



Hummel Croton Inc.  
10 Harmich Rd.  
South Plainfield, NJ 07080  
www.HummelCroton.com  
Phone: 908-754-1800  
Fax: 908-754-1815

In Case Of Emergency Call Chemtrec®  
(U.S.) (800) 424-9300  
(International) (703) 527-3887

## Potassium Perchlorate Safety Data Sheet

### 1. Product and Company

Product name: Potassium Perchlorate  
Synonym: Perchloric Acid Potassium Salt  
CAS-No.: 7778-74-7  
Company: Hummel Croton Inc.  
10 Harmich Rd.  
South Plainfield, NJ 07080  
Telephone: 908-754-1800  
Fax: 908-754-1815

| HMIS Rating         |   |
|---------------------|---|
| Health              | 1 |
| Flammability        | 0 |
| Reactivity          | 3 |
| Personal Protection | E |

Emergency telephone number

Emergency Phone #: Chemtrec US: 800-424-9300  
Chemtrec International: 703-527-3887

### 2. Hazards

GHS Classification Oxidizing solids (Category 1), H271  
Acute toxicity, Oral (Category 4), H302

#### GHS Label elements

Pictogram(s)



Signal word **DANGER**

Hazard statement(s)

H271 May cause fire or explosion; strong oxidizer.

H302 Harmful if swallowed.

Precautionary statement(s)

- P210 Keep away from heat.
- P220 Keep/Store away from clothing/ combustible materials.
- P221 Take any precaution to avoid mixing with combustibles.
- P264 Wash skin thoroughly after handling.
- P270 Do not eat, drink or smoke when using this product.
- P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
- P283 Wear fire/ flame resistant/ retardant clothing.
- P301 + P312 IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell.
- P306 + P360 IF ON CLOTHING: rinse immediately contaminated clothing and skin with plenty of water before removing clothes.
- P330 Rinse mouth.
- P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.
- P371 + P380 + P375 In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.
- P501 Dispose of contents/ container to an approved waste disposal plant.

Hazards not otherwise classified (HNOC) or not covered by GHS

None.

### 3. Composition/Ingredients

Substance  
Formula:  $\text{KClO}_4$   
Molecular weight: 138.55 g/mol  
CAS-No.: 7778-74-7

| Material              | CAS       | %    | OSHA                                  | ACGIH                                 |
|-----------------------|-----------|------|---------------------------------------|---------------------------------------|
| Potassium Perchlorate | 7778-74-7 | 100% | 15 mg/m <sup>3</sup> as Nuisance Dust | 15 mg/m <sup>3</sup> as Nuisance Dust |

### 4. First Aid

**First Aid For Eye:** In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Call a physician.

**First Aid For Skin:** In case of contact, flush skin with water. Wash clothing before reuse. Call a physician if irritation occurs.

**First Aid For Inhalation:** If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

**First Aid For Ingestion:** If swallowed, call a physician immediately.

### 5. Fire Data

Flammability: Non-Flammable

Flash Point: Not Applicable

Auto Ignition: Not Applicable

Flammable Limits: Not Applicable

Extinguishing Media: Water spray

Fire Fighting Procedure: Extinguish fire with large amount of water. Containers near the heat source must be removed immediately or cooled with water. Do not smother the fire with a blanket. Do not use powder or CO<sub>2</sub>- type extinguishers.

Fire/Explosion Hazards: Explosion can occur if there is a fire in a closed space containing potassium perchlorate and a combustible material. A closed container with potassium perchlorate which is not open to the air can explode if heated above the decomposition temperature 600°C.

## 6. Accidental Release

Spill Or Leak Procedures: Utilize recommended protective clothing and equipment. Clean spills in a manner that does not disperse dust into the air. Spill area can be washed with water. Collect wash water for approved disposal. Keep from entering water or ground water.

## 7. Handling And Storage

Storage Temperatures: Store at ambient temperature

Shelf Life: Unlimited in tightly sealed container

Special Sensitivity: None.

Handling/Storage Precautions: Avoid breathing dust. Avoid getting in eyes or on skin. Wash thoroughly after handling. Store in a dry place away from direct sunlight, heat and incompatible materials. Reseal containers immediately after use. Store away from food and beverages.

## 8. Exposure Controls/Personal Protection

Eye Protection: Safety glasses or goggles.

Skin Protection: PVC gloves with impervious boots, apron or coveralls. Wash hands and face before eating, drinking or using tobacco.

Respirator: Work ambient concentrations should be monitored and if the recommended exposure limit is exceeded, a NIOSH/MSHA approved dust respirator must be worn.

Ventilation: Use local ventilation if dusting is a problem, to maintain air levels below the recommended exposure limit.

Additional Measures: Emergency showers and eye wash stations should be available. Educate and train employees in the safe handling of hazardous chemicals.

## 9. Physical And Chemical Properties

Physical Form: Crystals

Color: White

Odor: Odorless

Molecular Weight: 138.55 g/mol

Boiling Point: Decomposes above 600°C

Melting/Freezing Point: Decomposes above 600°C

Solubility In Water: 2 g/100mL @20°C  
Specific Gravity: 2.52

## 10. Stability And Reactivity

Stability: Stable  
Hazardous Polymerization: Will Not occur  
Incompatibilities: Combustible material, organic materials, fuels, metal powders, strong reducing agents.  
Instable Conditions: Excessive temperatures (see Incompatibilities).  
Decomposition Temperature: Decomposes above 600°C  
Decomposition products: Potassium Chloride, Oxygen

## 11. Toxicological Information

RTECS Number: SC9700000  
Routes of Exposure: Eye contact. Ingestion. Inhalation. Skin contact.  
Toxicity Data: Orl-Rat LD50: 2100 mg/kg Ipr-Mus LD50: 551 mg/kg  
Chronic Toxic Effects: This product has no known chronic effects. Repeated or prolonged exposure to this compound is not known to aggravate medical conditions.  
Acute Toxic Effects: Irritating to the skin and eyes on contact. Inhalation will cause irritation to the lungs and mucus membrane. Irritation to the eyes will cause watering and redness. Reddening, scaling, and itching are characteristics of skin inflammation. Follow safe industrial hygiene practices and always wear protective equipment when handling this compound.

## 12. Ecological Information

Ecotoxicity: Not available at this time.

## 13. Disposal Considerations

Waste Disposal Method: Waste disposal should be in accordance with existing federal, state and local environmental regulations.

## 14. Transportation Information

Proper Shipping Name: Potassium Perchlorate  
UN Number: 1489  
Class: 5.1  
P.G.: II  
Label Code: 5.1

## 15. Regulatory Information

OSHA Status: This product is hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29 CFR 1910.1200.  
TSCA Chemical Inventory: This compound is on the EPA Toxic Substance Control Act (TSCA) Inventory List

California Proposition 65: To the best of our knowledge, this product contains no levels of listed substances, which the State of California has found to cause cancer, birth defects or other reproductive effects.

SARA 313 Title III:

Section 320 Extremely Hazardous Substances: None

Section 311/312 Hazardous Categories: None

Section 313 Toxic Chemicals: None

## **16. Other Information**

Prepared By: Michael Richard

Date: June 1, 2015

Reason For Issue: GHS Compliance

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## Aluminum Powder Atomized Safety Data Sheet

### 1. Product and Company

Product name: Aluminum

Synonym: Aluminum Powder

CAS-No.: 7429-90-5

Company: Hummel Croton Inc.  
10 Harmich Rd.  
South Plainfield, NJ 07080

Telephone: 908-754-1800  
Fax: 908-754-1815

| HMIS Rating         |   |
|---------------------|---|
| Health              | 0 |
| Flammability        | 4 |
| Reactivity          | 1 |
| Personal Protection | E |

Emergency telephone number

Emergency Phone #: Chemtrec US: 800-424-9300  
Chemtrec International: 703-527-3887

### 2. Hazards

#### GHS Label elements

GHS Classification: Flammable Solid (Category 1), H220

Pictogram(s)



Signal word **DANGER**

Hazard statement(s)  
H228 Flammable solid.

Precautionary statement(s)

- P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.
- P240 Ground/bond container and receiving equipment.
- P241 Use explosion-proof electrical/ventilating/lighting equipment
- P280 Wear protective gloves/protective clothing/eye protection/face protection
- P370 Use for extinction: Special powder for metal fires.
- P378 Use for extinction: Dry sand.

**Hazards not otherwise classified (HNOC) or not covered by GHS**

Risk of dust explosion.

**3. Composition/Ingredients**

**Substance**

Formula: Al  
Molecular weight: 26.98 g/mol  
CAS-No.: 7429-90-5

| Material | CAS       | %       | OSHA                     | ACGIH                    |
|----------|-----------|---------|--------------------------|--------------------------|
| Aluminum | 7429-90-5 | 98-100% | 15 mg(Al)/m <sup>3</sup> | 15 mg(Al)/m <sup>3</sup> |

**4. First Aid**

**First Aid For Eye:** In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Call a physician.

**First Aid For Skin:** In case of contact, flush skin with water. Wash clothing before reuse. Call a physician if irritation occurs.

**First Aid For Inhalation:** If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

**First Aid For Ingestion:** If swallowed, call a physician immediately.

**5. Fire Data**

Flammability: Flammable

Flash Point: Not Applicable

Auto Ignition: Not determined

Flammable Limits: LEL%: 0.04 oz/ft<sup>3</sup> UEL%: N/A

Extinguishing Media: Dry chemical powder. Dry sand. DO NOT USE WATER.

Fire Fighting Procedure: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

Fire/Explosion Hazards: Emits toxic fumes under fire conditions. Do not expose to air and fire.

This material, like most materials in powder form, is capable of creating a dust explosion. DO NOT DISTURB METAL WHILE EXTINGUISHING FIRE.

**6. Accidental Release**

Spill Or Leak Procedures: Utilize recommended protective clothing and equipment. Clean spills in a manner that does not disperse dust into the air. Spill area can be washed with water. Collect wash water for approved disposal. Keep from entering water or ground water.

## **7. Handling And Storage**

Storage Temperatures: Store at ambient temperature.

Shelf Life: Unlimited in tightly sealed container

Special Sensitivity: None

Handling/Storage Precautions: Avoid breathing dust. Avoid getting in eyes or on skin. Wash

## **8. Exposure Controls/Personal Protection**

Eye Protection: Safety glasses or goggles.

Skin Protection: PVC gloves with impervious boots, apron or coveralls. Wash hands and face before eating, drinking or using tobacco.

Respirator: Work ambient concentrations should be monitored and if the recommended exposure limit is exceeded, a NIOSH/MSHA approved dust respirator must be worn.

Ventilation: Use local ventilation if dusting is a problem, to maintain air levels below the recommended exposure limit.

Additional Measures: Emergency showers and eye wash stations should be available. Educate and train employees in the safe handling of hazardous chemicals.

## **9. Physical And Chemical Properties**

Physical Form: Powder or Flitter

Color: Silver

Odor: Odorless

Molecular Weight: 26.98

Boiling Point: 2630°C

Melting/Freezing Point: 660°C

Solubility In Water: Insoluble

Specific Gravity: 2.6

## **10. Stability And Reactivity**

Stability: Stable

Hazardous Polymerization: Will not occur.

Incompatibilities: Acids, acid chlorides, alkalines, oxidizing agents, halogens, air sensitive, moisture sensitive.

Instable Conditions: Excessive temperatures (see incompatibilities).

Decomposition Temperature: Not established.

Decomposition Products: Toxic fumes of aluminum oxide. Could react with water, acids and alkalis to form combustible hydrogen gas.

## **11. Toxicological Information**

RTECS Number: BD0330000

Routes Of Exposure: Eye contact. Ingestion. Inhalation. Skin contact.



Toxicity Data: LD50: Not established.

Chronic Toxic Effects: Not known to cause any long term harmful health effects.

Acute Toxic Effects: Mild irritant to skin, eyes, and respiratory system.

## 12. Ecological Information

Ecotoxicity: This product may cause adverse environmental effects. Employ management practices which prevent material from contacting stormwater, entering waterway, or otherwise impacting plant and animal species.

## 13. Disposal Considerations

Waste Disposal Method: Waste disposal should be in accordance with existing federal, state and local environmental regulations.

## 14. Transportation Information

Proper Shipping Name: Aluminum

UN Number: 1309

Class: 4.1

P.G.: II

Label Code: 4.1

## 15. Regulatory Information

OSHA Status: This product is hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29 CFR 1910.1200.

TSCA Chemical Inventory: This compound is on the EPA Toxic Substance Control Act (TSCA) Inventory List

California Proposition 65: To the best of our knowledge, this product contains no levels of listed substances which the state of California has found to cause cancer, birth defects, or other reproductive effects.

SARA 313 Title III:

Section 320 Extremely Hazardous Substances: None

Section 311/312 Hazardous Categories: None

Section 313 Toxic Chemicals: This product may be subject to reporting requirement.  
(Contains 100% AI)

## 16. Other Information

Prepared By: Michael Richard

Date: June 3, 2015

Reason For Issue: GHS Compliance

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