

TECHNAFLORA PLANT PRODUCTS LTD.

Material Safety Data Sheet

pH Up

1. Product and company identification

Common name : pH Up
Material uses : pH control.
Supplier/Manufacturer : Technaflora Plant Products Ltd.
7261 River Place, 101
Mission, B.C.
Canada, V4S 0A3
Tel. 604-826-4759 / 1-800-586-1211
In case of emergency : CHEMTREC, U.S. : (800) 424-9300 International: (703) 527-3887

2. Hazards identification

Physical state : Liquid.
Odor : Odorless.
Color : Colorless.
Hazard status : This material is classified as hazardous under OSHA regulations.
Emergency overview : WARNING !
CAUSES EYE AND SKIN BURNS.
HARMFUL IF SWALLOWED.
CONTAINS MATERIAL WHICH CAUSES DAMAGE TO THE FOLLOWING ORGANS:
LUNGS, RESPIRATORY TRACT, SKIN, EYE, LENS OR CORNEA.
Do not ingest. Do not get in eyes or on skin or clothing. Avoid breathing vapor or mist.
Keep container closed. Use only with adequate ventilation. Wash thoroughly after handling.
Routes of entry : Dermal contact. Eye contact. Inhalation. Ingestion.
Potential acute health effects
Eyes : Corrosive to eyes.
Skin : Corrosive to the skin.
Inhalation : No known significant effects or critical hazards.
Ingestion : Harmful if swallowed.
Potential chronic health effects : Carcinogenic effects: Not classified or listed by IARC, NTP, OSHA, EU and ACGIH.
Mutagenic effects: Not available.
Teratogenic effects: Not available.
Medical conditions aggravated by over-exposure : Repeated skin exposure can produce local skin destruction or dermatitis. Repeated or prolonged contact with spray or mist may produce chronic eye irritation and severe skin irritation. Repeated or prolonged exposure to the substance can produce target organ damage.

See toxicological information (section 11)

3. Composition/information on ingredients

United States

Name	CAS number	%
Potassium hydroxide	1310-58-3	5 - 10

4 . First aid measures

- Eye contact** : Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 20 minutes. Get medical attention immediately.
- Skin contact** : In case of contact, immediately flush skin with plenty of water for at least 20 minutes. Get medical attention immediately.
- Inhalation** : If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.
- Ingestion** : Do not induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention immediately.
- Notes to physician** : No specific antidote. Medical staff must contact Poison Control Center.

5 . Fire-fighting measures

- Flammability of the product** : Non-flammable.
- Extinguishing media**
- Suitable** : Use an extinguishing agent suitable for the surrounding fire.
- Not suitable** : None known.
- Special exposure hazards** : No specific hazard.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

6 . Accidental release measures

- Personal precautions** : Immediately contact emergency personnel. Keep unnecessary personnel away. Use suitable protective equipment.
- Environmental precautions** : Avoid dispersal of spilled material, runoff and contact with soil, waterways, drains and sewers.
- Methods for cleaning up** : If emergency personnel are unavailable, contain spilled material. For small spills, add absorbent (soil may be used in the absence of other suitable materials), scoop up material and place in a sealable, liquid-proof container for disposal. For large spills, dike spilled material or otherwise contain material to ensure runoff does not reach a waterway. Place spilled material in an appropriate container for disposal.

7 . Handling and storage

- Handling** : Do not ingest. Do not get in eyes or on skin or clothing. Keep container closed. Use only with adequate ventilation. Avoid breathing vapor or mist. Wash thoroughly after handling.
- Storage** : Keep container tightly closed. Keep container in a cool, well-ventilated area.

8 . Exposure controls/personal protection

United States

Product name

Potassium hydroxide

Exposure limits

ACGIH TLV (United States, 1/2005).

CEIL: 2 mg/m³ Form: All forms.

NIOSH REL (United States, 12/2001).

TWA: 2 mg/m³ 10 hour(s). Form: All forms

OSHA PEL 1989 (United States, 3/1989).

CEIL: 2 mg/m³ Form: All forms.

- Engineering measures** : No special ventilation requirements. Good general ventilation should be sufficient to control airborne levels. If this product contains ingredients with exposure limits, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits.

Personal protection

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 Authored by **KEMIKA**

- Eyes** : Face shield.
Skin : Synthetic apron. Boots.
Respiratory : Vapor respirator.
Hands : Nitrile gloves.



- HMIS Code/Personal protective equipment** : D
Personal protection in case of a large spill : Safety glasses, goggles or face shield. Impervious gloves. Full suit. Boots. Wear NIOSH-approved self-contained breathing apparatus or equivalent and full protective gear.
Hygiene measures : Wash hands, forearms and face thoroughly after handling compounds and before eating, smoking and using the lavatory and at the end of the day. Follow good industrial hygiene practice.

9 . Physical and chemical properties

- Physical state** : Liquid.
Color : Colorless.
Odor : Odorless.
pH : 14 [Basic.]
Boiling/condensation point : The lowest known value is 100°C (212°F) (Water).
Melting/freezing point : May start to solidify at 0°C (32°F) based on data for: Water.
Relative density : Weighted average: 1.03 (Water = 1)
Vapor pressure : The highest known value is 2.3 kPa (17.5 mm Hg) (at 20°C) (Water).
Vapor density : The highest known value is 0.62 (Air = 1) (Water).
Evaporation rate : 0.36 (Water) compared with Butyl acetate.
Solubility : Highly soluble in water.

10 . Stability and reactivity

- Stability and reactivity** : The product is stable.
Incompatibility with various substances : Highly reactive or incompatible with the following materials: moisture. Reactive with oxidizing materials and acids.
Hazardous polymerization : Will not occur.
Conditions of reactivity : None known.

11 . Toxicological information

Product/ingredient name	Toxicity data			Species
	Test	Result	Route	
Potassium hydroxide	LD50	273 mg/kg	Oral	Rat

Acute Effects

- Eyes** : Corrosive to eyes.
Skin : Corrosive to the skin.
Inhalation : No known significant effects or critical hazards.
Ingestion : Harmful if swallowed.
Potential chronic health effects : Carcinogenic effects: Not classified or listed by IARC, NTP, OSHA, EU and ACGIH.
 Mutagenic effects: Not available.
 Teratogenic effects: Not available.

Target organs : Contains material which causes damage to the following organs: lungs, upper respiratory tract, skin, eye, lens or cornea.

12 . Ecological information



Environmental precautions : No known significant effects or critical hazards.
Products of degradation : Some metallic oxides.
Toxicity of the products of biodegradation : The product itself and its products of degradation are not toxic.

13 . Disposal considerations

Waste disposal : Dispose of according to all federal, state and local applicable regulations.

14 . Transport information

NAERG : 154

Regulatory information	Proper shipping name	Class	UN number	PG	Label
UN / IMDG / IATA Classification	POTASSIUM HYDROXIDE, solution	8	UN1814	II	
DOT Classification	POTASSIUM HYDROXIDE, solution	8	UN1814	II	

15 . Regulatory information

United States

HCS Classification : Toxic material
Corrosive material
Target organ effects

U.S. Federal regulations : TSCA : All components listed.
 SARA 302/304/311/312 extremely hazardous substances: No products were found.
 SARA 302/304 emergency planning and notification: No products were found.
 SARA 302/304/311/312 hazardous chemicals: Potassium hydroxide
 SARA 311/312 MSDS distribution - chemical inventory - hazard identification: Potassium hydroxide: Immediate (acute) health hazard, Delayed (chronic) health hazard
 Clean Water Act (CWA) 307: No products were found.
 Clean Water Act (CWA) 311: Potassium hydroxide
 Clean Air Act (CAA) 112 accidental release prevention: No products were found.
 Clean Air Act (CAA) 112 regulated flammable substances: No products were found.
 Clean Air Act (CAA) 112 regulated toxic substances: No products were found.

State regulations : Pennsylvania RTK: Potassium hydroxide: (environmental hazard, generic environmental hazard)
 Massachusetts RTK: Potassium hydroxide
 New Jersey: Potassium hydroxide
 California prop. 65: No products were found.

International lists : This product, (and its ingredients) is (are) listed on national inventories, or is (are) exempted from being listed, Australia (AICS), in Europe (EINECS/ELINCS), in Korea (TCCL), in Japan (METI), in the Philippines (RA6969).

16 . Other information

Label requirements (U.S.A.) : CAUSES EYE AND SKIN BURNS.
 HARMFUL IF SWALLOWED.
 CONTAINS MATERIAL WHICH CAUSES DAMAGE TO THE FOLLOWING ORGANS:
 LUNGS, RESPIRATORY TRACT, SKIN, EYE, LENS OR CORNEA.

Hazardous Material Information System (U.S.A.) :

HMIS RATING	
Health	* 3
Fire hazard	0
Physical Hazard	0
Personal protection	D

HAZARD RATINGS

- 4- Extreme
- 3- Serious
- 2- Moderate
- 1- Slight
- 0- Minimal

See section 8 for more detailed information on personal protection.

National Fire Protection Association (U.S.A.) :



References : ANSI Z400.1, MSDS Standard, 2004. - Manufacturer's Material Safety Data Sheet. - 29CFR Part1910.1200 OSHA MSDS Requirements. - 49CFR Table List of Hazardous Materials, UN#, Proper Shipping Names, PG.

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Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.