

# Potassium

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830  
Revision date: 5/17/2016 Supersedes: 6/6/2013 Version: 5.0

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

#### 1.1. Product identifier

Product form : Substance  
Name : Potassium  
EC index no : 019-001-00-2  
EC no : 231-119-8  
CAS No : 7440-09-7

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

##### 1.2.1. Relevant identified uses

Use of the substance/mixture : Powerful reducing agent used in organic synthesis

##### 1.2.2. Uses advised against

No additional information available

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

MSSA S.A.S.  
111, Rue de la Volta - Pomblière  
73600 SAINT-MARCEL - France  
T +33 (0)4 79 24 70 70 - F +33 (0)4 79 24 70 50  
[fds-msds@metauxspeciaux.fr](mailto:fds-msds@metauxspeciaux.fr)

#### 1.4. Emergency telephone number

Emergency number : Chemtrec (USA only) : 1-800-424-9300

Country	Organisation/Company	Address	Emergency number	Comment
United Kingdom	National Poisons Information Service (Birmingham Centre) City Hospital, Guy's & St Thomas' Hospital Trust	Dudley Road B18 7QH Birmingham	0844 892 0111 (UK only, Monday to Friday, 08.00 to 18.00 hours)	

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

##### Classification according to Regulation (EC) No. 1272/2008 [CLP]

Water-react. 1 H260  
Skin Corr. 1B H314

Full text of hazard classes and H-statements : see section 16

##### Adverse physicochemical, human health and environmental effects

Causes severe skin burns and eye damage. Reacts violently with water. In contact with water releases flammable gases which may ignite spontaneously.

#### 2.2. Label elements

##### Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



GHS02

GHS05

Signal word (CLP) :

Danger

Hazard statements (CLP) :

H260 - In contact with water releases flammable gases which may ignite spontaneously  
H314 - Causes severe skin burns and eye damage

Precautionary statements (CLP) :

P223 - Do not allow contact with water  
P231+P232 - Handle under inert gas. Protect from moisture  
P280 - Wear protective gloves, protective clothing, eye protection, face protection  
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

EUH-statements

: EUH014 - Reacts violently with water

# Potassium

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

### 2.3. Other hazards

No additional information available

## SECTION 3: Composition/information on ingredients

### 3.1. Substance

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Potassium	(CAS No) 7440-09-7 (EC no) 231-119-8 (EC index no) 019-001-00-2	100	Water-react. 1, H260 Skin Corr. 1B, H314

Full text of H-statements: see section 16

### 3.2. Mixture

Not applicable

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

First-aid measures after inhalation	: In case of inhalation of fumes of molten material or dust: Move the affected person away from the contaminated area and into the fresh air. Call a doctor.
First-aid measures after skin contact	: Brush off loose particles from skin. Remove all contaminated clothing and footwear. Rinse with plenty of water. Get immediate medical advice/attention.
First-aid measures after eye contact	: Rinse immediately and thoroughly, pulling the eyelids well away from the eye (15 minutes minimum). Consult an eye specialist immediately.
First-aid measures after ingestion	: Never attempt to induce vomiting. Call a physician immediately.

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

Symptoms/injuries after inhalation	: Breathing difficulties. Headache. Nausea. Irritation to respiratory tract.
Symptoms/injuries after skin contact	: Burns.
Symptoms/injuries after eye contact	: Burns.
Symptoms/injuries after ingestion	: Corrosion or irritation of the linings of the mouth, throat, and gastrointestinal tract. Abdominal pain, nausea. Diarrhea. Vomiting. Disturbances of consciousness.

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

Treat symptomatically.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

Suitable extinguishing media	: Dry powder.
Unsuitable extinguishing media	: Water. Foam. Carbon dioxide. Halogens.

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

Fire hazard	: During combustion : Toxic and corrosive vapours are released. Hydrogen.
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### 5.3. Advice for firefighters

Firefighting instructions	: Clear the danger area. Contain the extinguishing fluids by bunding.
Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

## SECTION 6: Accidental release measures

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

#### 6.1.1. For non-emergency personnel

Emergency procedures	: Avoid contact with skin and eyes. Avoid contact of substance with water. No flames, no sparks. Eliminate all sources of ignition. Do not attempt to take action without suitable protective equipment. Clear the danger area.
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#### 6.1.2. For emergency responders

Protective equipment	: Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
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### 6.2. Environmental precautions

Do not allow product to spread into the environment.

# Potassium

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

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

Methods for cleaning up : Cover with: sodium carbonate. Dry sand. Collect the product in a clean, dry container lined with anhydrous sodium carbonate or dry salt (NaCl). Cover with the same materials. Dispose of contaminated materials in accordance with current regulations.

### 6.4. Reference to other sections

For further information refer to section 13.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Avoid contact of substance with water. Avoid any direct contact with the product. Handle under inert gas. Avoid shock and friction.

Hygiene measures : Do not drink, eat or smoke in the workplace. Always wash hands after handling the product. Take a shower at end of the working day.

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

Storage conditions : Keep the container hermetically sealed. Store in a cool, well-ventilated place. Keep container dry. Keep away from sources of ignition.

Incompatible materials : Water. Bases. Carbon oxides (CO, CO<sub>2</sub>). Benzene. Ether. solid salts and solutions containing heavy metals. Halocarbons.

Packaging materials : Original packaging.

### 7.3. Specific end use(s)

No additional information available

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

No additional information available

### 8.2. Exposure controls

#### Appropriate engineering controls:

Ensure good ventilation of the work station. Extraction to remove vapours at their source. Safety shower. Eye fountain.

#### Hand protection:

Protective gloves. The protective gloves to be used must comply with the specifications of EC directive 89/686/EEC and the resultant standard EN 374. Breakthrough time : refer to the recommendations of the supplier

#### Eye protection:

Goggles + face shield

#### Skin and body protection:

Protective non-flammable clothing. Safety foot-wear

#### Respiratory protection:

In the event of insufficient ventilation: Respiratory protective device with a particle filter (P2 / P3)

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state : Solid

Colour : silvery.

Odour : odourless.

Odour threshold : No data available

pH : Not applicable

Relative evaporation rate (butylacetate=1) : No data available

Melting point : 63.65 °C

Freezing point : No data available

Boiling point : 774 °C (760 mmHg)

Flash point : Not applicable

Auto-ignition temperature : ~ 20 °C

Decomposition temperature : No data available

Flammability (solid, gas) : No data available

Vapour pressure : No data available

# Potassium

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Density	: 862 kg/m <sup>3</sup>
Solubility	: Soluble in : mercury. Ethylenediamine. Ammonia solution. Aniline. Water: Reacts violently with water
Log Pow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Exothermic reaction with water.

### 10.2. Chemical stability

Stable at ambient temperature and under normal conditions of use.

### 10.3. Possibility of hazardous reactions

In contact with water releases flammable gases which may ignite spontaneously.

### 10.4. Conditions to avoid

Air contact. May form explosive compounds.

### 10.5. Incompatible materials

Water. Moisture. Metallic salts. Bases. Halogenated compounds. Carbon oxides (CO, CO<sub>2</sub>). Benzene. Ether.

### 10.6. Hazardous decomposition products

On contact with air: May form explosive peroxides. On contact with water : Potassium hydroxide. Hydrogen.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity	: Not classified (Based on available data, the classification criteria are not met)
Skin corrosion/irritation	: Causes severe skin burns and eye damage. pH: Not applicable
Serious eye damage/irritation	: Serious eye damage/eye irritation, Category 1 pH: Not applicable
Respiratory or skin sensitisation	: Not classified (Based on available data, the classification criteria are not met)
Germ cell mutagenicity	: Not classified (Based on available data, the classification criteria are not met)
Carcinogenicity	: Not classified (Based on available data, the classification criteria are not met)
Reproductive toxicity	: Not classified (Based on available data, the classification criteria are not met)
STOT-single exposure	: Not classified (Based on available data, the classification criteria are not met)
STOT-repeated exposure	: Not classified (Based on available data, the classification criteria are not met)
Additional information	: By prolonged exposure : Lung tissue affection/degeneration May cause dermatitis by skin contact
Aspiration hazard	: Not classified (Technical impossibility to obtain the data)

## SECTION 12: Ecological information

### 12.1. Toxicity

Ecology - general : Before neutralisation the alkalinity of the product may represent a danger to aquatic organisms.

### 12.2. Persistence and degradability

No additional information available

# Potassium

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

### 12.3. Bioaccumulative potential

#### Potassium (7440-09-7)

Bioaccumulative potential	Not bioaccumulable.
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### 12.4. Mobility in soil

No additional information available

### 12.5. Results of PBT and vPvB assessment

No additional information available

### 12.6. Other adverse effects

No additional information available






## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Waste treatment methods	: Dispose of in accordance with relevant local regulations. Incinerate at a licensed installation.
Additional information	: The user's attention is drawn to the possible existence of specific european, national or local regulations regarding disposal.

## SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

ADR	IMDG	IATA	ADN	RID
<b>14.1. UN number</b>				
2257	2257	2257	2257	2257
<b>14.2. UN proper shipping name</b>				
POTASSIUM	POTASSIUM	Potassium	POTASSIUM	POTASSIUM
<b>14.3. Transport hazard class(es)</b>				
4.3	4.3	4.3	4.3	4.3
				
<b>14.4. Packing group</b>				
I	I	I	I	I
<b>14.5. Environmental hazards</b>				
Dangerous for the environment : No	Dangerous for the environment : No Marine pollutant : No	Dangerous for the environment : No	Dangerous for the environment : No	Dangerous for the environment : No

### 14.6. Special precautions for user

#### - Overland transport

Classification code (ADR)	: W2
Limited quantities (ADR)	: 0
Excepted quantities (ADR)	: E0
Packing instructions (ADR)	: P403, IBC04
Mixed packing provisions (ADR)	: MP2
Portable tank and bulk container instructions (ADR)	: T9
Portable tank and bulk container special provisions (ADR)	: TP7, TP33
Tank code (ADR)	: L10BN(+)
Tank special provisions (ADR)	: TU1, TE5, TT3, TM2
Vehicle for tank carriage	: AT
Transport category (ADR)	: 1
Special provisions for carriage - Packages (ADR)	: V1
Special provisions for carriage - Loading, unloading and handling (ADR)	: CV23
Special provisions for carriage - Operation (ADR)	: S20
Hazard identification number (Kemler No.)	: X423

# Potassium

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Orange plates

:



Tunnel restriction code (ADR)

: B/E

EAC code

: 4W

### - Transport by sea

Limited quantities (IMDG)

: 0

Excepted quantities (IMDG)

: E0

Packing instructions (IMDG)

: P403

Special packing provisions (IMDG)

: PP31

IBC packing instructions (IMDG)

: IBC04

IBC special provisions (IMDG)

: B1

Tank instructions (IMDG)

: T9

Tank special provisions (IMDG)

: TP7, TP33

EmS-No. (Fire)

: F-G

EmS-No. (Spillage)

: S-N

Stowage category (IMDG)

: D

Stowage and handling (IMDG)

: H1

Segregation (IMDG)

: SG35, SG26

Properties and observations (IMDG)

: Soft, silvery metal, solid or liquid. Floats on water. Reacts violently with moisture, water or acids, evolving hydrogen, which may be ignited by the heat of the reaction. Highly reactive, sometimes with explosive effect.

MFAG-No

: 138

### - Air transport

PCA Excepted quantities (IATA)

: E0

PCA Limited quantities (IATA)

: Forbidden

PCA limited quantity max net quantity (IATA)

: Forbidden

PCA packing instructions (IATA)

: Forbidden

PCA max net quantity (IATA)

: Forbidden

CAO packing instructions (IATA)

: 487

CAO max net quantity (IATA)

: 15kg

Special provisions (IATA)

: A1

ERG code (IATA)

: 4W

### - Inland waterway transport

Classification code (ADN)

: W2

Limited quantities (ADN)

: 0

Excepted quantities (ADN)

: E0

Equipment required (ADN)

: PP, EX, A

Ventilation (ADN)

: VE01

Provisions for handling and stowage of the cargo (ADN)

: HA08

Number of blue cones/lights (ADN)

: 0

### - Rail transport

Classification code (RID)

: W2

Limited quantities (RID)

: 0

Excepted quantities (RID)

: E0

Packing instructions (RID)

: P403, IBC04

Mixed packing provisions (RID)

: MP2

Portable tank and bulk container instructions (RID)

: T9

Portable tank and bulk container special provisions (RID)

: TP7, TP33

Tank codes for RID tanks (RID)

: L10BN(+)

Special provisions for RID tanks (RID)

: TU1, TE5, TT3, TM2

Transport category (RID)

: 1

# Potassium

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Special provisions for carriage – Packages (RID) : W1  
Special provisions for carriage - Loading, unloading and handling (RID) : CW23  
Hazard identification number (RID) : X423

### 14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

Not applicable

## SECTION 15: Regulatory information

### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

#### 15.1.1. EU-Regulations

No REACH Annex XVII restrictions  
Potassium is not on the REACH Candidate List  
Potassium is not on the REACH Annex XIV List

#### 15.1.2. National regulations

No additional information available

### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out

## SECTION 16: Other information

Indication of changes:

This sheet has been revised completely (changes were not marked).

Data sources : RTECS (Registry of Toxic Effects of Chemical Substances). ECHA - European Chemicals Agency. HSDB (Hazardous Substances Data Bank).

Other information : Safety data sheet established by : LISAM SERVICES - TELEGIS  
17 rue de la Couture F-60400 Passel  
www.lisam-telegis.fr.

Full text of H- and EUH-statements:

Skin Corr. 1B	Skin corrosion/irritation, Category 1B
Water-react. 1	Substances and Mixtures which, in contact with water, emit flammable gases, Category 1
H260	In contact with water releases flammable gases which may ignite spontaneously
H314	Causes severe skin burns and eye damage
EUH014	Reacts violently with water

SDS EU (REACH Annex II)

*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*