

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Revision date: 08/23/2013 Supersedes: 02/06/2010 Version: 1.0

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY

<u>Product Identifier</u> <u>Product form:</u> Mixture

Product name: Ecopol Buffer-H Synonyms: High pH buffer Intended Use Of The Product

Use of the substance/preparation: pH Buffering Agent. For professional use only.

Name, Address, And Telephone Of The Responsible Party

Economy® Polymers & Chemicals

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Emergency Telephone Number

Emergency number : CHEMTREC 1-800-424-9300 (US); 703-527-3887 (International, collect calls accepted)

SECTION 2: HAZARDS IDENTIFICATION

Classification Of The Substance Or Mixture

Classification (GHS-US)

Skin Corr. 1A H314 Eye Dam. 1 H318

Label Elements

GHS-US labeling

Hazard pictograms (GHS-US)



Signal word (GHS-US) : Danger

Hazard statements (GHS-US) : H314 - Causes severe skin burns and eye damage

H318 - Causes serious eye damage

Precautionary statements (GHS-

US)

: P260 - Do not breathe vapors, mist, spray.

P264 - Wash hands, forearms and other exposed areas thoroughly after handling. P280 - Wear protective gloves, protective clothing, eye protection, and face protection.

P301+P330+P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting

P303+P361+P353 - IF ON SKIN (or hair): Remove/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. P310 - Immediately call a POISON CENTER or doctor

P321 - Specific treatment (see section 4)

P363 - Wash contaminated clothing before reuse

P405 - Store locked up

P501 - Dispose of contents/container according to local, regional, national, territorial,

provincial, and international regulations.

Other Hazards

Other hazards not contributing to the classification: People with pre-existing eye problems, skin disorders, or respiratory issues may be more susceptible to the effects of this product. This product is HIGHLY CORROSIVE and likely to cause damage to any

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exposed areas of the body, not just the skin and eyes but also the lungs, esophagus, mouth, etc.

Unknown acute toxicity (GHS US) Not available

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Mixture

Name	Product identifier	% (w/w)	Classification (GHS-US)
Potassium carbonate	(CAS No.) 584-08-7	10 - 20	Acute Tox. 4 (Oral), H302
			Skin Irrit. 2, H315
			Eye Irrit. 2A, H319
			STOT SE 3, H335
Potassium hydroxide	(CAS No.) 1310-58-3	5 - 10	Met. Corr. 1, H290
			Acute Tox. 3 (Oral), H301
			Skin Corr. 1A, H314
			Eye Dam. 1, H318

Full text of H-phrases: see section 16

SECTION 4: FIRST AID MEASURES

Description Of First Aid Measures

General: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

Inhalation: When symptoms occur: go into open air and ventilate suspected area. Remove to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.

Skin Contact: Remove contaminated clothing. Drench affected area with water for at least 15 minutes. Immediately call a POISON CENTER or doctor/physician. Wash contaminated clothing before reuse.

Eye Contact: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.

Ingestion: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician.

Most Important Symptoms And Effects Both Acute and Delayed

General: Causes severe skin burns and eye damage. Effects of exposure (inhalation, ingestion or skin contact) to substance may be delayed.

Inhalation: Inhalation of vapor and/or mist may cause respiratory irritation and sensitization.

Skin Contact: Corrosive. Causes burns. **Eye Contact:** Causes serious eye damage.

Ingestion: May cause burns or irritation of the linings of the mouth, throat, and gastrointestinal tract. May cause nausea, vomiting,

and diarrhea.

Chronic symptoms: Prolonged skin contact will severely corrode skin.

Indication Of Any Immediate Medical Attention And Special Treatment Needed

If exposed or concerned, get medical advice and attention.

SECTION 5: FIREFIGHTING MEASURES

Extinguishing Media

Suitable extinguishing media: Not flammable. Use extinguishing media appropriate for surrounding fire.

Unsuitable extinguishing media: Do not use a heavy water stream.

Special Hazards Arising From The Substance Or Mixture

Fire hazard: Not considered flammable but may burn at high temperatures.

Explosion hazard: Product is not explosive, however in contact with incompatabilities may release explosive hydrogen gas.

Reactivity: Thermal decomposition generates: corrosive vapors. Adding water to solution may generate large amounts of heat.

Advice For Firefighters

Precautionary measures fire: Exercise caution when fighting any chemical fire.

Firefighting instructions: Do not allow run-off from fire fighting to enter drains or water courses.

Protection during firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.

Hazardous Combustion Products: Potassium oxides. Carbon oxides (CO, CO₂).

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Reference To Other Sections

Refer to section 9 for flammability properties.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment And Emergency Procedures

General measures: Do not get in eyes, on skin, or on clothing. Do NOT breathe (vapor, mist, gas).

For Non-Emergency Personnel

Protective equipment: Use appropriate personal protection equipment (PPE).

Emergency procedures: Evacuate unnecessary personnel.

For Emergency Personnel

Protective equipment: Equip cleanup crew with proper protection.

Emergency procedures: Ventilate area.

Environmental Precautions

Prevent entry to sewers and public waters.

Methods And Material For Containment And Cleaning Up

For containment: Neutralize with an acid. Pick up diluted material in inert material, and place in a suitable container. Do not flush remaining material or residues into sewers.

Methods for cleaning up: Clear up spills immediately and dispose of waste safely.

Reference To Other Sections

See heading 8, Exposure Controls and Personal Protection.

SECTION 7: HANDLING AND STORAGE

Precautions For Safe Handling

Hygiene measures: Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking, or smoking and again when leaving work. Do no eat, drink or smoke when using this product.

Conditions For Safe Storage, Including Any Incompatibilities

Technical measures: Comply with applicable regulations. Container remains hazardous when empty. Continue to observe all precautions.

Storage conditions: Store in a dry, cool and well-ventilated place. Keep container closed when not in use.

Incompatible materials: Strong acids. Strong bases. Strong oxidizers. Metals. Organic materials.

Specific End Use(s) pH Buffering Agent

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

Potassium hydroxide (1310-58-3)		
USA ACGIH	ACGIH Ceiling (mg/m³)	2 mg/m³
USA NIOSH	NIOSH REL (ceiling) (mg/m ³)	2 mg/m³
Alberta	OEL Ceiling (mg/m³)	2 mg/m³
British Columbia	OEL Ceiling (mg/m³)	2 mg/m³
Manitoba	OEL Ceiling (mg/m³)	2 mg/m³
New Brunswick	OEL Ceiling (mg/m³)	2 mg/m³
Newfoundland & Labrador	OEL Ceiling (mg/m³)	2 mg/m³
Nova Scotia	OEL Ceiling (mg/m³)	2 mg/m³
Nunavut	OEL Ceiling (mg/m³)	2 mg/m³
Northwest Territories	OEL Ceiling (mg/m³)	2 mg/m³
Ontario	OEL Ceiling (mg/m³)	2 mg/m³
Prince Edward Island	OEL Ceiling (mg/m³)	2 mg/m³
Québec	PLAFOND (mg/m³)	2 mg/m³
Saskatchewan	OEL Ceiling (mg/m³)	2 mg/m³
Yukon	OEL Ceiling (mg/m³)	2 mg/m³

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Exposure Controls

Appropriate engineering controls: Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapor or mists below the applicable workplace exposure limits indicated below.

Personal protective equipment: Face shield. Protective clothing. Head/neck protection. Gloves. Protective goggles.











Materials for protective clothing: Chemically resistant materials and fabrics.

Hand protection: Wear chemically resistant protective gloves.

Eye protection: Chemical goggles or face shield.

Skin and body protection: Wear suitable protective clothing.

Respiratory protection: Use NIOSH-approved air-purifying or supplied-air respirator where airborne concentrations of vapor or

mist are expected to exceed exposure limits.

Other information: When using, do not eat, drink or smoke.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Information On Basic Physical And Chemical Properties

Physical state : Liquid
Appearance : Clear

Odor: Not availableOdor threshold: Not available

pH : 13 - 14

Relative evaporation rate (butyl acetate=1) Not available -10 °C (14°F) Melting point Freezing point Not available **Boiling point** Not available > 100 °C (212°F) Flash point **Auto-ignition temperature** Not available **Decomposition Temperature** Not available Flammability (solid, gas) Not available Lower flammable limit Not available Upper flammable limit Not available Vapor pressure Not available Relative vapor density at 20 °C Not available Relative density Not available Density 9.85 lb/gal Specific gravity density 1.18

Solubility:Not availableLog Pow:Not availableLog Kow:Not availableViscosity, kinematic:Not availableViscosity, dynamic:Not availableExplosion data - sensitivity to mechanical impact:Not availableExplosion data - sensitivity to static discharge:Not available

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SECTION 10: STABILITY AND REACTIVITY

Reactivity Thermal decomposition generates: corrosive vapors. Adding water to solution may generate large amounts of heat.

Chemical Stability Stable under normal conditions.

Possibility Of Hazardous Reactions Corrosive substances in contact with metals may produce flammable hydrogen gas.

Conditions To Avoid Direct sunlight. Extremely high or low temperatures.

Incompatible Materials Organic materials. Metals. Oxidizers. Strong bases. Strong acids.

Hazardous Decomposition Products Carbon oxides (CO, CO2). Corrosive vapors. Potassium oxides.

SECTION 11: TOXICOLOGICAL INFORMATION

Information On Toxicological Effects - Product

Acute toxicity : Not classified

LD50 and LC50 Data: Not available

Skin corrosion/irritation: Causes severe skin burns and eye damage. (pH: 13 – 14)

Serious eye damage/irritation: Causes serious eye damage. (pH: 13 – 14)

Respiratory or skin sensitization: Not classified

Germ cell mutagenicity: Not classified

Teratogenicity: Not available **Carcinogenicity**: Not classified

Specific target organ toxicity (repeated exposure): Not classified

Reproductive toxicity: Not classified

Specific target organ toxicity (single exposure): Not classified

Aspiration hazard: Not classified

Symptoms/injuries after inhalation: Inhalation of vapor and/or mist may cause respiratory irritation and sensitization.

Symptoms/injuries after skin contact: Corrosive. Causes burns.

Symptoms/injuries after eye contact: Causes serious eye damage. Causes severe irritation which will progress to chemical burns. **Symptoms/injuries after ingestion**: May cause burns or irritation of the linings of the mouth, throat, and gastrointestinal tract. May

cause nausea, vomiting, and diarrhea.

Chronic symptoms: Prolonged skin contact will severely corrode tissue and skin.

Information On Toxicological Effects - Ingredient(s)

LD50 and LC50 Data

Potassium carbonate (584-08-7)	
LD50 oral rat	1870 mg/kg
	G, G
Potassium hydroxide (1310-58-3)	5. 5

SECTION 12: ECOLOGICAL INFORMATION

Toxicity

Potassium hydroxide (1310-58-3)	
LC50 fish 1	80 mg/l (Exposure time: 96 h - Species: Gambusia affinis [static])

Persistence And Degradability

Ecopol Buffer-H	
Persistence and degradability	Not established.

Bioaccumulative Potential

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Ecopol Buffer-H	
Bioaccumulative potential	Not established.
Potassium hydroxide (1310-58-3)	
Log Pow	0.65

Mobility In Soil Not available

Other Adverse Effects

Other information: Avoid release to the environment.

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SECTION 13: DISPOSAL CONSIDERATIONS

Waste disposal recommendations: Do not allow material to enter sewers or waterways. Dispose of waste material in accordance with all local, regional, national, provincial, territorial and international regulations.

SECTION 14: TRANSPORT INFORMATION

In accordance with ICAO/IATA/DOT/TDG

UN Number
UN-No.(DOT): 1760
DOT NA no.: UN1760

UN Proper Shipping Name

UN technical shipping descriptor : Corrosive Liquids, n.o.s. (contains potassium hydroxide)

Department of Transportation (DOT) Hazard Classes : 8 - Class 8 - Corrosive material 49 CFR 173.136

Hazard labels (DOT) : 8



DOT Symbols : G - Identifies PSN requiring a technical name

Packing group (DOT) : III - Minor Danger

DOT Special Provisions (49 CFR 172.102) : B2 - MC 300, MC 301, MC 302, MC 303, MC 305, and MC 306 and DOT 406

cargo tanks are not authorized.

IB2 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized.

T11 - 6 178.274(d)(2) Normal..... 178.275(d)(3)

TP2 - a. The maximum degree of filling must not exceed the degree of filling determined by the following: (image) Where: tr is the maximum mean bulk temperature during transport, tf is the temperature in degrees celsius of the liquid during filling, and is the mean coefficient of cubical expansion of the liquid between the mean temperature of the liquid during filling (tf) and the maximum mean bulk temperature during transportation (tr) both in degrees celsius. b. For liquids transported under ambient conditions may be calculated using the formula: (image) Where: d15 and d50 are the densities (in units of mass per unit volume) of the liquid at 15 C (59 F) and 50 C (122 F), respectively.

TP27 - A portable tank having a minimum test pressure of 4 bar (400 kPa) may be used provided the calculated test pressure is 4 bar or less based on the MAWP of the hazardous material, as defined in 178.275 of this subchapter, where the test pressure is 1.5 times the MAWP.

DOT Packaging Exceptions (49 CFR 173.xxx) : 154
DOT Packaging Non Bulk (49 CFR 173.xxx) : 202
DOT Packaging Bulk (49 CFR 173.xxx) : 242

Additional informationERG Guide No. 154Overland transportNot regulated for transport

Transport by sea

DOT Vessel Stowage Location: B - (i) The material may be stowed "on deck" or "under deck" on a cargo vessel and on a

passenger vessel carrying a number of passengers limited to not more than the larger of 25 passengers, or one passenger per each 3 m of overall vessel length; and (ii) "On deck only" on passenger vessels in which the number of passengers specified in paragraph (k)(2)(i) of this

section is exceeded.

DOT Vessel Stowage Other : 40 - Stow "clear of living quarters"

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Air transport

DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) : 1 L

DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) : 30 L

SECTION 15: REGULATORY INFORMATION

US Federal regulations

Potassium carbonate (584-08-7)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Potassium hydroxide (1310-58-3)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

US State regulations

Potassium carbonate (584-08-7)

- U.S. Texas Effects Screening Levels Long Term
- U.S. Texas Effects Screening Levels Short Term

Potassium hydroxide (1310-58-3)

- U.S. Connecticut Hazardous Air Pollutants HLVs (30 min)
- U.S. Connecticut Hazardous Air Pollutants HLVs (8 hr)
- U.S. Delaware Pollutant Discharge Requirements Reportable Quantities
- U.S. Hawaii Occupational Exposure Limits Ceilings
- U.S. Idaho Non-Carcinogenic Toxic Air Pollutants Acceptable Ambient Concentrations
- U.S. Idaho Non-Carcinogenic Toxic Air Pollutants Emission Levels (ELs)
- U.S. Louisiana Reportable Quantity List for Pollutants
- U.S. Massachusetts Oil & Hazardous Material List Groundwater Reportable Concentration Reporting Category 1
- U.S. Massachusetts Oil & Hazardous Material List Groundwater Reportable Concentration Reporting Category 2
- U.S. Massachusetts Oil & Hazardous Material List Reportable Quantity
- U.S. Massachusetts Oil & Hazardous Material List Soil Reportable Concentration Reporting Category 1
- U.S. Massachusetts Oil & Hazardous Material List Soil Reportable Concentration Reporting Category 2
- U.S. Massachusetts Right To Know List
- U.S. Massachusetts Toxics Use Reduction Act
- U.S. Michigan Occupational Exposure Limits Ceilings
- U.S. Michigan Polluting Materials List
- U.S. Minnesota Hazardous Substance List
- U.S. Minnesota Permissible Exposure Limits Ceilings
- U.S. New Hampshire Regulated Toxic Air Pollutants Ambient Air Levels (AALs) 24-Hour
- U.S. New Hampshire Regulated Toxic Air Pollutants Ambient Air Levels (AALs) Annual
- U.S. New Jersey Discharge Prevention List of Hazardous Substances
- U.S. New Jersey Right to Know Hazardous Substance List
- U.S. New Jersey Special Health Hazards Substances List
- U.S. New York Reporting of Releases Part 597 List of Hazardous Substances
- U.S. North Dakota Air Pollutants Guideline Concentrations 1-Hour
- U.S. Pennsylvania RTK (Right to Know) Environmental Hazard List
- U.S. Pennsylvania RTK (Right to Know) List
- U.S. Tennessee Occupational Exposure Limits Ceilings
- U.S. Texas Effects Screening Levels Long Term
- U.S. Texas Effects Screening Levels Short Term
- U.S. Vermont Permissible Exposure Limits Ceilings
- U.S. Washington Permissible Exposure Limits Ceilings
- U.S. Wisconsin Hazardous Air Contaminants All Sources Emissions From Stack Heights 25 Feet to Less Than 40 Feet
- U.S. Wisconsin Hazardous Air Contaminants All Sources Emissions From Stack Heights 40 Feet to Less Than 75 Feet
- U.S. Wisconsin Hazardous Air Contaminants All Sources Emissions From Stack Heights 75 Feet or Greater
- U.S. Wisconsin Hazardous Air Contaminants All Sources Emissions From Stack Heights Less Than 25 Feet

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Canadian regulations

Ecopol Buffer-H

WHMIS Classification Class E - Corrosive Material



Potassium carbonate (584-08-7)

Listed on the Canadian DSL (Domestic Substances List) inventory.

Listed on the Canadian Ingredient Disclosure List

WHMIS Classification Class D Division 2 Subdivision B - Toxic material causing other toxic effects

Class E - Corrosive Material

Potassium hydroxide (1310-58-3)

Listed on the Canadian DSL (Domestic Substances List) inventory.

Listed on the Canadian Ingredient Disclosure List

WHMIS Classification Class D Division 1 Subdivision B - Toxic material causing immediate and serious toxic effects

Class E - Corrosive Material

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by CPR.

SECTION 16: OTHER INFORMATION

Indication of changes : 08/23/2013

Other information : This document has been prepared in accordance with the SDS requirements of the

OSHA Hazard Communication Standard 29 CFR 1910.1200.

GHS Full Text Phrases:

Acute Tox. 3 (Oral)	Acute toxicity (oral) Category 3
Acute Tox. 4 (Oral)	Acute toxicity (oral) Category 4
Eye Dam. 1	Serious eye damage/eye irritation Category 1
Eye Irrit. 2A	Serious eye damage/eye irritation Category 2A
Met. Corr. 1	Corrosive to metals Category 1
Skin Corr. 1A	skin corrosion/irritation Category 1A
Skin Irrit. 2	skin corrosion/irritation Category 2
STOT SE 3	Specific target organ toxicity (single exposure) Category 3
H290	May be corrosive to metals
H301	Toxic if swallowed
H302	Harmful if swallowed
H314	Causes severe skin burns and eye damage
H315	Causes skin irritation
H318	Causes serious eye damage
H319	Causes serious eye irritation
H335	May cause respiratory irritation

Party Responsible For The Preparation Of This Document:

Economy Polymers & Chemicals

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This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

North America GHS US 2012 & WHMIS

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