

# POTASSIUM OXIDE

## Section 1: Identification of the substance/mixture and of the company/undertaking

### 1.1 Product identifier

Product name: Potassium Oxide  
CAS Number: 12136-45-7  
EC Number: 235-227-6

### 1.2 Relevant identified uses of the substance or mixture and uses advised against

Product use: Laboratory chemicals, Industrial & for professional use only

### 1.3 Details of the supplier of the safety data sheet

Company name: East Harbour Group Ltd  
20 Clough Road, Severalls Industrial Park  
Colchester, Essex, CO4 9QS  
United Kingdom

Telephone: +44 (0) 333 242 0100  
Email: [info@eastharbourgroup.com](mailto:info@eastharbourgroup.com)

### 1.4 Emergency telephone number

Emergency telephone: 0800 246 1274

## Section 2: Hazardous identification

### 2.1 Classification of the substance or mixture

Skin Corrosion, Sub-category 1A  
Serious eye damage, Category 1

### 2.2 Label elements

GHS Label elements, including precautionary statements  
Pictogram(s)



Signal word: Danger  
Hazard statement(s): H314 Causes severe skin burns and eye damage

#### Precautionary statement(s)

#### Prevention

P260 Do not breathe dust/fume/gas/mist/vapours/spray.  
P264 Wash thoroughly after handling  
P280 Wear protective gloves/clothing/eye/face/hearing

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## Response

P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.  
 P363 Wash contaminated clothing before reuse.  
 P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
 P316 Get emergency medical help immediately.  
 P321 Specific treatment (see... on this label)  
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P317 Get medical help.

## Storage

P405 Store locked up.

## Disposal

P501 Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

## 2.3 Other hazards which do not result in classification.

No data available

## Section 3: Composition/information on ingredients

### 3.1 Substances

Chemical Name	Common names & Synonyms	CAS Number	EC Number	Concentration
Potassium Oxide	Dipotassium oxide	12136-45-7	235-227-6	100%

## Section 4: First aid measures

### 4.1 Description of first aid measures

#### If Inhaled:

Fresh air, rest. Half upright position. Artificial respiration may be needed. Refer immediately for medical attention.

#### Following skin contact:

Remove contaminated clothes. Rinse skin with plenty of water or shower. Refer immediately for medical attention.

#### Following eye contact:

Rinse with plenty of water for several minutes (remove contact lenses if easily possible). Refer immediately for medical attention.

#### Following ingestion:

Rinse mouth. Do NOT induce vomiting. Refer immediately for medical attention.

### 4.2 Most important symptoms and effects, both acute and delayed

No data available

### 4.3 Indication of any immediate medical attention and special treatment needed

No data available

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### Section 5: Fire-fighting measures

#### 5.1 Fire Fighting Media and Instructions:

Suitable extinguishing media: Use dry chemical, carbon dioxide or alcohol-resistant foam.

#### 5.2 Special hazards arising from the substance or mixture

Not combustible

#### 5.3 Advice for firefighters

Use powder, carbon dioxide. NO hydrous agents.

### Section 6: Accidental release measures

#### 6.1 Personal precautions, protective equipment and emergency procedures

Personal protection: Chemical protection suit including self-contained breathing apparatus. Sweep spilled substance into covered dry, plastic containers. Wash away remainder with plenty of water.

#### 6.2 Environmental precautions

Prevent further spillage or leakage if it is safe to do so. Do not let the chemical enter drains. Discharge into the environment must be avoided.

#### 6.3 Methods and material for containment and cleaning up

Collect and arrange disposal. Keep the chemical in suitable and closed containers for disposal. Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment. Adhered or collected material should be promptly disposed of, in accordance with appropriate laws and regulations.

### Section 7: Handling and storage

#### 7.1 Precautions for safe handling

Handling in a well-ventilated place. Wear suitable protective clothing. Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Use non-sparking tools. Prevent fire caused by electrostatic discharge steam.

#### 7.2 Conditions for safe storage, including any incompatibilities

Separated from strong acids and food and feedstuffs. Dry.

### Section 8: Exposure controls/personal protection

#### 8.1 Control parameters

##### Occupational Exposure limit values

No data available

##### Biological limit values

No data available

#### 8.2 Exposure controls /

##### Appropriate engineering controls

Ensure adequate ventilation. Handle in accordance with good industrial hygiene and safety practice. Set up emergency exits and the risk-elimination area.

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## 8.3 Personal protective equipment

### Eye/Face protection

Wear face shield or eye protection in combination with breathing protection.

### Skin protection

Protective gloves. Protective clothing.

### Respiratory protection

Use local exhaust. Use breathing protection.

### Thermal hazards

no data available

## Section 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

Physical state	White microgranular
Colour	no data available
Odour	no data available
Melting point/freezing point	no data available
Boiling point or initial boiling point and boiling range	100°C at 760 mmHg
Flammability	no data available
Lower and upper explosion limit/flammability limit	no data available
Flash point	no data available
Auto-ignition temperature	no data available
Decomposition temperature	no data available
pH	no data available
Kinematic viscosity	no data available
Solubility	Solubility in water: reaction
Partition coefficient n-octanol/water	no data available
Vapour pressure	24.5 mmHg @ 25°C
Density and/or relative density	2.3 g/cm <sup>3</sup>
Relative vapour density	no data available
Particle characteristics	no data available

## Section 10: Stability and Reactivity

### 10.1 Reactivity

no data available

### 10.2 Chemical Stability

no data available

### 10.3 Possibility of hazardous reactions

The solution in water is a strong base. It reacts violently with acid and is corrosive. Reacts violently with water. This produces potassium hydroxide. Attacks many metals in the presence of water.

### 10.4 Conditions to avoid

no data available

### 10.5 Incompatible materials

no data available

### 10.6 Hazardous decomposition products

no data available

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## Section 11: Toxicological Information

### Acute toxicity

**Oral:** no data available

**Inhalation:** no data available

**Dermal:** no data available

**Skin corrosion/irritation:** no data available

**Serious eye damage/irritation:** no data available

**Respiratory or skin sensitization:** no data available

**Germ cell mutagenicity:** no data available

**Carcinogenicity:** no data available

**Reproductive toxicity:** no data available

**STOT-single exposure:** The substance is corrosive to the eyes, skin and respiratory tract. Corrosive on ingestion. Inhalation of the aerosol may cause lung oedema. See Notes. Medical observation is indicated.

**STOT-repeated exposure:** no data available

**Aspiration hazard:** A harmful concentration of airborne particles can be reached quickly when dispersed.

## Section 12: Ecological Information

### 12.1 Toxicity

**Toxicity to fish:** no data available

**Toxicity to daphnia and other aquatic invertebrates:** no data available

**Toxicity to algae:** no data available

**Toxicity to microorganisms:** no data available

**12.2 Persistence and degradability:** no data available

**12.3 Bioaccumulative potential:** no data available

**12.4 Mobility in soil:** no data available

**12.5 Other adverse effects:** no

## Section 13: Disposal considerations

### 13.1 Waste treatment methods

**Product:** The material can be disposed of by removal to a licensed chemical destruction plant or by controlled incineration with flue gas scrubbing. Do not contaminate water, foodstuffs, feed or seed by storage or disposal. Do not discharge to sewer systems.

**Contaminated packaging:** Containers can be triply rinsed (or equivalent) and offered for recycling or reconditioning. Alternatively, the packaging can be punctured to make it unusable for other purposes and then be disposed of in a sanitary landfill. Controlled incineration with flue gas scrubbing is possible for combustible packaging materials.

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## Section 14: Transport Information

### 14.1 UN Number

ADR/RID: UN2033 (For reference only, please check.)

IMDG: UN2033 (For reference only, please check.)

IATA: UN2033 (For reference only, please check.)

### 14.2 UN Proper Shipping Name

ADR/RID: POTASSIUM MONOXIDE (For reference only, please check.)

IMDG: POTASSIUM MONOXIDE (For reference only, please check.)

IATA: POTASSIUM MONOXIDE (For reference only, please check.)

### 14.3 Transport hazard class(es)

ADR/RID: 8 (For reference only, please check.)

IMDG: 8 (For reference only, please check.)

IATA: 8 (For reference only, please check.)

### 14.4 Packing group, if applicable

ADR/RID: II (For reference only, please check.)

IMDG: II (For reference only, please check.)

IATA: II (For reference only, please check.)

### 14.5 Environmental hazards

ADR/RID: No

IMDG: No

IATA: No

14.6 Special precautions for user: no data available

14.7 Transport in bulk according to IMO instruments: no data available

This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

## Section 15: Regulatory Information

### 15.1 Safety, health and environmental regulations specific for the product in question

Chemical name	Common names and synonyms	CAS Number	EC Number
Potassium Oxide	Potassium oxide	12136-45-7	235-227-6
European Inventory of Existing Commercial Chemical Substances (EINECS)			Listed.
EC Inventory			Listed.
United States Toxic Substances Control Act (TSCA) Inventory			Listed.
China Catalogue of Hazardous chemicals 2015			Listed.
New Zealand Inventory of Chemicals (NZIoC)			Listed.
Philippines Inventory of Chemicals and Chemical			Listed.
Vietnam National Chemical Inventory			Listed.
Chinese Chemical Inventory of Existing Chemical Substances (China IECSC)			Listed.
Korea Existing Chemicals List (KECL)			Listed.

## POTASSIUM OXIDE

### Section 16: Other Information

#### Abbreviations and acronyms

CAS: Chemical Abstracts Service

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

RID: Regulation concerning the International Carriage of Dangerous Goods by Rail

IMDG: International Maritime Dangerous Goods

IATA: International Air Transportation Association

TWA: Time Weighted Average

STEL: Short term exposure limit

LC50: Lethal Concentration 50%

LD50: Lethal Dose 50%

EC50: Effective Concentration 50%

#### Other Information

Reacts violently with fire extinguishing agents such as water. The symptoms of lung oedema often do not become manifest until a few hours have passed and they are aggravated by physical effort. Rest and medical observation are therefore essential. Immediate administration of an appropriate inhalation therapy by a doctor, or by an authorised person, should be considered. See ICSC 03.