## 1 Identification

**Product identifier**

**Product name: Potassium, chunks, in mineral oil**

**Stock number:** L13267
**CAS Number:**
7440-09-7
**EC number:**
231-119-8
**Index number:**
019-001-00-2
**Relevant identified uses of the substance or mixture and uses advised against.**
**Identified use:** SU24 Scientific research and development

**Details of the supplier of the safety data sheet**
**Manufacturer/Supplier:**
Alfa Aesar
Thermo Fisher Scientific Chemicals, Inc.
30 Bond Street
Ward Hill, MA 01835-8099
Tel: 800-343-0660
Fax: 800-322-4757
Email: tech@alfa.com
www.alfa.com
**Information Department:** Health, Safety and Environmental Department
**Emergency telephone number:**
During normal business hours (Monday-Friday, 8am-7pm EST), call (800) 343-0660. After normal business hours, call Carechem 24 at (866) 928-0789.

## 2 Hazard(s) identification

**Classification of the substance or mixture in accordance with 29 CFR 1910 (OSHA HCS)**

GHS02 Flame

Water-react. 1 H260 In contact with water releases flammable gases which may ignite spontaneously.

GHS05 Corrosion

Skin Corr. 1B H314 Causes severe skin burns and eye damage.
Eye Dam. 1 H318 Causes serious eye damage.
**Hazards not otherwise classified** No information known.

**Label elements**
**GHS label elements** The product is classified and labeled in accordance with 29 CFR 1910 (OSHA HCS)
**Hazard pictograms**

GHS02 GHS05

**Signal word** Danger
**Hazard statements**
H260 In contact with water releases flammable gases which may ignite spontaneously.
H314 Causes severe skin burns and eye damage.
**Precautionary statements**
P231+P232 Handle under inert gas. Protect from moisture.
P260 Do not breathe dust/fume/gas/mist/vapours/spray.
P303+P361+P353 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P405 Store locked up.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.
**WHMIS classification**
B6 - Reactive flammable material
D2B - Toxic material causing other toxic effects
E - Corrosive material

**Classification system**
**HMIS ratings (scale 0-4)**
**(Hazardous Materials Identification System)**


Health (acute effects) = 3
Flammability = 3
Physical Hazard = 3

**Other hazards**
**Results of PBT and vPvB assessment**
**PBT:** Not applicable.
**vPvB:** Not applicable.

## 3 Composition/information on ingredients

**Chemical characterization: Substances**
**CAS# Description:**
7440-09-7 Potassium
**Identification number(s):**
**EC number:** 231-119-8
**Index number:** 019-001-00-2

**Product name: Potassium, chunks, in mineral oil**

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## 4 First-aid measures

**Description of first aid measures**
**General information** Immediately remove any clothing soiled by the product.
**After inhalation**
Supply fresh air. If required, provide artificial respiration. Keep patient warm.
Seek immediate medical advice.
**After skin contact**
Immediately wash with water and soap and rinse thoroughly.
Seek immediate medical advice.
**After eye contact** Rinse opened eye for several minutes under running water. Then consult a doctor.
**After swallowing** Seek medical treatment.
**Information for doctor**
**Most important symptoms and effects, both acute and delayed**
Causes severe skin burns.
Causes serious eye damage.
**Indication of any immediate medical attention and special treatment needed** No further relevant information available.

## 5 Fire-fighting measures

**Extinguishing media**
**Suitable extinguishing agents** Special powder for metal fires. Do not use water.
**For safety reasons unsuitable extinguishing agents** Water
**Special hazards arising from the substance or mixture**
Reacts violently with water
If this product is involved in a fire, the following can be released:
Potassium oxide
**Advice for firefighters**
**Protective equipment:**
Wear self-contained respirator.
Wear fully protective impervious suit.

## 6 Accidental release measures

**Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
Ensure adequate ventilation
Keep away from ignition sources
**Environmental precautions:** Do not allow product to reach sewage system or any water course.
**Methods and material for containment and cleaning up:**
Use neutralizing agent.
Dispose of contaminated material as waste according to section 13.
Ensure adequate ventilation.
Do not flush with water or aqueous cleansing agents
**Prevention of secondary hazards:** Keep away from ignition sources.
**Reference to other sections**
See Section 7 for information on safe handling
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

## 7 Handling and storage

**Handling**
**Precautions for safe handling**
Handle under dry protective gas.
Keep container tightly sealed.
Store in cool, dry place in tightly closed containers.
Ensure good ventilation at the workplace.
Reacts violently with water
**Information about protection against explosions and fires:** No information known.

**Conditions for safe storage, including any incompatibilities**
**Storage**
**Requirements to be met by storerooms and receptacles:** No special requirements.
**Information about storage in one common storage facility:**
Store away from air.
Store away from water/moisture.
Store away from oxidizing agents.
**Further information about storage conditions:**
Store under dry inert gas.
This product is moisture sensitive.
This product is air sensitive.
Protect from humidity and water.
Keep container tightly sealed.
Store in cool, dry conditions in well sealed containers.
**Specific end use(s)** No further relevant information available.

## 8 Exposure controls/personal protection

**Additional information about design of technical systems:**
Properly operating chemical fume hood designed for hazardous chemicals and having an average face velocity of at least 100 feet per minute.

**Control parameters**
**Components with limit values that require monitoring at the workplace:**
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
**Additional information:** No data

**Exposure controls**
**Personal protective equipment**
**General protective and hygienic measures**
The usual precautionary measures for handling chemicals should be followed.
Keep away from foodstuffs, beverages and feed.
Remove all soiled and contaminated clothing immediately.
Wash hands before breaks and at the end of work.
Avoid contact with the eyes and skin.
Maintain an ergonomically appropriate working environment.
**Breathing equipment:** Use suitable respirator when high concentrations are present.

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**Product name: Potassium, chunks, in mineral oil**

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**Recommended filter device for short term use:**
Use a respirator with organic vapor/acid gas cartridges as a backup to engineering controls. Risk assessment should be performed to determine if air-purifying respirators are appropriate. Only use equipment tested and approved under appropriate government standards such as NIOSH (USA) or CEN (EU).
**Protection of hands:**
Impervious gloves
Check protective gloves prior to each use for their proper condition.
The selection of suitable gloves not only depends on the material, but also on quality. Quality will vary from manufacturer to manufacturer.
**Penetration time of glove material (in minutes)** Not determined
**Eye protection:**
Tightly sealed goggles
Full face protection
**Body protection:** Protective work clothing.

## 9 Physical and chemical properties

**Information on basic physical and chemical properties**
**General Information**

| | |
|---|---|
| **Appearance:** | |
| **Form:** | Solid in mineral oil |
| **Color:** | Silvery-white |
| **Odor:** | Odorless |
| **Odor threshold:** | Not determined. |
| **pH-value:** | Not applicable. |
| **Change in condition** | |
| **Melting point/Melting range:** | 63-64 °C (145-147 °F) |
| **Boiling point/Boiling range:** | 765-770 °C (1409-1418 °F) |
| **Sublimation temperature / start:** | Not determined |
| **Flammability (solid, gaseous)** | Contact with water liberates extremely flammable gases. |
| **Ignition temperature:** | Not determined |
| **Decomposition temperature:** | Not determined |
| **Auto igniting:** | Not determined. |
| **Danger of explosion:** | Not determined. |
| **Explosion limits:** | |
| **Lower:** | Not determined |
| **Upper:** | Not determined |
| **Vapor pressure:** | Not applicable. |
| **Density at 20 °C (68 °F):** | 0.86 g/cm³ (7.177 lbs/gal) |
| **Relative density** | Not determined. |
| **Vapor density** | Not applicable. |
| **Evaporation rate** | Not applicable. |
| **Solubility in / Miscibility with** | |
| **Water:** | Reacts violently<br>Contact with water releases flammable gases |
| **Partition coefficient (n-octanol/water):** | Not determined. |
| **Viscosity:** | |
| **dynamic:** | Not applicable. |
| **kinematic:** | Not applicable. |
| **Other information** | No further relevant information available. |

## 10 Stability and reactivity

**Reactivity**
Reacts violently with water.
In contact with water releases flammable gases which may ignite spontaneously.
**Chemical stability** Stable under recommended storage conditions.
**Thermal decomposition / conditions to be avoided:** Decomposition will not occur if used and stored according to specifications.
**Possibility of hazardous reactions**
Reacts with strong oxidizing agents
Contact with water releases flammable gases
Reacts violently with water
**Conditions to avoid** No further relevant information available.
**Incompatible materials:**
Air
Oxidizing agents
Water/moisture
**Hazardous decomposition products:** Potassium oxide

## 11 Toxicological information

**Information on toxicological effects**
**Acute toxicity:**
Swallowing will lead to a strong corrosive effect on mouth and throat and to the danger of perforation of esophagus and stomach.
The Registry of Toxic Effects of Chemical Substances (RTECS) contains acute toxicity data for components in this product.
**LD/LC50 values that are relevant for classification:** No data
**Skin irritation or corrosion:** Causes severe skin burns.
**Eye irritation or corrosion:** Causes serious eye damage.
**Sensitization:** No sensitizing effects known.
**Germ cell mutagenicity:** No effects known.
**Carcinogenicity:** No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH.
**Reproductive toxicity:** No effects known.
**Specific target organ system toxicity - repeated exposure:** No effects known.
**Specific target organ system toxicity - single exposure:** No effects known.
**Aspiration hazard:** No effects known.
**Subacute to chronic toxicity:** No effects known.
**Additional toxicological information:** To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.

## 12 Ecological information

**Toxicity**
**Aquatic toxicity:** No further relevant information available.
**Persistence and degradability** No further relevant information available.
**Bioaccumulative potential** No further relevant information available.

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**Product name: Potassium, chunks, in mineral oil**

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**Mobility in soil** No further relevant information available.
**Additional ecological information:**
**General notes:**
Do not allow undiluted product or large quantities to reach ground water, water course or sewage system.
Avoid transfer into the environment.
**Results of PBT and vPvB assessment**
**PBT:** Not applicable.
**vPvB:** Not applicable.
**Other adverse effects** No further relevant information available.

## 13 Disposal considerations

**Waste treatment methods**
**Recommendation** Consult state, local or national regulations to ensure proper disposal.
**Uncleaned packagings:**
**Recommendation:** Disposal must be made according to official regulations.

## 14 Transport information

| | |
|---|---|
| **UN-Number**<br>**DOT, IMDG, IATA** | <br>UN2257 |
| **UN proper shipping name**<br>**DOT**<br>**IMDG, IATA** | <br>Potassium<br>POTASSIUM |
| **Transport hazard class(es)** | |
| **DOT** | |
|  | |
| **Class**<br>**Label**<br>**Class**<br>**Label** | 4.1 Flammable solids, self-reactive substances and solid desensitised explosives.<br>4.3<br>4.3 (W2) Substances which, in contact with water, emit flammable gases<br>4.3 |
| **IMDG, IATA** | |
|  | |
| **Class**<br>**Label** | 4.3 Substances which, in contact with water, emit flammable gases.<br>4.3 |
| **Packing group**<br>**DOT, IMDG, IATA** | <br>I |
| **Environmental hazards:** | Not applicable. |
| **Special precautions for user**<br>**EMS Number:** | Warning: Substances which, in contact with water, emit flammable gases<br>F-G,S-N |
| **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** | Not applicable. |
| **Transport/Additional information:** | |
| **DOT**<br>**Marine Pollutant (DOT):** | <br>No |
| **UN "Model Regulation":** | UN2257, Potassium, 4.3, I |

## 15 Regulatory information

**Safety, health and environmental regulations/legislation specific for the substance or mixture**
**GHS label elements** The product is classified and labeled in accordance with 29 CFR 1910 (OSHA HCS)
**Hazard pictograms**

GHS02 GHS05

**Signal word** Danger
**Hazard statements**
H260 In contact with water releases flammable gases which may ignite spontaneously.
H314 Causes severe skin burns and eye damage.
**Precautionary statements**
P231+P232 Handle under inert gas. Protect from moisture.
P260 Do not breathe dust/fume/gas/mist/vapours/spray.
P303+P361+P353 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P405 Store locked up.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.
**National regulations**
All components of this product are listed in the U.S. Environmental Protection Agency Toxic Substances Control Act Chemical substance Inventory.
All components of this product are listed on the Canadian Domestic Substances List (DSL).
**SARA Section 313 (specific toxic chemical listings)** Substance is not listed.
**California Proposition 65**
**Prop 65 - Chemicals known to cause cancer** Substance is not listed.
**Prop 65 - Developmental toxicity** Substance is not listed.
**Prop 65 - Developmental toxicity, female** Substance is not listed.
**Prop 65 - Developmental toxicity, male** Substance is not listed.
**Information about limitation of use:** For use only by technically qualified individuals.
**Other regulations, limitations and prohibitive regulations**
**Substance of Very High Concern (SVHC) according to the REACH Regulations (EC) No. 1907/2006.** Substance is not listed.
**The conditions of restrictions according to Article 67 and Annex XVII of the Regulation (EC) No 1907/2006 (REACH) for the manufacturing, placing on the market and use must be observed.**
Substance is not listed.

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**Product name: Potassium, chunks, in mineral oil**

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***Annex XIV of the REACH Regulations (requiring Authorisation for use)*** *Substance is not listed.*
***Chemical safety assessment:*** *A Chemical Safety Assessment has not been carried out.*

## 16 Other information

*Employers should use this information only as a supplement to other information gathered by them, and should make independent judgement of suitability of this information to ensure proper use and protect the health and safety of employees. This information is furnished without warranty, and any use of the product not in conformance with this Material Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.*

***Department issuing SDS:*** *Global Marketing Department*
***Date of preparation / last revision*** *11/24/2015 / -*
***Abbreviations and acronyms:***
*ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)*
*IMDG: International Maritime Code for Dangerous Goods*
*DOT: US Department of Transportation*
*IATA: International Air Transport Association*
*EINECS: European Inventory of Existing Commercial Chemical Substances*
*CAS: Chemical Abstracts Service (division of the American Chemical Society)*
*HMIS: Hazardous Materials Identification System (USA)*
*WHMIS: Workplace Hazardous Materials Information System (Canada)*
*LC50: Lethal concentration, 50 percent*
*LD50: Lethal dose, 50 percent*
*vPvB: very Persistent and very Bioaccumulative*
*ACGIH: American Conference of Governmental Industrial Hygienists (USA)*
*OSHA: Occupational Safety and Health Administration (USA)*
*NTP: National Toxicology Program (USA)*
*IARC: International Agency for Research on Cancer*
*EPA: Environmental Protection Agency (USA)*