

POTASSIUM ETHOXIDE, 95%

Safety Data Sheet AKP640

Date of issue: 19/10/2015

Version: 1.0

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier**

Product form	: Substance
Physical state	: Solid
Substance name	: POTASSIUM ETHOXIDE, 95%
Product code	: AKP640
Formula	: C ₂ H ₅ KO
Synonyms	: ETHANOL, POTASSIUM SALT; POTASSIUM ETHYLATE
Chemical family	: METAL ALCOHOLATE

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 : Chemical intermediate

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet**GELEST, INC.**11 East Steel Road
Morrisville, PA 19067**USA**

T 215-547-1015 - F 215-547-2484 - (M-F): 8:00 AM - 5:30 PM EST

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info@gelestde.com - www.gelestde.com**1.4. Emergency telephone number**

Emergency number : CHEMTREC: 1-800-424-9300 (USA); +1 703-527-3887 (International)

SECTION 2: Hazards identification**2.1. Classification of the substance or mixture****Classification according to Regulation (EC) No. 1272/2008 [CLP]**

Self-Heating Substances and Mixtures, Category 1	H251
Skin corrosion/irritation, Category 1B	H314
Serious eye damage/eye irritation, Category 1	H318
Full text of H statements : see section 16	

Adverse physicochemical, human health and environmental effects

No additional information available

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) :

: H251 - Self-heating: may catch fire.
H314 - Causes severe skin burns and eye damage.

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Precautionary statements (CLP) : P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P235+P410 - Keep cool. Protect from sunlight.
P260 - Do not breathe dust.
P264 - Wash hands thoroughly after handling.
P301+P330+P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P310 - Immediately call a POISON CENTER or doctor/physician

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances

Substance type : Mono-constituent
Name : POTASSIUM ETHOXIDE, 95%
CAS-No. : 917-58-8
EC-No. : 213-029-0

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Potassium ethoxide	(CAS-No.) 917-58-8 (EC-No.) 213-029-0 (EC Index-No.) 603-041-00-8	95 - 100	Self-heat. 1, H251 Skin Corr. 1B, H314

Full text of H-statements: see section 16

3.2. Mixtures

Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Remove contaminated clothing and shoes. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). If possible show this sheet; if not available show packaging or label.
First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. If you feel unwell, seek medical advice.
First-aid measures after skin contact : Wash with plenty of water/.... Get medical advice/attention.
First-aid measures after eye contact : Immediately flush eyes thoroughly with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical advice/attention.
First-aid measures after ingestion : Never give anything by mouth to an unconscious person. Get medical advice/attention.

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

Symptoms/effects : Causes severe skin burns and eye damage.
Symptoms/effects after inhalation : Inhalation will cause sneezing, irritation and burns.
Symptoms/effects after skin contact : Causes (severe) skin burns. If skin and air are dry, powder on skin may not cause irritation or burns. Worker will notice a slippery feeling on washing. However, if moisture is present, the powder can cause severe burns.
Symptoms/effects after eye contact : Causes serious eye damage.
Symptoms/effects after ingestion : Harmful if swallowed. Swallowing a small quantity of this material will result in serious health hazard.

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

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Dry chemical. Dry soda ash. Dry sodium chloride.
Unsuitable extinguishing media : Do not use water or carbon dioxide.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Self-heating; may catch fire. Irritating fumes and caustic vapors may develop when material is exposed to elevated temperatures or open flame.

5.3. Advice for firefighters

Firefighting instructions : Exercise caution when fighting any chemical fire. Protect against caustic dust, smoke and water.

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Protection during firefighting : Wear pressure demand self-contained breathing apparatus with full facepiece and full protective clothing. Avoid contact with skin and eyes. Do not breathe dust.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Eliminate ignition sources.

6.1.1. For non-emergency personnel

Protective equipment : Wear protective equipment as described in Section 8.

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. Equip cleanup crew with proper protection. For further information refer to section 8: "Exposure controls/personal protection".

Emergency procedures : Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if product enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

For containment : Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.

Methods for cleaning up : Sweep or shovel spills into appropriate container for disposal.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Avoid contact with skin and eyes. Do not breathe dust. Avoid dust formation. Ground containers when handling powder. Provide local exhaust or general room ventilation to minimize exposure to dust.

Hygiene measures : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep container tightly closed. Keep cool. Protect from sunlight. Store locked up. Store away from other materials. Maintain air gap between stacks/pallets. Store under dry nitrogen or argon in sealed containers.

Incompatible materials : Acids. alcohols. Carbon dioxide. Esters. Halogens. Ketones. Moist air. Water.

Storage area : Store in a well-ventilated place. Store away from heat.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Potassium ethoxide (917-58-8)		
Italy - Portugal - USA ACGIH	ACGIH TWA (mg/m ³)	3 mg/m ³
USA OSHA	OSHA PEL (TWA) (mg/m ³)	15 mg/m ³

8.2. Exposure controls

Appropriate engineering controls:

Provide local exhaust or general room ventilation.

Personal protective equipment:

Avoid all unnecessary exposure. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

Hand protection:

Neoprene or nitrile rubber gloves

Eye protection:

Chemical goggles. Contact lenses should not be worn

Skin and body protection:

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Wear suitable protective clothing. Long-sleeved fire-resistant lab uniform or coverall is recommended.

Respiratory protection:

Where exposure through inhalation may occur from use, respiratory protection equipment is recommended. NIOSH-certified dust and mist (teal cartridge) respirator.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid
Appearance	: Powder.
Molecular mass	: 84.16 g/mol
Colour	: Light yellow-tan.
Odour	: No data available
Odour threshold	: No data available
Refractive index	: No additional information available
pH	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: 250 °C decomposes
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Auto-ignition temperature	: ~ 50 - 60 °C in moist air
Decomposition temperature	: No data available
Flammability (solid, gas)	: Self-heating: may catch fire.
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Density	: 0.65 g/ml Bulk density
Solubility	: Reacts with water. Organic solvent: Soluble: ethanol, ether
Log Pow	: No data available
Log Kow	: 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	: 60 g/m ³ (lower: dust)

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Stable under nitrogen or argon in sealed containers.

10.3. Possibility of hazardous reactions

Material decomposes slowly in contact with moist air and rapidly in contact with water.

10.4. Conditions to avoid

Heat. Open flame. Sparks.

10.5. Incompatible materials

Acids. alcohols. Carbon dioxide. Esters. Halogens. Ketones. Moist air. Water.

10.6. Hazardous decomposition products

Caustic organic vapors. Ethanol. Potassium hydroxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

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Potassium ethoxide (917-58-8)

LD50 oral rat

598 mg/kg

Skin corrosion/irritation	: Causes severe skin burns and eye damage.
Serious eye damage/irritation	: Causes serious eye damage.
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified
Symptoms/effects after inhalation	: Inhalation will cause sneezing, irritation and burns.
Symptoms/effects after skin contact	: Causes (severe) skin burns. If skin and air are dry, powder on skin may not cause irritation or burns. Worker will notice a slippery feeling on washing. However, if moisture is present, the powder can cause severe burns.
Symptoms/effects after eye contact	: Causes serious eye damage.
Symptoms/effects after ingestion	: Harmful if swallowed. Swallowing a small quantity of this material will result in serious health hazard.
Reason for classification	: Expert judgment

SECTION 12: Ecological information

12.1. Toxicity

Acute aquatic toxicity	: Not classified
Chronic aquatic toxicity	: Not classified

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

No additional information available

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

Sewage disposal recommendations	: Do not dispose of waste into sewer.
Product/Packaging disposal recommendations	: Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container to licensed waste disposal facility.
Ecology - waste materials	: Avoid release to the environment.

SECTION 14: Transport information

14.1. UN number

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

14.1. UN number

UN-No. (ADR)	: 3206
UN-No. (IMDG)	: 3206
UN-No. (IATA)	: 3206
UN-No. (ADN)	: 3206
UN-No. (RID)	: 3206

14.2. UN proper shipping name

Proper Shipping Name (ADR)	: ALKALI METAL ALCOHOLATES, SELF-HEATING, CORROSIVE, N.O.S.
Proper Shipping Name (IMDG)	: ALKALI METAL ALCOHOLATES, SELF-HEATING, CORROSIVE, N.O.S.
Proper Shipping Name (IATA)	: Alkali metal alcoholates, self-heating, corrosive, n.o.s.

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Proper Shipping Name (ADN)	: ALKALI METAL ALCOHOLATES, SELF-HEATING, CORROSIVE, N.O.S.
Proper Shipping Name (RID)	: ALKALI METAL ALCOHOLATES, SELF-HEATING, CORROSIVE, N.O.S.
Transport document description (ADR)	: UN 3206 ALKALI METAL ALCOHOLATES, SELF-HEATING, CORROSIVE, N.O.S. (POTASSIUM ETHOXIDE), 4.2 (8), II, (D/E)
Transport document description (IMDG)	: UN 3206 ALKALI METAL ALCOHOLATES, SELF-HEATING, CORROSIVE, N.O.S. (POTASSIUM ETHOXIDE), 4.2 (8), II
Transport document description (IATA)	: UN 3206 Alkali metal alcoholates, self-heating, corrosive, n.o.s. (POTASSIUM ETHOXIDE), 4.2, II
Transport document description (ADN)	: UN 3206 ALKALI METAL ALCOHOLATES, SELF-HEATING, CORROSIVE, N.O.S. (POTASSIUM ETHOXIDE), 4.2 (8), II
Transport document description (RID)	: UN 3206 ALKALI METAL ALCOHOLATES, SELF-HEATING, CORROSIVE, N.O.S. (POTASSIUM ETHOXIDE), 4.2 (8), II

14.3. Transport hazard class(es)

ADR

Transport hazard class(es) (ADR) : 4.2 (8)
Danger labels (ADR) : 4.2, 8



IMDG

Transport hazard class(es) (IMDG) : 4.2 (8)
Danger labels (IMDG) : 4.2, 8



IATA

Transport hazard class(es) (IATA) : 4.2 (8)
Hazard labels (IATA) : 4.2, 8



ADN

Transport hazard class(es) (ADN) : 4.2 (8)
Danger labels (ADN) : 4.2, 8



RID

Transport hazard class(es) (RID) : 4.2 (8)
Danger labels (RID) : 4.2, 8



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14.4. Packing group

Packing group (ADR)	: II
Packing group (IMDG)	: II
Packing group (IATA)	: II
Packing group (ADN)	: II
Packing group (RID)	: II

14.5. Environmental hazards

Dangerous for the environment	: No
Marine pollutant	: No
Other information	: No supplementary information available

14.6. Special precautions for user

- Overland transport

Classification code (ADR)	: SC4
Special provisions (ADR)	: 182, 274
Limited quantities (ADR)	: 0
Excepted quantities (ADR)	: E2
Packing instructions (ADR)	: P410, IBC05
Special packing provisions (ADR)	: B3
Mixed packing provisions (ADR)	: MP14
Portable tank and bulk container instructions (ADR)	: T3
Portable tank and bulk container special provisions (ADR)	: TP33
Tank code (ADR)	: SGAN
Vehicle for tank carriage	: AT
Transport category (ADR)	: 2
Special provisions for carriage - Packages (ADR)	: V1
Hazard identification number (Kemler No.)	: 48
Orange plates	:
Tunnel restriction code (ADR)	: D/E
EAC code	: 1W

48
3206

- Transport by sea

Special provisions (IMDG)	: 182, 274
Limited quantities (IMDG)	: 0
Excepted quantities (IMDG)	: E2
Packing instructions (IMDG)	: P410
Special packing provisions (IMDG)	: PP31
IBC packing instructions (IMDG)	: IBC05
IBC special provisions (IMDG)	: B2
Tank instructions (IMDG)	: T3
Tank special provisions (IMDG)	: TP33
EmS-No. (Fire)	: F-A
EmS-No. (Spillage)	: S-J
Stowage category (IMDG)	: B
Properties and observations (IMDG)	: Free-flowing hygroscopic powder. Cause burns to skin, eyes and mucous membranes.

- Air transport

PCA Excepted quantities (IATA)	: E2
PCA Limited quantities (IATA)	: Forbidden
PCA limited quantity max net quantity (IATA)	: Forbidden
PCA packing instructions (IATA)	: 466
PCA max net quantity (IATA)	: 15kg
CAO packing instructions (IATA)	: 470

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CAO max net quantity (IATA) : 50kg
Special provisions (IATA) : A3, A84
ERG code (IATA) : 4C

- Inland waterway transport

Classification code (ADN) : SC4
Special provisions (ADN) : 182, 274
Limited quantities (ADN) : 0
Excepted quantities (ADN) : E2
Equipment required (ADN) : PP, EP
Number of blue cones/lights (ADN) : 0

- Rail transport

Classification code (RID) : SC4
Special provisions (RID) : 182, 274
Limited quantities (RID) : 0
Excepted quantities (RID) : E2
Packing instructions (RID) : P410, IBC05
Mixed packing provisions (RID) : MP14
Portable tank and bulk container instructions (RID) : T3
Portable tank and bulk container special provisions (RID) : TP33
Tank codes for RID tanks (RID) : SGAN
Transport category (RID) : 2
Special provisions for carriage – Packages (RID) : W1
Colis express (express parcels) (RID) : CE10
Hazard identification number (RID) : 48

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 ETHOXIDE, 95% is not on the REACH Candidate List

POTASSIUM ETHOXIDE, 95% is not on the REACH Annex XIV List

POTASSIUM ETHOXIDE, 95% is not subject to REGULATION (EU) No 649/2012 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 4 July 2012 concerning the export and import of hazardous chemicals.

POTASSIUM ETHOXIDE, 95% is not subject to Regulation (EC) No 850/2004 of the European Parliament and of the Council of 29 April 2004 on persistent organic pollutants and amending Directive 79/117/EEC

15.1.2. National regulations

Germany

12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV : Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

Netherlands

SZW-lijst van kankerverwekkende stoffen : The substance is not listed

SZW-lijst van mutagene stoffen : The substance is not listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding : The substance is not listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid : The substance is not listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling : The substance is not listed

Denmark

Danish National Regulations : Young people below the age of 18 years are not allowed to use the product

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15.2. Chemical safety assessment

No additional information available

SECTION 16: Other information

Abbreviations and acronyms:

Abbreviations: ND: Not Determined, No Data; NA: Not Applicable; LD: Lethal Dose; LC: Lethal Concentration; ATE: Acute Toxicity Estimates; H: hour; °: °C unless otherwise stated; mm: millimeters Hg, torr; PEL: permissible exposure level; TWA: time weighted average; TLV: threshold limit value; TG: Test Guideline; NIOSH: National Institute for Occupational Safety and Health; IARC: International Agency for Research on Cancer; NTP: National Toxicology Program; HMIS: Hazardous Material Information System; CAS No.: Chemical Abstract Service Registration Number; EC No.: European Commission Registration Number; EC Index No.: European Commission Index Number; OECD: The Organisation for Economic Co-operation and Development; GHS: The Globally Harmonized System of Classification and Labelling; APF: Assigned Protection Factor

Other information : Prepared by safety and environmental affairs.

Full text of H- and EUH-statements:

Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Self-heat. 1	Self-Heating Substances and Mixtures, Category 1
Skin Corr. 1B	Skin corrosion/irritation, Category 1B
H251	Self-heating: may catch fire.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.

SDS EU (REACH Annex II) - Custom

The information contained in this document has been gathered from reference materials and/or Gelest, Inc. test data and is to the best knowledge and belief of Gelest, Inc. accurate and reliable. Such information is offered solely for your consideration, investigation and verification. It is not suggested or guaranteed that the hazard precautions or procedures described are the only ones which exist. Gelest, Inc. makes no warranties, express or implied, with respect to the use of such information and assumes no responsibility therefore. Information on this safety data sheet is not intended to constitute a basis for product specifications.

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