

## Safety Data Sheet

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

SDS Ref.: 932-231120-1 Issue date: 8/23/2021 Version: 3.0

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

## 1.1. Product identifier

Product name : POTASSIUM PERSULPHATE

 $\begin{array}{lll} \mbox{Product code} & : 932\mbox{-}231\mbox{120-1} \\ \mbox{Formula} & : \mbox{K}_2\mbox{S}_2\mbox{O}_8 \\ \end{array}$ 

Synonyms : Dipotassium peroxodisulphate

### 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 : Industrial uses

Oxidizer and catalyst in the production of various chemicals

### 1.2.2. Uses advised against

No additional information available

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

Akkim Kimya Sanayi ve Tic. A.Ş. Merkez Mahallesi, Ak-Kim Sokak 7 77600

T +90 226 815 33 00 - F +90 226 353 25 39

www.akkim.com.tr

### 1.4. Emergency telephone number

Emergency number : +90 226 815 33 00/33112

Country	Organisation/Company	Address	Emergency number	Comment
,	Ulusal Zehir Merkezi (UZEM) Refik Saydam Hıfzıssıhha Merkezi Başkanlığı	Cemal Gürsel Cd. No: 18 Sıhhiye Çankaya 06590 Ankara	114	Information is provided to public and medical personnel on poisoning incidents via 114.

## **SECTION 2: Hazards identification**

## 2.1. Classification of the substance or mixture

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

Oxidising Solids, Category 3

Acute toxicity (oral), Category 4

Skin corrosion/irritation, Category 2

H315

Serious eye damage/eye irritation, Category 2

H319

Respiratory sensitisation, Category 1

H334

Skin sensitisation, Category 1

H317

Specific target organ toxicity — Single exposure, Category 3,

H335

Respiratory tract irritation

Full text of H statements : see section 16

## Adverse physicochemical, human health and environmental effects

May intensify fire; oxidiser. Harmful if swallowed. May cause respiratory irritation. Causes skin irritation. Causes serious eye irritation. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction.

### 2.2. Label elements

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

Hazard pictograms (CLP)





GHS03

GHS07

GHS08

Signal word (CLP) : Danger

Hazardous ingredients : Dipotassium peroxodisulphate

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Hazard statements (CLP) : H272 - May intensify fire; oxidiser.

H302 - Harmful if swallowed.

H315 - Causes skin irritation.

H317 - May cause an allergic skin reaction.

H319 - Causes serious eye irritation.

H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H335 - May cause respiratory irritation.

Precautionary statements (CLP) : P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.

No smokina.

P261 - Avoid breathing dust/fume/gas/mist/vapours/spray.

P280 - Wear protective gloves/protective clothing/eye protection/face protection.

P302+P352 - IF ON SKIN: Wash with plenty of water.

P304+P341 - IF INHALED: if breathing is difficult, remove victim to fresh air and keep at

rest in a position comfortable for breathing.

P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove

contact lenses, if present and easy to do. Continue rinsing.

P403+P233 - Store in a well-ventilated place. Keep container tightly closed. P501 - Dispose of contents/container to hazardous or special waste collection point, in

accordance with local, regional, national and/or international regulation.

### 2.3. Other hazards

No additional information available

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

Name	Product identifier		Classification according to Regulation (EC) No. 1272/2008 [CLP]
Dipotassium peroxodisulphate	(CAS-No.) 7727-21-1 (EC-No.) 231-781-8	> 99	Ox. Sol. 3, H272 Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Resp. Sens. 1, H334 Skin Sens. 1, H317 STOT SE 3, H335

Full text of H-statements: see section 16

### **SECTION 4: First aid measures**

4.4	Decembries	of firet old	MA A A A I I KA A
4.1.	Description	or irrst ard	measures

First-aid measures general : Call a poison center or a doctor if you feel unwell. Never give anything by mouth to an unconscious person. People with over sensibility problems are not allowed to work or be

exposed to the product. In all cases of doubt, or when symptoms persist, seek medical

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Call a poison center or a

doctor if you feel unwell.

First-aid measures after skin contact : Wash skin with plenty of water. Take off contaminated clothing. If skin irritation or rash

occurs: Get medical advice/attention.

First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and

easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

First-aid measures after ingestion : Rinse mouth. Call a poison center or a doctor if you feel unwell.

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

Symptoms/effects after inhalation : May cause respiratory irritation. May cause allergy or asthma symptoms or breathing

difficulties if inhaled.

Symptoms/effects after skin contact : Irritation. May cause an allergic skin reaction.

Symptoms/effects after eye contact : Eye irritation.

### 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 : Water spray. dry chemical powder, alcohol-resistant foam, carbon dioxide (CO2). Dry

powder. Foam.

Unsuitable extinguishing media : Strong water jet.

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

Fire hazard : May intensify fire; oxidiser.

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Reactivity in case of fire : At high temperature may liberate dangerous gases.

Hazardous decomposition products in case of fire : Toxic fumes may be released.

### 5.3. Advice for firefighters

Precautionary measures fire : Approach from upwind. Use water spray or fog for cooling exposed containers. Keep away

from combustible materials.

Firefighting instructions

: Use water spray or fog for cooling exposed containers. Cool adjacent tanks / containers / drums with water jet. Do not allow water to enter the vessels, a violent reaction may occur. Do not enter fire area without proper protective equipment, including respiratory protection. Exercise caution when fighting any chemical fire. Keep upwind. In case of fire: Evacuate

area. Fight fire remotely due to the risk of explosion.

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained

breathing apparatus. Complete protective clothing.

Other information : High temperature decomposition products are harmful by inhalation. Inhalation of vapour

can cause breathing difficulties.

## **SECTION 6: Accidental release measures**

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

General measures : Eliminate every possible source of ignition. Access forbidden to unauthorised personnel.

Use protective clothing. Prevent from entering sewers, basements and workpits, or any

place where its accumulation can be dangerous. Notify authorities if product enters sewers or public waters. Use care in walking on spilled material. Do not inhale vapour.

6.1.1. For non-emergency personnel

Protective equipment : Wear recommended personal protective equipment. Dust formation: dust mask. Wear

suitable protective clothing, gloves and eye or face protection.

Emergency procedures : Ventilate spillage area. No open flames, no sparks, and no smoking. Avoid breathing dust/fume/gas/mist/vapours/spray. Avoid contact with skin and eyes. Do not touch or walk

on the spilled product. Evacuate unnecessary personnel. Mark out the contaminated area with signs and prevent access to unauthorized personnel.

Measures in case of dust release : In case of dust production: protective goggles. Dust mask. In case of vapour formation use

adequate respirator.

### 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". Only qualified personnel equipped with suitable protective equipment may intervene. Wear suitable protective

clothing, gloves and eye/face protection.

Emergency procedures : Avoid contact with skin and eyes. Do not touch spilled material. Evacuate unnecessary personnel. Keep away from combustible material. Keep public away from danger area.

Prevent from entering sewers, basements and workpits, or any place where its accumulation can be dangerous. Ventilate area. Stop leak if safe to do so.

### 6.2. Environmental precautions

Methods for cleaning up

Avoid release to the environment. Do not allow to enter drains or water courses. Do not discharge into drains or waterways without neutralizing.

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

For containment : Comply with the safety intructions. Soak up with inert absorbent material (for example sand, sawdust, a universal binder, silica gel). Contain any spills with dikes or absorbents to

nrevent migration and entry into sewers or streams

prevent migration and entry into sewers or streams.

: Mechanically recover the product. Notify authorities if product enters sewers or public waters. Clean up any spills as soon as possible, using an absorbent material to collect it. Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Sweep or shovel spills into appropriate container for disposal. Minimise

generation of dust.

Other information : Dispose of materials or solid residues at an authorized site. Dispose of contaminated

materials in accordance with current regulations.

## 6.4. Reference to other sections

Concerning personal protective equipment to use, see section 8. Concerning disposal elimination after cleaning, see section 13. For further information refer to section 13.

### SECTION 7: Handling and storage

## 7.1. Precautions for safe handling

Additional hazards when processed

: Use adequate ventilation to keep vapour concentrations below applicable standard. Take all necessary technical measures to avoid or minimize the release of the product on the workplace.

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Precautions for safe handling

: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Wear personal protective equipment. Use only outdoors or in a well-ventilated area. Avoid breathing dust/fume/gas/mist/vapours/spray. Avoid contact with skin and eyes. Avoid dust formation. Avoid prolonged and repeated contact with skin. Contaminated work clothing should not be allowed out of the workplace. Do not spray on an open flame or other ignition source. Floors, walls and other surfaces in the hazard area must be cleaned regularly. Keep valves and fittings free from oil and grease. Take all necessary technical measures to avoid or minimize the release of the product on the workplace. Take precautionary measures against static discharge.

Hygiene measures

: Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product. Contaminated work clothing should not be allowed out of the workplace.

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

Technical measures

: Comply with applicable regulations. Containers which are opened should be properly resealed and kept upright to prevent leakage. Ensure adequate ventilation, especially in confined areas.

Storage conditions

: Store locked up. Store in a well-ventilated place. Keep container tightly closed. Keep cool.

Incompatible products

: Strong acids. Strong bases. Strong oxidizing agents. Peroxides. Explosives.

Incompatible materials

: combustible materials. Extremely high or low temperatures.

Heat and ignition sources

: Do not smoke. KEEP SUBSTANCE AWAY FROM: ignition sources. heat sources.

Information on mixed storage

: Keep away from food, drink and animal feeding stuffs.

Storage area

: Avoid: Extremely high or low temperatures. Heat and ignition sources.

### 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. Avoid contact with skin, eyes and clothing. Carry out operations in the open/under local exhaust/ventilation or with respiratory protection. Consider work permit system e.g. for maintenance activities. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. In the event that dust and/or fine particles are generated with this product, it is prudent to minimize prolonged inhalation exposure to these forms not to exceed the occupational exposure limit. Measure concentrations regularly, and at the time of any change occuring in conditions likely to have consequences on workers exposure.

### Personal protective equipment:

Corrosionproof clothing. Gloves. Safety glasses. Gas mask.

### Hand protection:

Protective gloves. EN 374

### Eye protection:

Safety glasses. EN 166. Where excessive dust may result, wear goggles. Safety glasses

## Skin and body protection:

Wear suitable protective clothing. In case of dust production: dustproof clothing. In case of dust production: head/neck protection. Where contact with eyes or skin is likely, wear suitable protection

## Respiratory protection:

[In case of inadequate ventilation] wear respiratory protection. Dust production: dust mask with filter type P1. Where excessive vapour may result, wear approved mask

### Personal protective equipment symbol(s):









## Environmental exposure controls:

Avoid release to the environment.

### Consumer exposure controls:

Do not eat, drink or smoke during use. Always wash hands after handling the product. Avoid contact with skin and eyes. Avoid contact during pregnancy/while nursing.

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### Other information

Always wash hands after handling the product. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

## **SECTION 9: Physical and chemical properties**

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

Physical state : Solid
Appearance : Crystals
Molecular mass : 270.3 kg/kmol
Colour : White
Odour : Odourless

Odour threshold : No data available

pH : 3.0 - 7.0 (5% aq. solution)

Relative evaporation rate (butylacetate=1) : No data available Melting point : No data available Freezing point : Not applicable Boiling point : No data available Flash point : Not applicable Auto-ignition temperature : Not applicable : No data available Decomposition temperature Flammability (solid, gas) : Non flammable. Vapour pressure : No data available Relative vapour density at 20 °C No data available Relative density : No data available Density : 2.48 kg/m<sup>3</sup>

Solubility : 6 g/100 g water @25°C, 17 g/100 g water @50°C

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 : Not applicable

### 9.2. Other information

No additional information available

## **SECTION 10: Stability and reactivity**

### 10.1. Reactivity

May cause or intensify fire; oxidiser.

## 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

## 10.4. Conditions to avoid

Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.

### 10.5. Incompatible materials

Combustible materials. Strong acids. Strong bases. Strong oxidizing agents. Peroxides. Explosives.

## 10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## **SECTION 11: Toxicological information**

## 11.1. Information on toxicological effects

Acute toxicity (oral) : Harmful if swallowed.

Acute toxicity (dermal) : Not classified

Acute toxicity (inhalation) : Not classified

## **POTASSIUM PERSULPHATE**

ATE CLP (oral) 500 mg/kg bodyweight

### Dipotassium peroxodisulphate

LD50 oral 1130 mg/kg

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LD50 dermal	> 2000 mg/kg
Skin corrosion/irritation	: Causes skin irritation.
	pH: 3 - 7 (5% aq. solution)
Serious eye damage/irritation	: Causes serious eye irritation.
	pH: 3 - 7 (5% aq. solution)
Respiratory or skin sensitisation	: May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction.
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: May cause respiratory irritation.
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified

## **SECTION 12: Ecological information**

## 12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms nor to cause long-term

adverse effects in the environment.

Hazardous to the aquatic environment, short-term

(acute)

: Not classified

Hazardous to the aquatic environment, long-term

(chronic)

: Not classified

Dipotassium peroxodisulphate	
LC50 fish 1	76.3 mg/l
LC50 fish 2	107.6 mg/l
EC50 Daphnia 1	120 mg/l
EC50 Daphnia 2	11 mg/l

## 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

Regional legislation (waste)

: Disposal must be done according to official regulations. Waste Management Regulation

published in the Official Journal numbered 29314 on April 2, 2015. Regulation on Incineration of Waste Materials published in the Official Journal numbered 27721 on

October 6, 2010.

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

Do not remove as household garbage.

Sewage disposal recommendations : Disposal must be done according to official regulations.

Additional information : Empty containers should be taken for recycling, recovery or waste in accordance with local

regulation.

## **SECTION 14: Transport information**

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

ADR	IMDG	IATA	ADN	RID
14.1. UN number				
UN 1492	UN 1492	UN 1492	UN 1492	UN 1492
14.2. UN proper shipping name				
POTASSIUM PERSULPHATE	POTASSIUM PERSULPHATE	Potassium persulphate	POTASSIUM PERSULPHATE	POTASSIUM PERSULPHATE

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Transport document descr	iption			
UN 1492 POTASSIUM PERSULPHATE, 5.1, III, (E)	UN 1492 POTASSIUM PERSULPHATE, 5.1, III	UN 1492 Potassium persulphate, 5.1, III	UN 1492 POTASSIUM PERSULPHATE, 5.1, III	UN 1492 POTASSIUM PERSULPHATE, 5.1, III
14.3. Transport hazard	class(es)			
5.1	5.1	5.1	5.1	5.1
5.1	5.1	5.1	5.1	5.1
14.4. Packing group				
III	III	III	III	III
14.5. Environmental haz	zards			
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
No supplementary information	No supplementary information available			

## 14.6. Special precautions for user

### **Overland transport**

Classification code (ADR) : O2
Limited quantities (ADR) : 5kg
Excepted quantities (ADR) : E1

Packing instructions (ADR) : P002, IBC08, LP02, R001

Special packing provisions (ADR) : B3
Mixed packing provisions (ADR) : MP10
Portable tank and bulk container instructions (ADR) : T1

(ADR)

Portable tank and bulk container special provisions

(ADR)

Tank code (ADR) : SGAV
Tank special provisions (ADR) : TU3
Vehicle for tank carriage : AT
Transport category (ADR) : 3

Special provisions for carriage - Bulk (ADR) : VC1, VC2, AP6, AP7

Special provisions for carriage - Loading,

unloading and handling (ADR)

Hazard identification number (Kemler No.) : 50

Orange plates

50 1492

: TP33

: CV24

Tunnel restriction code (ADR) : E

### Transport by sea

: 5 kg Limited quantities (IMDG) Excepted quantities (IMDG) : E1 Packing instructions (IMDG) : P002, LP02 : IBC08 IBC packing instructions (IMDG) : B3 IBC special provisions (IMDG) Tank instructions (IMDG) : T1 : TP33 Tank special provisions (IMDG) : F-A EmS-No. (Fire) EmS-No. (Spillage) : S-Q Stowage category (IMDG) : A

Segregation (IMDG) : SG39, SG49

Properties and observations (IMDG) : White crystals or powder. Soluble in water. Mixtures with combustible material are sensitive to friction and are liable to ignite. Reacts fiercely with cyanides when heated or by friction.

May form explosive mixture with powdered metals or ammonium compounds.

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### Air transport

PCA Excepted quantities (IATA) : E1 PCA Limited quantities (IATA) : Y546 PCA limited quantity max net quantity (IATA) : 10kg PCA packing instructions (IATA) : 559 PCA max net quantity (IATA) : 25kg CAO packing instructions (IATA) : 563 CAO max net quantity (IATA) : 100kg Special provisions (IATA) : A803 ERG code (IATA) : 5L

Inland waterway transport

Classification code (ADN) : O2
Limited quantities (ADN) : 5 kg
Excepted quantities (ADN) : E1
Equipment required (ADN) : PP
Number of blue cones/lights (ADN) : 0

Rail transport

Classification code (RID) : O2
Limited quantities (RID) : 5kg
Excepted quantities (RID) : E1

Packing instructions (RID) : P002, IBC08, LP02, R001

Special packing provisions (RID) : B3

Mixed packing provisions (RID) : MP10

Portable tank and bulk container instructions (RID) : T1

Portable tank and bulk container special provisions : TP33

RID)

Tank codes for RID tanks (RID) : SGAV
Special provisions for RID tanks (RID) : TU3
Transport category (RID) : 3

Special provisions for carriage – Bulk (RID) : VC1, VC2, AP6, AP7

Special provisions for carriage - Loading, : CW24

unloading and handling (RID)

Colis express (express parcels) (RID) : CE11
Hazard identification number (RID) : 50

### 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

Contains no REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

Contains no substance 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.

Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

### 15.1.2. National regulations

### Germany

Reference to AwSV : Water hazard class (WGK) 1, Slightly hazardous to water (Classification according to

AwSV, Annex 1)

12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV

: Is not subject of the 12. BlmSchV (Hazardous Incident Ordinance)

## 15.2. Chemical safety assessment

No chemical safety assessment has been carried out

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SECTION 16: Other information		
Abbreviations and acronyms:		
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways	
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road	
ATE	Acute Toxicity Estimate	
BCF	Bioconcentration factor	
DMEL	Derived Minimal Effect level	
DNEL	Derived-No Effect Level	
EC50	Median effective concentration	
IARC	International Agency for Research on Cancer	
IATA	International Air Transport Association	
IMDG	International Maritime Dangerous Goods	
LC50	Median lethal concentration	
LD50	Median lethal dose	
LOAEL	Lowest Observed Adverse Effect Level	
NOAEC	No-Observed Adverse Effect Concentration	
NOAEL	No-Observed Adverse Effect Level	
NOEC	No-Observed Effect Concentration	
OECD	Organisation for Economic Co-operation and Development	
PBT	Persistent Bioaccumulative Toxic	
PNEC	Predicted No-Effect Concentration	
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail	
SDS	Safety Data Sheet	
STP	Sewage treatment plant	
TLM	Median Tolerance Limit	
vPvB	Very Persistent and Very Bioaccumulative	
Data sources	: Classification according to Classification, Labelling and Packaging of Substances and Mixtures (SEA) Regulation published in the Official Journal numbered 28848 on December 11, 2013. ECHA (European Chemicals Agency). Supplier's safety documents.	
Other information	: The information in this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This SDS was prepared and is to be used only for this product. If the product is used as a component in another product, this SDS information may not be applicable.	

Full text of H- and EUH-statements:		
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4	
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2	
Ox. Sol. 3	Oxidising Solids, Category 3	
Resp. Sens. 1	Respiratory sensitisation, Category 1	
Skin Irrit. 2	Skin corrosion/irritation, Category 2	
Skin Sens. 1	Skin sensitisation, Category 1	
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation	
H272	May intensify fire; oxidiser.	
H302	Harmful if swallowed.	
H315	Causes skin irritation.	
H317	May cause an allergic skin reaction.	
H319	Causes serious eye irritation.	

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H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	May cause respiratory irritation.

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