

## SECTION 1: IDENTIFICATION

### Product Identifier

**Product Form:** Mixture

**Product Name:** Potassium Hydroxide Pellets, ACS, NF

**Other Generic Names:** Caustic Potash; Potash Lye

### Intended Use of the Product

Food and Pharmaceutical Ingredient. Food additive, acid neutralization, industrial use.

### Name, Address, and Telephone of the Responsible Party

#### **Manufacturer**

CHEMTRADE LOGISTICS INC.

155 Gordon Baker Road

Suite 300

Toronto, Ontario M2H 3N5

For SDS Info: (416) 496-5856

www.chemtradelogistics.com

### Emergency Telephone Number

**Emergency Number** : Canada: CANUTEC +1-613-996-6666 / US: CHEMTREC +1-800-424-9300

Chemtrade Emergency Contact: (866) 416-4404

For Chemical Emergency, Spill, Leak, Fire, Exposure, or Accident, call CHEMTREC – Day or Night

## SECTION 2: HAZARDS IDENTIFICATION

### Classification of the Substance or Mixture

#### **Classification (GHS-US)**

Met. Corr. 1 H290

Acute Tox. 4 (Oral) H302

Skin Corr. 1A H314

Eye Dam. 1 H318

Full text of H-phrases: see section 16

### Label Elements

#### **GHS-US Labeling**

#### **Hazard Pictograms (GHS-US)**



#### **Signal Word (GHS-US)**

: Danger

#### **Hazard Statements (GHS-US)**

: H290 - May be corrosive to metals

H302 - Harmful if swallowed

H314 - Causes severe skin burns and eye damage

H318 - Causes serious eye damage

#### **Precautionary Statements (GHS-US)**

: P234 - Keep only in original container.

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

P264 - Wash hands, forearms, and other exposed areas thoroughly after handling.

P270 - Do not eat, drink or smoke when using this product.

P280 - Wear protective gloves, protective clothing, and eye protection.

P301+P312 - IF SWALLOWED: Call a poison center or doctor if you feel unwell.

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

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 at rest in a position

comfortable for breathing.

P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove

# Potassium Hydroxide Pellets, ACS, NF

## Safety Data Sheet

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

contact lenses, if present and easy to do. Continue rinsing.  
P310 - Immediately call a poison center or doctor.  
P321 - Specific treatment (see section 4 on this SDS).  
P330 - Rinse mouth.  
P363 - Wash contaminated clothing before reuse.  
P390 - Absorb spillage to prevent material damage.  
P405 - Store locked up.  
P406 - Store in corrosive resistant container with a resistant inner liner.  
P501 - Dispose of contents/container in accordance with local, regional, national, territorial, provincial, and international regulations.

### Other Hazards

**Other Hazards Not Contributing to the Classification:** This product is a strong base with a pH of 14 (5% solution). Never pour water into this substance; when dissolving or diluting always add it slowly to the water.

**Unknown Acute Toxicity (GHS-US)** Not available

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Name	Product identifier	% (w/w)	Classification (GHS-US)
Potassium hydroxide	(CAS No) 1310-58-3	60 - 100	Met. Corr. 1, H290 Acute Tox. 4 (Oral), H302 Skin Corr. 1A, H314 Eye Dam. 1, H318
Water	(CAS No) 7732-18-5	< 0.1 0.1 - 1 1 - 5 5 - 10 10 - 30	Not classified
Carbonic acid, dipotassium salt	(CAS No) 584-08-7	< 0.1 0.1 - 1 1 - 5	Skin Irrit. 2, H315 Eye Irrit. 2A, H319 STOT SE 3, H335

\* More than one of the ranges of concentration prescribed by Controlled Products Regulations has been used where necessary, due to varying composition. The specific chemical identity and/or exact percentage of composition has been withheld as a trade secret within the meaning of the OSHA Hazard Communication Standard [29 CFR 1910.1200].

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 exposed or concerned: Get medical advice/attention. Show label if possible.

**Inhalation:** 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 60 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 for at least 60 minutes. 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:** Harmful if swallowed. Causes severe skin burns and eye damage. Causes serious eye damage. Effects of exposure (inhalation, ingestion or skin contact) to substance may be delayed.

**Inhalation:** Inhalation may cause immediate severe irritation progressing quickly to chemical burns.

**Skin Contact:** Causes severe skin burns. Redness. Pain. Blisters. Permanent damage.

**Eye Contact:** Causes serious eye damage. Causes permanent damage to the cornea, iris, or conjunctiva. Can cause blindness.

**Ingestion:** Harmful if swallowed. Swallowing a small quantity of this material will result in serious health hazard.

**Chronic Symptoms:** None known.

# Potassium Hydroxide Pellets, ACS, NF

## Safety Data Sheet

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

### **Indication of Any Immediate Medical Attention and Special Treatment Needed**

If you feel unwell, seek medical advice (show the label where possible).

## **SECTION 5: FIRE-FIGHTING MEASURES**

### **Extinguishing Media**

**Suitable Extinguishing Media:** Use extinguishing media appropriate for surrounding fire. Dry powder, alcohol-resistant foam, water in large amounts, carbon dioxide (CO<sub>2</sub>).

**Unsuitable Extinguishing Media:** Do not use a heavy water stream. Use of heavy stream of water may spread fire.

### **Special Hazards Arising From the Substance or Mixture**

**Fire Hazard:** Not flammable.

**Explosion Hazard:** Product is not explosive, however in contact with incompatibilities may release explosive hydrogen gas.

**Reactivity:** Reacts exothermically with some acids. Reacts violently with water. Corrosive to metals. In contact with metals, emits flammable/explosive gas.

### **Advice for Firefighters**

**Precautionary Measures Fire:** Exercise caution when fighting any chemical fire.

**Firefighting Instructions:** Use water spray or fog for cooling exposed containers. Water may be ineffective to fight fire, but water should be used to keep exposed containers cool. Do not breath fumes from fires or vapors from decomposition. Do not allow run-off from firefighting to enter drains or water courses.

**Protection During Firefighting:** Do not enter fire area without proper protective equipment, including respiratory protection.

**Hazardous Combustion Products:** Corrosive vapors.

**Other Information:** Potassium hydroxide reacts exothermically with water. Water spray may be ineffective.

### **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:** Avoid all contact with skin, eyes, or clothing. Avoid breathing dust.

#### **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. Evacuate unnecessary personnel. Stop leak if safe to do so.

### **Environmental Precautions**

Prevent entry to sewers and public waters.

### **Methods and Material for Containment and Cleaning Up**

**For Containment:** Contain and collect as any solid.

**Methods for Cleaning Up:** Clean up spills immediately and dispose of waste safely. Cautiously neutralize spill. Take up mechanically (sweeping, shoveling) and collect in suitable container for disposal. For liquid spill, cautiously neutralize spill, absorb and/or contain spill with inert material, then place in suitable container. Do not take up in combustible material such as: saw dust or cellulosic material. Contact competent authorities after a spill.

### **Reference to Other Sections**

See heading 8, Exposure Controls and Personal Protection. Concerning disposal elimination after cleaning, see item 13.

## **SECTION 7: HANDLING AND STORAGE**

### **Precautions for Safe Handling**

**Additional Hazards When Processed:** May be corrosive to metals.

**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 not eat, drink or smoke when using this product. Always wash your hands immediately after handling this product, and once again before leaving the workplace.

### **Conditions for Safe Storage, Including Any Incompatibilities**

**Technical Measures:** Comply with applicable regulations.

# Potassium Hydroxide Pellets, ACS, NF

## Safety Data Sheet

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

**Storage Conditions:** Store in a dry, cool and well-ventilated place. Keep container closed when not in use. Store in original container or corrosive resistant and/or lined container. Keep/Store away from direct sunlight, extremely high or low temperatures and incompatible materials.

**Incompatible Materials:** Heat sources. Strong acids. Strong oxidizers. Halogens. Organic materials. Lead. Aluminum. Copper. Tin. Zinc. Bronze. Metals.

**Specific End Use(s)** Food and Pharmaceutical Ingredient. Food additive, acid neutralization, industrial use.

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control Parameters

For substances listed in section 3 that are not listed here, there are no established Exposure limits from the manufacturer, supplier, importer, or the appropriate advisory agency including: ACGIH (TLV), NIOSH (REL), OSHA (PEL), Canadian provincial governments, or the Mexican government.

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

### Exposure Controls

**Appropriate Engineering Controls:** Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure adequate ventilation, especially in confined areas. Ensure all national/local regulations are observed.

**Personal Protective Equipment:** Gloves. Protective goggles. Protective clothing. Face shield. Insufficient ventilation: wear respiratory protection.

**Materials for Protective Clothing:** Chemically resistant materials and fabrics.

**Hand Protection:** Wear chemically resistant protective gloves.

**Eye Protection:** Chemical safety goggles and face shield.

**Skin and Body Protection:** Wear suitable protective clothing.

**Respiratory Protection:** If exposure limits are exceeded or irritation is experienced, approved respiratory protection should be worn.

**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	: Solid
Appearance	: Opaque white solid
Odor	: None
Odor Threshold	: Not available
pH	: 14 (5% Solution)
Melting Point	: 318.4 °C (605.12 °F)
Freezing Point	: Not available
Boiling Point	: 1390 °C (2534.00 °F)
Flash Point	: Not applicable

# Potassium Hydroxide Pellets, ACS, NF

## Safety Data Sheet

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

<b>Auto-ignition Temperature</b>	: Not applicable
<b>Decomposition Temperature</b>	: Not applicable
<b>Flammability (solid, gas)</b>	: Not applicable
<b>Lower Flammable Limit</b>	: Not applicable
<b>Upper Flammable Limit</b>	: Not applicable
<b>Vapor Pressure</b>	: Not applicable
<b>Relative Vapor Density at 20 °C</b>	: Not applicable
<b>Relative Density</b>	: Not applicable
<b>Specific Gravity</b>	: 2.13
<b>Solubility</b>	: 90 g/100g water at 20°C.
<b>Partition Coefficient: N-Octanol/Water</b>	: Not available
<b>Viscosity</b>	: Not applicable
<b>Explosion Data – Sensitivity to Mechanical Impact</b>	: Not expected to present an explosion hazard due to mechanical impact.
<b>Explosion Data – Sensitivity to Static Discharge</b>	: Not expected to present an explosion hazard due to static discharge.

### SECTION 10: STABILITY AND REACTIVITY

**Reactivity:** Reacts exothermically with some acids. Reacts violently with water. Corrosive to metals. In contact with metals, emits flammable/explosive gas.

**Chemical Stability:** Stable under normal conditions.

**Possibility of Hazardous Reactions:** Hazardous polymerization will not occur.

**Conditions to Avoid:** Direct sunlight. Extremely high or low temperatures. Incompatible materials. Sources of ignition.

**Incompatible Materials:** Heat sources. Strong acids. Strong oxidizers. Halogens. Organic materials. Lead. Aluminum. Copper. Tin. Zinc. Bronze. Metals. May be corrosive to metals.

**Hazardous Decomposition Products:** Thermal decomposition generates : Corrosive vapors. Hydrogen gas. Potassium oxides. Absorbs atmospheric CO<sub>2</sub>

### SECTION 11: TOXICOLOGICAL INFORMATION

#### Information on Toxicological Effects - Product

**Acute Toxicity:** Oral: Harmful if swallowed.

**LD50 and LC50 Data:**

Potassium Hydroxide Pellets, ACS, NF	
ATE US (oral)	333.00 mg/kg body weight

**Skin Corrosion/Irritation:** Causes severe skin burns and eye damage.

pH: 14 (5% Solution)

**Serious Eye Damage/Irritation:** Causes serious eye damage.

pH: 14 (5% Solution)

**Respiratory or Skin Sensitization:** Not classified

**Germ Cell Mutagenicity:** Not classified

**Teratogenicity:** Not classified

**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

**Potential Adverse Human Health Effects and Symptoms:** Harmful if swallowed.

**Symptoms/Injuries After Inhalation:** Inhalation may cause immediate severe irritation progressing quickly to chemical burns.

**Symptoms/Injuries After Skin Contact:** Causes severe skin burns. Redness. Pain. Blisters. Permanent damage.

**Symptoms/Injuries After Eye Contact:** Causes serious eye damage. Causes permanent damage to the cornea, iris, or conjunctiva . Can cause blindness.

**Symptoms/Injuries After Ingestion:** Harmful if swallowed. Swallowing a small quantity of this material will result in serious health hazard.

**Chronic Symptoms:** None known.

# Potassium Hydroxide Pellets, ACS, NF

## Safety Data Sheet

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

### Information on Toxicological Effects - Ingredient(s)

#### LD50 and LC50 Data:

<b>Potassium hydroxide (1310-58-3)</b>	
LD50 Oral Rat	333 mg/kg
<b>Carbonic acid, dipotassium salt (584-08-7)</b>	
LD50 Oral Rat	> 2000 mg/kg
LD50 Dermal Rabbit	> 2000 mg/kg

### SECTION 12: ECOLOGICAL INFORMATION

**Toxicity** Not classified

#### Persistence and Degradability

<b>Potassium Hydroxide Pellets, ACS, NF</b>	
Persistence and Degradability	Not established.

#### Bioaccumulative Potential

<b>Potassium Hydroxide Pellets, ACS, NF</b>	
Bioaccumulative Potential	Not established.

<b>Potassium hydroxide (1310-58-3)</b>	
Log Pow	0.65

**Mobility in Soil** Not available

#### Other Adverse Effects

**Other Information:** Avoid release to the environment.

### SECTION 13: DISPOSAL CONSIDERATIONS

**Sewage Disposal Recommendations:** Do not empty into drains; dispose of this material and its container in a safe way.

**Waste Disposal Recommendations:** Dispose of waste material in accordance with all local, regional, national, provincial, territorial and international regulations.

### SECTION 14: TRANSPORT INFORMATION

#### 14.1 In Accordance with DOT

**Proper Shipping Name** : POTASSIUM HYDROXIDE, SOLID  
**Hazard Class** : 8  
**Identification Number** : UN1813  
**Label Codes** : 8  
**Packing Group** : II  
**ERG Number** : 154



#### 14.2 In Accordance with IMDG

**Proper Shipping Name** : POTASSIUM HYDROXIDE, SOLID  
**Hazard Class** : 8  
**Identification Number** : UN1813  
**Packing Group** : II  
**Label Codes** : 8  
**EmS-No. (Fire)** : F-A  
**EmS-No. (Spillage)** : S-B



#### 14.3 In Accordance with IATA

**Proper Shipping Name** : POTASSIUM HYDROXIDE, SOLID  
**Packing Group** : II  
**Identification Number** : UN1813  
**Hazard Class** : 8  
**Label Codes** : 8  
**ERG Code (IATA)** : 8L



#### 14.4 In Accordance with TDG

# Potassium Hydroxide Pellets, ACS, NF

## Safety Data Sheet

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

**Proper Shipping Name** : POTASSIUM HYDROXIDE, SOLID  
**Packing Group** : II  
**Hazard Class** : 8  
**Identification Number** : UN1813  
**Label Codes** : 8



### SECTION 15: REGULATORY INFORMATION

#### US Federal Regulations

##### Potassium Hydroxide Pellets, ACS, NF

**SARA Section 311/312 Hazard Classes** Immediate (acute) health hazard

##### Potassium hydroxide (1310-58-3)

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

##### Carbonic acid, dipotassium salt (584-08-7)

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

##### Water (7732-18-5)

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

#### US State Regulations

##### Potassium hydroxide (1310-58-3)

U.S. - Massachusetts - Right To Know List  
U.S. - New Jersey - Right to Know Hazardous Substance List  
U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List  
U.S. - Pennsylvania - RTK (Right to Know) List

#### Canadian Regulations

##### Potassium Hydroxide Pellets, ACS, NF

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



##### Potassium hydroxide (1310-58-3)

Listed on the Canadian DSL (Domestic Substances List)  
Listed on the Canadian IDL (Ingredient Disclosure List)

IDL Concentration 1 %

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

##### Carbonic acid, dipotassium salt (584-08-7)

Listed on the Canadian DSL (Domestic Substances List)  
Listed on the Canadian IDL (Ingredient Disclosure List)

IDL Concentration 1 %

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

##### Water (7732-18-5)

Listed on the Canadian DSL (Domestic Substances List)

**WHMIS Classification** Uncontrolled product according to WHMIS classification criteria

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

### SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

**Revision date** : 05/01/15  
**Other Information** : This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.

# Potassium Hydroxide Pellets, ACS, NF

## Safety Data Sheet

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

### GHS Full Text Phrases:

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
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

CHEMTRADE LOGISTICS, INC.

For SDS Info: (416) 496-5856

*Handle product with due care and avoid unnecessary contact. This information is supplied under U.S. OSHA'S "Right to Know" (29 CFR 1910.1200) and Canada's WHMIS regulations. Although certain hazards are described herein, we cannot guarantee these are the only hazards that exist. The information contained herein is based on data available to us and is believed to be true and accurate but it is not offered as a product specification. No warranty, expressed or implied, regarding the accuracy of this data, the hazards connected with the use of the product, or the results to be obtained from the use thereof, is made and Chemtrade and its affiliates assume no responsibility. Chemtrade is a member of the CIAC (Chemistry Industry Association of Canada) and adheres to the codes and principles of Responsible Care™.*



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