ceiling Maximum limit value * Skin designation

Prepared By: The Environment, Health and Safety Department of Univar Canada Ltd.

Preparation Date: 05/Apr/2018

Revision Date: 05/Apr/2018

Disclaimer

NOTICE TO READER:

SAFETY DATA SHEET

CAUSTIC SODA MICROPEARLS

Refer to all relevant technical information specific to this product, prior to use. The information contained in this document and on our website (www.voyageursoapandcandle.com) is obtained from current and reliable sources. Voyageur Soap and Candle Co. provides the information herein, but makes no representation as to its comprehensiveness or accuracy. Individuals receiving this information must exercise their independent judgement in determining its appropriateness for a particular purpose. The user of the product is solely responsible for compliance with all laws and regulations applying to the use of the products, including intellectual property right of third parties. As the ordinary or otherwise use(s) of this product is outside the control of Voyageur Soap and Candle Co., no representation or warranty, expressed or implied is made as to the effect(s) of such use(s) (Including, but not limited to, injury or bodily harm) or the results obtained. Voyageur Soap and Candle Co. shall not be liable for any errors or delays in the content, or for any actions taken in reliance thereon. Voyageur Soap and Candle Co. shall not be responsible for any damages resulting from use of or reliance upon this information. In the event of any dispute, the customer hereby agrees that jurisdiction is limited to the province of British Columbia.

Due to its dangerous goods classification, Voyageur Soap and Candle Co. will only ship Sodium Hydroxide within Canada and by Canpar Ground Courier. There is a \$35.00 Dangerous Goods Charge applied to all orders for shipping of the 50lb bag size. Smaller sizes are exempt as they are considered limited quantities by the Transportation of Dangerous Goods Regulations.

End of Safety Data Sheet