MATERIAL SAFETY DATA SHEET

Product Name: Potassium hydroxide **CAS No.:** 1310-58-3 **Version: 0**

1. Identification

Product Code	:	90755, 90215, 90590
Company Name	:	Advent Chembio Private Limited
Address	:	W-288, MIDC, TTC INDUSTRIAL AREA, THANE-BELAPUR ROAD, RABALE, NAVI MUMBAI - 400 701.
E-mail	:	info@adventchembio.com
WEBSITE	:	www.adventchembio.com
Company Phone Number	:	022-27690837

2. Composition/Information on Ingredients

Ingredient	CAS No	Percent
POTASSIUM HYDROXIDE	1310-58-3	80- 90%

3. Hazards Identification

Hazard classification

Physical hazards

Corrosive to metals	:	Category 1

Health hazards

Skin corrosion/irritation	:	Category 1
Serious eye damage/eye irritation	:	Category 1
Specific target organ toxicity - single exposure	:	Category 3

Unknown toxicity

Acute toxicity, inhalation, dust or mist	:	100 %

Environmental hazards

Acute hazards to the aquatic environment	:	Category 3

Unknown toxicity

Chronic hazards to the aquatic environment	:	85 %

Labels elements

Hazard symbol

Signal word	:	Danger
Hazard statement	:	May be corrosive to metals. Causes severe skin burns and eye damage. May cause respiratory irritation.

Harmful to aquatic life.

Precautionary statement

Prevention	:	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. Keep only in original container. Wash hands thoroughly after handling. Avoid release to the environment.
Response	:	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/doctor. IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower. Get immediate medical advice/attention. Wash contaminated clothing before reuse. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
Storage	:	Store in a well-ventilated place. Keep container tightly closed. Store locked up.
Disposal		Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.
Other hazards which do not result in GHS classification	:	None.

4. First Aid Measures

General information	:	Get medical advice/attention if you feel unwell. If medical advice is needed, have product container or label at hand. Show this safety data sheet to the doctor in attendance.
Ingestion	:	Call a physician or poison control center immediately. Rinse mouth. Do NOT induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.
Inhalation	:	Move to fresh air. If breathing is difficult, give oxygen. Apply artificial respiration if victim is not breathing Call a physician or poison control center immediately.
Skin contact	:	Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Call a physician or poison control center immediately. Wash contaminated clothing before reuse. Destroy or thoroughly clean contaminated shoes.
Eye contact	:	Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Get medical attention if irritation persists after washing. In case of irritation from airborne exposure, move to fresh air.
Most important symptoms/effects, acute and delayed	:	Causes severe skin and eye burns. Causes digestive tract burns.
Indication of immediate medical attention and special treatment	:	Treat symptomatically. Symptoms may be delayed.

5. Fire fighting measures

General fire hazards	:	In case of fire and/or explosion do not breathe fumes.

Suitable (and unsuitable) extinguishing media

Suitable extinguishing media	:	Water spray, foam, dry powder or carbon dioxide.
Unsuitable extinguishing media	:	None known.
Specific hazards arising from the chemical	:	Fire may produce irritating, corrosive and/or toxic gases.

Special protective equipment and precautions for firefighters

Special fire fighting procedures	:	Move containers from fire area if you can do so without risk. Use water spray to keep fire-exposed containers cool.
Special protective equipment for fire-fighters	:	Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures	:	Keep unauthorized personnel away. Keep upwind. Use personal protective equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them.
Methods and material for containment and cleaning up	:	Sweep up and place in a clearly labeled container for chemical waste. Clean surface thoroughly to remove residual contamination. Neutralize spill area and washings with dilute acetic acid.
Notification Procedures	:	Dike for later disposal. Prevent entry into waterways, sewer, basements or confined areas. Stop the flow of material, if this is without risk. Inform authorities if large amounts are involved.
Environmental precautions	:	Do not contaminate water sources or sewer. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground .

7. Handling and Storage

Precautions for safe handling : Avoid inhalation of dust and vapors. Do not get in eyes, on skin, on clothing. Do not taste or swallow. Wash hands thoroughly after handling. Do not eat, drink or smoke when using the product.

Conditions for safe storage, including any incompatibilities : Do not store in metal containers. Keep containers tightly closed. Store in cool, dry place. Store in a well-ventilated place.

8. Exposure Controls Personal Protection

Control parameters

Occupational exposure limits

Chemical identity	Type	Exposure Limit values	Source
POTASSIUM HYDROXIDE	Ceiling	2 mg/m3	US. ACGIH Threshold Limit Values (2011)
	REL	2 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2010)
	Ceiling	2 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)

Appropriate engineering controls : No data available.

Individual protection measures, such as personal protective equipment

General information : Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. An eye wash and safety shower must be available in the immediate work area. Use explosion-proof ventilation equipment.

Eye/face protection : Wear safety glasses with side shields (or goggles) and a face shield. Wear a full-face respirator, if needed.

Hand protection : Chemical resistant gloves.

Other : Wear appropriate clothing to prevent reasonably probable skin contact.

Respiratory protection : In case of inadequate ventilation use suitable respirator. High-efficiency particulate respirator with full facepiece.

Hygiene measures : Provide eyewash station and safety shower. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work

clothing and protective equipment to remove contaminants. Do not get this material in contact with skin. Do not get in eyes.

9. Physical and Chemical Properties

Appearance	:	White Solid .
Odor	:	No data available
pH	:	13.5 0.1 N Aqueous solution
Melting point/freezing point	:	360 °C
Initial boiling point and boiling range	:	1,320 °C
Flash Point	:	No data available
Vapor pressure	:	0.1 kPa (714 °C) .
Vapor density	:	No data available.
Relative density	:	2.04 (20 °C) .
Solubility in water	:	Soluble
Solubility (other)	:	No data available.
Formula	:	KOH
Molecular Weight	:	56.11 g/mol

10. Stability and Reactivity

Reactivity	:	Reacts violently with strong acids.
Chemical stability	:	Material is stable under normal conditions.
Possibility of hazardous reactions	:	Hazardous polymerization does not occur. The substance is hygroscopic and will absorb water by contact with the moisture in the air.
Conditions to avoid	:	Avoid contact with oxidizing agents. Reacts violently with strong acids. Heat. Moisture .
Incompatible materials	:	Moisture. Oxidizing agents. Acids. Maleic Anhydride Halogens. Nitromethane. Contact with metals may evolve flammable hydrogen gas.
Hazardous decomposition products	:	Oxides of potassium.

11. Toxicological Information

Information on likely routes of exposure

Ingestion	:	May cause burns of the gastrointestinal tract if swallowed .
Inhalation	:	Causes severe burns.
Skin contact	:	Causes severe skin burns.
Eye contact	:	Causes serious eye damage.

Information on toxicological effects

Acute toxicity (list all possible routes of exposure)

Oral Product	:	ATEmix (Rat): 303.3 mg/kg .
Dermal Product	:	No data available.
Inhalation Product	:	No data available
Repeated dose toxicity Product	:	No data available.
Skin corrosion/irritation Product	:	Causes severe skin burns.
Serious eye damage/eye irritation Product	:	Causes serious eye damage.
Respiratory or skin sensitization Product	:	Not a skin sensitizer.
Carcinogenicity Product	:	This substance has no evidence of carcinogenic properties.
IARC Monographs on the Evaluation of Carcinogenic Risks to Humans DIOXANE	:	No carcinogenic components identified.
US. National Toxicology Program (NTP) Report on Carcinogens DIOXANE	:	No carcinogenic components identified.
US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050	:	No carcinogenic components identified.
Germ cell mutagenicity		
In vitro Product	:	No mutagenic components identified.
In vivo Product	:	No mutagenic components identified.
Reproductive toxicity Product	:	May damage fertility or the unborn child.
Specific target organ toxicity - single exposure Product	:	Respiratory tract irritation.
Specific target organ toxicity - repeated exposure Product	:	No data available.
Aspiration hazard Product	:	Not classified
Other effects	:	None known.

12. Ecological Information

Ecotoxicity

Acute hazards to the aquatic environment :

Fish Product	:	No data available.
Specified substance(s): POTASSIUM HYDROXIDE	:	LC 50 (Western mosquitofish (Gambusia affinis), 96 h): 80 mg/l Mortality
Aquatic invertebrates Product	:	No data available.

Chronic hazards to the aquatic environment :

Fish Product	:	No data available.
Aquatic invertebrates Product	:	No data available.
Toxicity to Aquatic Plants Product:	:	No data available.
Persistence and degradability		
Biodegradation Product	:	Expected to be readily biodegradable.

BOD/COD ratio Product	**:**	No data available.
Bioaccumulative potential		
Bioconcentration factor (BCF) Product	**:**	No data available on bioaccumulation.
Partition coefficient n-octanol / water (log Kow) Product	**:**	No data available.
Mobility in soil	**:**	The product is water soluble and may spread in water systems.
Other adverse effects	**:**	Harmful to aquatic organisms. The product may affect the acidity (pH-factor) in water with risk of harmful effects to aquatic organisms.

13. Disposal consideration

Disposal instructions : Discharge, treatment, or disposal may be subject to national, state, or local laws.

Contaminated packaging : Since emptied containers retain product residue, follow label warnings even after container is emptied.

14. Transport information

	UN No.	UN proper shipping name	Hazard Class(es)	Packaging group	Marine Pollutant
DOT	UN 1813	Potassium hydroxide, solid	8	II	No
IMDG	UN 1813	Potassium hydroxide, solid	8	II	No
IATA	UN 1813	Potassium hydroxide, solid	8	II	No

15. **Regulatory Information**

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

Safety, health and environmental regulations/legislation specific for the substance or mixture
No Data Available.

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16. Other Information

NFPA Hazard ID

Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe; co: Corrosive.

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