SAFETY DATA SHEET

SDS01408
CAUSTIC SODA MICROPEARLS

Preparation Date: 25/Mar/2019 Version: 3

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
Univar Canada Ltd.
9800 Van Horne Way
Richmond, BC V6X 1W5
Telephone: 1-866-686-4827

Emergency telephone number

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

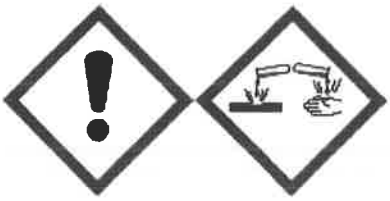
2. HAZARD IDENTIFICATION

Hazardous Classification of the substance or mixture

Corrosive to metals	Category 1
Acute toxicity - Dermal	Category 4
Skin corrosion/irritation	Category 1
Sub-category A	
Serious eye damage/eye irritation	Category 1
Acute aquatic toxicity	Category 3

Label elements

Hazard pictograms



Signal Word: Danger

Hazard statements
May be corrosive to metals
Causes severe skin burns and eye damage
Harmful if swallowed
Harmful to aquatic life

Precautionary Statements

Prevention
Wash thoroughly after handling
Do not eat, drink or smoke when using this product
Do not breathe dust/fume/gas/mist/vapors/spray
Wear protective gloves/protective clothing/eye protection/face protection
Keep only in original packaging
Avoid release to the environment

Immediately call a POISON CENTER or doctor
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
IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell

Absorb spillage to prevent material damage

Storage
Store locked up
Store in a well-ventilated place. Keep container tightly closed
Store in corrosive resistant container with a resistant inner liner
Absorb spillage to prevent material damage

Disposal
Dispose of contents/container to an approved waste disposal plant

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	1-5	Sodium Chloride
Sodium Carbonate	497-19-8	0.1-1	Sodium Carbonate

4. FIRST AID MEASURES

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.

Special protective equipment and precautions 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. Store in corrosive resistant stainless steel container with a resistant inner

liner.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Limits

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: 2 mg/m³	Ceiling: 2 mg/m³	CEV: 2 mg/m³	Ceiling: 2 mg/m³	2 mg/m³ Ceiling	10 mg/m³
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	Values	Remarks • Method
pH	14	
Melting point / freezing point	318 °C / 604 °F	
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	
Lower flammability limit:	No data available	
Vapor pressure	No data available	None known
Relative vapor 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. May be corrosive to metals.

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 from, 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.

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)	> 10 g/kg (Rabbit)	> 42 g/m³ (Rat) 1 h
Sodium Carbonate 497-19-8	= 4090 mg/kg (Rat)	Not available	Not available

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	Not available	Not available	Not available	Not available

7647-14-5				
Sodium Carbonate 497-19-8	Not available	Not available	Not available	Not available

Reproductive toxicity
No information available.

Specific target organ systemic toxicity - single exposure
No information available.

Specific target organ systemic toxicity - repeated exposure
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	45.4 mg/L LC50 (Oncorhynchus mykiss) 96 h static	Not available	Not available
Sodium Chloride 7647-14-5	Not available	4747 - 7824 mg/L LC50 (Oncorhynchus mykiss) 96 h flow-through 5560 - 6080 mg/L LC50 (Lepomis macrochirus) 96 h flow-through 6020 - 7070 mg/L LC50 (Pimephales promelas) 96 h static 6420 - 6700 mg/L LC50 (Pimephales promelas) 96 h static 12946 mg/L LC50 (Lepomis macrochirus) 96 h static 7050 mg/L LC50 (Pimephales promelas) 96 h semi-static	Not available	EC50: 340.7 - 469.2mg/L (48h, Daphnia magna) EC50: =1000mg/L (48h, Daphnia magna)
Sodium Carbonate 497-19-8	242 mg/L EC50 Nitzschia 120 h	310 - 1220 mg/L LC50 (Pimephales promelas) 96 h static 300 mg/L LC50 (Lepomis macrochirus) 96 h 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	Not available

497-19-8	

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.

14. TRANSPORT INFORMATION

TDG (Canada):

UN Number	UN1823
Shipping name	SODIUM HYDROXIDE, SOLID
Class	8
Packing Group	II
Marine pollutant	No.

DOT (U.S.)

UN Number	UN1823
Shipping name	SODIUM HYDROXIDE, SOLID
Class	8
Packing Group	II
Marine pollutant	No

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

TSCA	All components of this product are either on the Toxic Substances Control Act (TSCA) Inventory List or exempt.
DSL/NDSL	All components of this product are either on the Domestic Substances List (DSL), the Non-Domestic Substances List (NDSL) or exempt.

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

16. OTHER INFORMATION

NFPA:	**Health hazards** 3	**Flammability** 0	**Instability** 0	**Physical and chemical properties** -
HMIS:	**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.

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Revision Date: 25/Mar/2019

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End of Safety Data Sheet