Material Safety Data Sheet
Potassium Hydroxide MSDS

SECTION 1: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: Sodium Sulphate

CAS#: 1310-58-3

Synonyms: Potassium hydrate; Lye; Caustic potash

Company Identification:
PPEC Ltd, Sheepmarsh Lane, North Cotes Lincolnshire, DN36 5UU

For information call: 07741 161471 | 01472 389 545

Emergency Number: 07741 161471

SECTION 2: COMPOSITION AND INFORMATION ON INGREDIENTS

Component	CAS-No	Weight%
Potassium hydroxide	1310-58-3	100%

SECTION 3: HAZARDS IDENTIFICATION

Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Corrosive to metals	Category 1
Acute oral toxicity	Category 3
Skin Corrosion/Irritation	Category 1A
Serious Eye Damage/ Eye Irritation	Category 1
Specific target organ toxicity (single exposure)	Category 1

Target Organs - Respiratory System.

Label Elements

Signal Word: Danger

Hazard Statements
May be corrosive to metals
Toxic if swallowed

Causes severe skin burns and eye damage
May cause respiratory irritation

Precautionary Statements

Prevention

Wash face, hands and any exposed skin 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
Use only outdoors or in a well-ventilated area

Response

Immediately call a POISON CENTER or doctor/physician

Inhalation

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing

Skin

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

Eyes

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

Ingestion

Rinse mouth
Do NOT induce vomiting

Storage

Store locked up
Store in a well-ventilated place.
Keep container tightly closed

Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

None identified

SECTION 4: FIRST AID MEASURES

Eye Contact
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
Obtain medical attention.

Skin Contact
Wash off immediately with plenty of water for at least 15 minutes. Get medical attention if symptoms occur.

Inhalation
Move to fresh air. If breathing is difficult, give oxygen. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with a respiratory medical device. Immediate medical attention is required.

Ingestion
Do not induce vomiting. Call a physician or Poison Control Center immediately.

Most important symptoms/effects
Causes burns by all exposure routes. Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated. Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation.

Notes to Physician: Treat symptomatically

SECTION 5: FIRE AND EXPLOSION DATA

Suitable Extinguishing Media:
Substance is nonflammable; use agent most appropriate to extinguish surrounding fire..

Unsuitable Extinguishing Media : Carbon dioxide (CO2)
Flash Point: Not applicable
Method: No information available.

Autoignition Temperature No information available.
Explosion Limits
Upper - No data available
Lower - No data available

Sensitivity to Mechanical Impact - No information available
Sensitivity to Static Discharge - No information available

Specific Hazards Arising from the Chemical
Water reactive. Contact with metals may evolve flammable hydrogen gas. Thermal decomposition can lead to release of irritating gases and vapors.

Hazardous Combustion Products
Oxides of potassium.

Protective Equipment and Precautions for Firefighters
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

NFPA

Health	Flammability	Instability	Physical Hazards
0	1	1	N/A

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions
Use personal protective equipment. Evacuate personnel to safe areas. Ensure adequate ventilation. Avoid dust formation. Do not get in eyes, on skin, or on clothing.

Environmental Precautions
Should not be released into the environment. See Section 12 for additional ecological information.

Methods for Containment and Clean Up
Sweep up or vacuum up spillage and collect in suitable container for disposal. Avoid dust formation.

SECTION 7: HANDLING AND STORAGE

Handling
Use only under a chemical fume hood. Ensure adequate ventilation. Avoid dust formation. Do not breathe dust. Do not get in eyes, on skin, or on clothing.

Storage
Keep containers tightly closed in a dry, cool and well-ventilated place. Protect from moisture.
Corrosives area.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

Component	ACGIH TLV	OSHA PEL	NIOSH IDLH
Potassium hydroxide	Ceiling: 2 mg/m^3	(Vacated) Ceiling: 2 mg/m^3	Ceiling: 2 mg/m^3

Component	Quebec	Mexico OEL (TWA)	Ontario TWAEV
Potassium hydroxide	Ceiling: 2 mg/m^3		CEV: 2 mg/m^3

Engineering Measures
Use only under a chemical fume hood. Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal Protective Equipment

Eye/face Protection
Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166

Skin and body protection
Wear appropriate protective gloves and clothing to prevent skin exposure.

Respiratory Protection

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Hygiene Measures
Handle in accordance with good industrial hygiene and safety practice.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Solid
Appearance	White
Odor	Odorless
Odor Threshold	No information available
pH	13.5 (0.1M)
Melting Point/Range	360°C / 680°F
Boiling Point/Range	1320°C / 2408°F
Flash Point	Not applicable
Evaporation Rate	Not applicable
Flammability (solid,gas)	No information available
Flammability or explosive limits	
Upper	No data available
Lower	No data available
Vapor Pressure	No information available
Vapor Density	Not applicable
Relative Density	2.04
Solubility	Soluble in water
Partition coefficient; n-octanol/water	No information available
Decomposition Temperature	No information available
Viscosity	Not applicable
Molecular Formula	KOH
Molecular Weight	56.1

SECTION 10: STABILITY AND REACTIVITY DATA

Reactive Hazard: Yes
Stability: Water reactive. Moisture sensitive. Air sensitive.
Conditions to Avoid:
Avoid dust formation. Incompatible products. Excess heat. Exposure to moist air or water.

Incompatible Materials: Water, Metals, Acids.

Hazardous Decomposition Products: Oxides of potassium
Hazardous Polymerization: Hazardous polymerization does not occur.
Hazardous Reactions: None under normal processing

SECTION 11: TOXICOLOGICAL INFORMATION

Acute Toxicity
Product Information
Component Information

Component	LD50 Oral	LD50Dermal	LC50 Inhalation
Potassium hydroxide	214 mg/kg (Rat)	Not listed	Not listed

Toxicologically Synergistic: No information available

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

Irritation Causes severe burns by all exposure routes
Sensitization: No Information available
Carcinogenicity: The table below indicates whether each agency has listed any ingredient as a carcinogen.

Component	CAS-No	IARC	NTP	ACGIH	OSHA	Mexico
Potassium hydroxide	1310-58-3	Not Listed	Not Listed	Not Listed	Not Listed	Not Listed

Mutagenic Effects: Mutagenic effects have occurred in experimental animals.
Reproductive Effects: No information available
Developmental Effects: No information available
Teratogenicity: No information available
STOT - single exposure: Respiratory System
STOT - repeated exposure: None Known
Aspiration hazard: No information available
Symptoms / effects,both acute and delayed:
Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated. Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation.
Endocrine Disruptor Information: No information available
Other Adverse Effects: Tumorigenic effects have been reported in experimental animals. See actual entry in RTECS for complete information.

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity:

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
Potassium hydroxide	Not listed	80 mg/L LC50 96 h	Not listed	Not listed

Persistence and Degradability: No information available.
Bioaccumulation/ Accumulation: No information available.
Mobility:

Component	log Pow
Potassium hydroxide	0.83

SECTION 13: DISPOSAL CONSIDERATIONS

Waste Disposal Methods
Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

SECTION 14: TRANSPORT INFORMATION

DOT

UN-No UN1813

Proper Shipping Name Potassium hydroxide, solid

Hazard Class 8

Packing Group II

TDG

UN-No UN1813

Proper Shipping Name POTASSIUM HYDROXIDE, SOLID

Hazard Class 8

Packing Group II

IATA

UN-No: UN1813

Proper Shipping Name: POTASSIUM HYDROXIDE, SOLID

Hazard Class: 8

Packing Group: II

IMDG/IMO

UN-No: UN1813

Proper Shipping Name: POTASSIUM HYDROXIDE, SOLID

Hazard Class: 8

Packing Group: I

SECTION 15: OTHER REGULATORY INFORMATION

International Inventories

Component	TSCA	DSL	NDSL	EINECS	ELINCS	NLP	PICCS	ENCS	AICS	IECSC	KECL
Potassium Hydroxide	X	X	-	-	-		X	X	X	X	x

Legend:
X - Listed
E - Indicates a substance that is the subject of a Section 5(e) Consent order under TSCA.
F - Indicates a substance that is the subject of a Section 5(f) Rule under TSCA.
N - Indicates a polymeric substance containing no free-radical initiator in its inventory name but is considered to cover the designated polymer made with any free-radical initiator regardless of the amount used.
P - Indicates a commenced PMN substance
R - Indicates a substance that is the subject of a Section 6 risk management rule under TSCA.
S - Indicates a substance that is identified in a proposed or final Significant New Use Rule
T - Indicates a substance that is the subject of a Section 4 test rule under TSCA.
XU - Indicates a substance exempt from reporting under the Inventory Update Rule, i.e. Partial Updating of the TSCA Inventory Data Base
Production and Site Reports (40 CFR 710(B).
Y1 - Indicates an exempt polymer that has a number-average molecular weight of 1,000 or greater.
Y2 - Indicates an exempt polymer that is a polyester and is made only from reactants included in a specified list of low concern reactants that comprises one of the eligibility criteria for the exemption rule.

SECTION 16: OTHER INFORMATION

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if cienceLab.com has been advised of the possibility of such damages