COLUMBUS CHEMICAL INDUSTRIES

Safety Data Sheet

Potassium Hydroxide 0.100N in Methanol

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Potassium Hydroxide 0.100N in Methanol

Synonyms/Generic Names: None

Product Number: 9317

Product Use: Industrial, Manufacturing or Laboratory use

Manufacturer: Columbus Chemical Industries, Inc.
N4335 Temkin Rd.
Columbus, WI. 53925

For More Information: 920-623-2140 (Monday-Friday 8:00-4:30)
www.columbuschemical.com

In Case of Emergency Call: CHEMTREC - 800-424-9300 or 703-527-3887 (24 Hours/Day, 7 Days/Week)

2. HAZARDS IDENTIFICATION

Hazard Not Otherwise Classified (HNOC): None

Target Organs: Eyes, Kidneys, Liver, Heart, Central nervous system

Signal Words: Danger

Pictograms:

GHS Classification:

Flammable liquids	Category 2
Acute toxicity, Oral	Category 3
Acute toxicity, Inhalation	Category 3
Acute toxicity, Dermal	Category 3
Skin irritation	Category 2
Eye irritation	Category 2A
Specific target organ toxicity – single exposure	Category 1

GHS Label Elements, including precautionary statements:

Hazard Statements:

H225	Highly flammable liquid and vapor.
H301+H311	Toxic if swallowed or in contact with skin.
H315	Causes skin irritation.

H319	Causes serious eye irritation.
H331	Toxic if inhaled.
H370	Causes damage to organs.

Precautionary Statements:

P210	Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P233	Keep container tightly closed.
P240	Ground/Bond container and receiving equipment.
P241	Use explosion-proof electrical/ventilating/lighting/equipment.
P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.
P264	Wash hands thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P271	Use in a well-ventilated area.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301+P312	IF SWALLOWED: Call a POISON CENTER/doctor/physician if you feel unwell.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P330	Rinse mouth.
P332+P313	If skin irritation occurs: Get medical advice/attention.
P337+P313	If eye irritation persists: Get medical advice/attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P370+P378	In case of fire: Use appropriate media to extinguish.
P403+P235	Store in a well-ventilated place. Keep cool.
P501	Dispose of contents/container in accordance with local regulations.

Potential Health Effects

Eyes	Causes irritation.
Inhalation	Toxic if inhaled. Causes respiratory tract irritation
Skin	Toxic if absorbed through skin. Causes skin irritation.
Ingestion	Toxic if swallowed.

NFPA Ratings

Health	2
Flammability	3
Reactivity	0
Specific hazard	Not Available

HMIS Ratings

Health	2
Fire	3
Reactivity	0

3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	Weight %	CAS #	EINECS# / ELINCS#	Formula	Molecular Weight
Potassium Hydroxide	<1	1310-58-3	215-181-3	KOH	56.11 g/mol
Methyl Alcohol	>95	67-56-1	200-659-6	CH_3OH	32.04 g/mol

4. FIRST- AID MEASURES

Eyes	Immediately rinse with plenty of water for at least 15 minutes and seek medical attention.
Inhalation	Move casualty to fresh air and keep at rest. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention.
Skin	Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and wash using soap. Get medical attention.
Ingestion	**Do Not Induce Vomiting!** Never give anything by mouth to an unconscious person. If conscious, wash out mouth with water. Get medical attention.

5. FIREFIGHTING MEASURES

Suitable (and unsuitable) extinguishing media	Flammable liquid. Use carbon dioxide, alcohol-type foam or dry chemical. Containers may explode in a fire. Cool containers from a distance using water spray.
Special protective equipment and precautions for firefighters	Wear self-contained, approved breathing apparatus and full protective clothing, including eye protection and boots.
Specific hazards arising from the chemical	Containers may rupture in the heat of the fire. Do not use direct stream, as it may spread the fire. Emits toxic fumes (carbon oxides, potassium oxides) under fire conditions. Vapors may collect in low areas. (See also Stability and Reactivity section.)

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	See section 8 for recommendations on the use of personal protective equipment.
Environmental precautions	Prevent spillage from entering drains. Any release to the environment may be subject to a federal/national or local reporting requirements.
Methods and materials for containment and cleaning up	Absorb spill with noncombustible absorbent material, then place in a suitable container for disposal. Clean surfaces thoroughly with water to remove residual contamination. Dispose of all waste and cleanup materials in accordance with regulations.

7. HANDLING AND STORAGE

Precautions for safe handling
Avoid contact with skin and eyes. Avoid inhalation of vapor or mist. Remove all sources of ignition. Beware of vapors accumulating to form explosive concentrations. See section 8 for recommendations on the use of personal protective equipment. Use with adequate ventilation. Wash thoroughly after using. Keep container closed when not in use.

Conditions for safe storage, including any incompatibilities
Store in a cool, dry, well ventilated area. Keep away from incompatible materials (see section 10 for incompatibilities).

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Occupational exposure controls: Ventilation and appropriate grounding of containers

Component	Exposure Limits	Basis	Entity
Methyl Alcohol	200 ppm 262 mg/m^3	TLV	ACGIH
	250 ppm 328 mg/m^3	STEL	ACGIH
	200 ppm 260 mg/m^3	PEL	OSHA
	200 ppm 260 mg/m^3	REL	NIOSH
	250 ppm 325 mg/m^3	STEL	NIOSH
Potassium Hydroxide	2 mg/m^3	CEIL	ACGIH
	2 mg/m^3	CEIL	NIOSH

TWA: Time Weighted Average over 8 hours of work.
TLV: Threshold Limit Value over 8 hours of work.
REL: Recommended Exposure Limit
PEL: Permissible Exposure Limit
STEL: Short Term Exposure Limit during x minutes.
IDLH: Immediately Dangerous to Life or Health
WEEL: Workplace Environmental Exposure Levels
CEIL: Ceiling

Personal Protection

Eyes	Wear chemical safety glasses with face shield if splashing is likely to occur.
Inhalation	Provide local exhaust, preferably mechanical. If exposure levels are excessive, use an approved respirator.
Skin	Wear nitrile or rubber gloves, apron or lab coat. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
Other	Not Available

Other Recommendations

Provide eyewash stations, quick-drench showers and washing facilities accessible to areas of use and handling. Have supplies and equipment for neutralization and running water available.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance (physical state, color, etc.)	Clear, colorless liquid.
Odor	Mild alcohol odor.
Odor threshold	Not Available
pH	Not Available
Melting point/freezing point	Not Available
Initial boiling point and boiling range	Not Available
Flash point	Not Available
Evaporation rate	Not Available
Flammability (solid, gas)	Flammable
Upper/lower flammability or explosive limit	Not Available
Vapor pressure	Not Available
Vapor density	Not Available
Relative density	0.79-0.80
Solubility (ies)	Completely soluble in water
Partition coefficient: n-octanol/water	Not Available
Auto-ignition temperature	Not Available
Decomposition temperature	Not Available

10. STABILITY AND REACTIVITY

Chemical Stability	Stable
Possibility of Hazardous Reactions	Will not occur.
Conditions to Avoid	Keep away from heat, flame and sparks.
Incompatible Materials	Do not store with strong oxidizing agents, strong acids, peroxides, aldehydes, halogens, ammonia, acid anhydrides or alkali metals.
Hazardous Decomposition Products	Carbon oxides, potassium oxides.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Methanol

Skin	LD50 Dermal- rabbit- 15,800 mg/kg
Eyes	Eyes- rabbit- Eye irritation- 24 hour
Respiratory	LC_{50} rat- 85 mg/L, 4 hours LC_{50} rat- 64000 ppm, 4 hours
Ingestion	LD_{50} rat- 5,628 mg/kg

Potassium Hydroxide

Skin	Not Available
Eyes	Not Available
Respiratory	Not Available
Ingestion	LD50 – Rat – 4,136 mg/kg

Carcinogenicity

IARC	No components of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
ACGIH	No components of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
NTP	No components of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
OSHA	No components of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Signs & Symptoms of Exposure

Skin	Damage depends on duration of contact and can include burning, itching, redness, inflammation, swelling.
Eyes	Eye burns, watering eyes, redness.
Respiratory	Burning, choking, coughing, wheezing, laryngitis, shortness of breath, headache.
Ingestion	Burning, choking, nausea, vomiting, severe pain.

Chronic Toxicity	Not Available
Teratogenicity	Not Available
Mutagenicity	Not Available
Embryotoxicity	Not Available
Target Organ(s)	Single exposure- Causes damage to organs.
Reproductive Toxicity	Not Available
Respiratory/Skin Sensitization	Not Available

12. ECOLOGICAL INFORMATION

Ecotoxicity

Methanol

Aquatic Vertebrate	Do not release directly into surface water LC_{50}= 15,400 mg/L, 96 hours (Lepomis Macrochirus) LC50- Oncorhynchus mykiss (rainbow trout)- 19,000 mg/l- 96 h LC50- Cyprinus carpio (Carp)- 36,000.00 mg/l- 48 h
Aquatic Invertebrate	EC50- Daphnia magna (Water flea)- 24,500.00 mg/l- 48 h EC100- Daphnia magna (Water flea)- 10,000.00 mg/l- 24 h
Terrestrial	Not Available

Potassium Hydroxide

Aquatic Vertebrate	Not Available
Aquatic Invertebrate	Not Available
Terrestrial	Not Available

Persistence and Degradability	Not Available
Bioaccumulative Potential	Not Available
Mobility in Soil	Not Available
PBT and vPvB Assessment	Not Available
Other Adverse Effects	Not Available

13. DISPOSAL CONSIDERATIONS

Waste Product or Residues	Users should review their operations in terms of the applicable federal/national or local regulations and consult with appropriate regulatory agencies if necessary before disposing of waste product or residue.
Product Containers	Users should review their operations in terms of the applicable federal/national or local regulations and consult with appropriate regulatory agencies if necessary before disposing of waste product container.

The information offered in section 13 is for the product as shipped. Use and/or alterations to the product may significantly change the characteristics of the material and alter the waste classification and proper disposal methods.

14. TRANSPORTATION INFORMATION

US DOT	UN1230, Methanol solution, 3, pg II
TDG	UN1230, METHANOL SOLUTION, 3, PG II
IMDG	UN1230, METHANOL SOLUTION, 3, PG II
Marine Pollutant	No
IATA/ICAO	UN1230, Methanol solution, 3 pg II

15. REGULATORY INFORMATION

TSCA Inventory Status	All ingredients are listed on the TSCA Active inventory.
DSL / NDSL	All ingredients are listed on the DSL inventory.
California Proposition 65	Listed: Methyl Alcohol
Rhode Island: Hazardous Substance List	Listed: Methyl Alcohol, Potassium Hydroxide
Massachusetts: Toxic or Hazardous Substance List, Right to Know	Listed: Methyl Alcohol, Potassium Hydroxide

Pennsylvania: Hazardous Substance List	Listed: Methyl Alcohol, Potassium Hydroxide
New Jersey: Right to Know Hazardous Substance List	Listed: Methyl Alcohol, Potassium Hydroxide
SARA 302	Not Listed
SARA 304	Not Listed
SARA 311	Fire Hazard, Acute Health Hazard, Chronic Health Hazard.
SARA 312	Fire Hazard, Acute Health Hazard, Chronic Health Hazard.
SARA 313	Not Listed
WHMIS Canada	Class B2: Flammable and combustible material – Flammable liquid. Class D1B: Poisonous and infectious material – Immediate and serious effects – Toxic. Class D2A: Poisonous and infectious material – Other effects – Very toxic. Class E: Corrosive material.

15. OTHER INFORMATION

Revision	Date
Original	02/27/2013
Revision 1	09/27/2018
Revision 2	03/21/2022