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♦ Identification of the substance/ preparationAnd of the company/undertaking

Identification of the substance or preparation

Trade name: Potassium persulfate

Use of the substance/ preparation

Chemical basic material For industrial purposes only

Company/undertaking identification

Company name: DALIAN F.T.Z.GREAT INDUSTRY & TRADE CO.,LTD.

Street/POB-No.: 1207A Huineng Building Dalian F.T.Z.China

Telephone: 0086-411-39552835 Telefax: 0086-411-39266880

♦ Hazards identification

Classification according to directive 67/548/EEC:





Xn

oxidizing harmful

O; R8 Contact with combustible material may cause fire.

Xn; R22 Harmful if swallowed.

Xi; R36/37/38 Irritating to eyes, respiratory system and skin.

Sens; R42/43 May cause sensitization by inhalation and skin contact.

Classification according EC regulation 1272/2008 (CLP):







Danger

STOT SE 3; H335 May cause respiratory irritation.
Skin Irrit. 2; H315 May cause an allergic skin reaction.

Skin Sens. 1; H317 Causes skin irritation.

Resp. Sens. 1; H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Acute Tox. 4; H302 Harmful if swallowed.

Eye Irrit. 2; H319 Causes serious eye irritation.

Ox. Sol. 3; H272 May intensify fire; oxidiser.

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♦ Composition/Information on ingredients

Chemical characterization (substance)

K2-S2O8 = KO3-O-O-SO3K

Potassium Persulfate

CAS-Number: 7727-21-1
EINECS-Number: 231-781-8
RTECS-Number: TT5900000
MDL number: MFCD00011388

♦ First-aid measures

After inhalation: Move victim to fresh air. Make sure he/she is warm and comfortable.

If the casualty has difficulty breathing, call a doctor immediately. Where appropriate artificial

ventilation.

If victim is at risk of losing consciousness, position and transport on their side.

In case of skin contact: Take off immediately all contaminated clothing.

After contact with skin, wash immediately with plenty of water.

In case of skin reactions, consult a physician.

After eye contact: Immediately flush eyes with plenty of flowing water for 10 to 15 minutes holding eyelids apart.

Subsequently consult an ophthalmologist.

After swallowing: Rinse mouth immediately and drink plenty of water.

Avoid vomiting. Immediately get medical attention.

Information to phy sician:

Treat symptomatically.

Subsequent observance for pneumonia and lung oedema.

Monitor electrolytes and renal function.

♦ Firefighting measures

Suitable extinguishing media:

Product is non-combustible. Extinguishing materials should therefore be selected according to

surroundings.

Special exposure hazards arising from the substance or preparation itself, its combustion products or from resulting gases:

Oxidizing. Contact with combustible material may cause fire.

In case of strong heating: Formation of sulphur dioxide.

Special protective equipment for fire fighters:

Wear a self-contained breathing apparatus and chemical protective clothing.

Additional information: Hazchem-Code: 1Z

Cool endangered containers with water spray and, if possible, remove from danger zone.

Heating causes rise in pressure with risk of bursting.

Contaminated fire-fighting water must be collected separately. Do not allow water used to

extinguish fire to enter drains, ground or waterways. Treat runoff as hazardous.

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♦ Accidental release measures

Personal precautions:

Wear suitable protective clothing. Avoid contact with the substance.

Do not breathe dust. Provide adequate ventilation. Keep away from combustible material.

Measures to protect the environment:

Do not allow to penetrate into soil, waterbodies or drains.

If necessary notify appropriate authorities.

Methods for cleaning up: Avoid generation of dust. Take up carefully when dry.

Small quantities: Neutralization with Sodium thiosulphate-solution.

Place in appropriate containers for disposal. Final cleaning.

Additional advice: Never add other substances or waste material to product residue.

Move product residue to a safe place and dispose of properly.

♦ Handling and storage

Handling

Advices on safe handling

Provide adequate ventilation, and local exhaust as needed. Vent dust from the work area.

Open and handle container with care. Do not allow containers to stand open.

Avoid contact with skin, eyes, and clothing. Do not breathe dust.

Precautions against fire and explosion:

Keep away from sources of ignition - No smoking. Do not weld.

Storage

Requirements for storerooms and containers:

Store container tightly closed in a dry and cool place. Store at room temperature. Protect from light and heat. Qualified materials: Glass, ceramic, PVC, PE, PP

hints on joint storage:

Keep away from combustible material.

Do not store together with food.

5.1B= Oxidising substances Storage class:

♦ Exposure controls / Personal protection

Exposure limit values

Limit value Type Great Britain: WEL-TWA 1 mg/m³

Additional information:

Exposure controls

Provide good ventilation and/or an exhaust system in the work area. The substance should only Be handled in closed apparatus or systems.

See also information in chapter section storage.

Occupational exposure controls

Respiratory protection:

In case of dust: Particulates filter P2/P3, identification colour white, according to EN 143.

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Hand protection: Protective gloves according to EN 374.

Glove material: Nitrile rubber or chloroprene rubber.

Breakthrough time: >480 min.

Observe glove manufacturer's instructions concerning penetrability and breakthrough time.

Eye protection: Tightly sealed safety glasses according to EN 166.

Body protection: flame retardant protective clothing

General protection and hy giene measures:

Take off immediately all contaminated clothing.

When using do not eat, drink or smoke. Wash hands before breaks and after work.

Safety shower and eye wash station should be easily accessible to the work area.

♦ Physical and chemical properties

Appearance

Phy sical state: solid
Colour: white
Odour: odourless

Important health, safety and environmental information

Boiling temperature / boiling range (Decomposition)

Melting point / melting range: (Decomposition) 180 °C

Flash point / f lash point range: not combustible

Flammability: oxidizing

 $\begin{array}{lll} \text{Density:} & \text{at } 20 \text{ }^{\circ}\text{C: } 1,1\text{g/cm}^{3} \\ \text{pH value:} & \text{at } 20 \text{ }^{\circ}\text{C, } 100 \text{ g/L: } 4 \\ \text{Water solubility:} & \text{at } 20 \text{ }^{\circ}\text{C: } 50\text{g/L} \\ & \text{at } 60 \text{ }^{\circ}\text{C: } 210\text{g/L} \\ \text{Thermal decomposition:} & \text{approx. } 170 \text{ }^{\circ}\text{C} \end{array}$

Additional information

Molecular weight: 270.32g/mol

♦ Stability and reactivity

Conditions to avoid: Keep away from heat and sources of ignition. Protect from moisture contamination.

Materials to avoid: Accelerators, strong acids and bases, heavy metal salts, reduction mediums.

Avoid impurities(e.g. Rust,dust,ash), risk of decomposition.

Hazardous decomposition products

Build-up of dangerous/toxic fumes possible in cases of fire/high temperature.

Thermal decomposition: approx. 170 °C

Additional information: Method: SADT(UN test H.4)

Observable decomposition at temperature >60°C(product in delivery form)

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♦ Toxicological information

Toxicological Tests:

Acute toxicity: LD50 Rat, Dose: 825mg/kg

After inhalation: LC50 Rat

Exposure time: 1h Dose:>42,9 mg/l

After swallowing: harmful

In case of skin contact: strongly irritant
After eye contact: strongly irritant

♦ Ecological information

Ecotoxicity effects

Toxicity to fish: LC50

Dose: 76,3mg/l

Exposure time:96h

Toxicity to bacteria: EC50

Dose:83.7mg/l xposure time:72/h

Acute and prolonged toxicity for

Aquatic invertebrates: EC50 Species

Species: Daphnia Dose:120mg/l Exposure time:48h

Water contaminating class(Germany):

WGK 1 slightly water endangering

VwVwS(German water pollution authority), appendix

♦ Disposal considerations

Product

Waste key number 160904* = Oxidising substances

* = Evidence for disposal must be provided.

Recommendation: Special waste. Dispose of waste according to applicable legislation.

Contaminated packaging

Recommendation: Dispose of waste according to applicable legislation.

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♦ Transport information

Land transport (ADR/RID)

Warning board: ADR/RID: Kemmler-number 50, UN number 1492

Product designation: UN 1492, POTASSIUM PERSULPHATE

ADR/RID: Class 5.1, Code: O2

Packaging group:

 $\begin{array}{lll} \mbox{Hazard label:} & 5.1 \\ \mbox{Limited quantities:} & LQ12 \\ \mbox{EQ:} & E1 \end{array}$

Contaminated packaging: Instructions: P002 IBC08 LP02 R001

Contaminated packaging: Special provisions:

Special provisions for packing together:

Portable tanks: Instructions:

Portable tanks: Special provisions:

Tank coding:

Tunnel restriction code:

B3

MP10

TP33

TSA

TOP33

TENER CODING:

TUNNEL TUNNEL TENER CODING:

TENER COD

Sea transport (IMDG)

UN number: 1492

Proper shipping name: POTASSIUM PERSULPHATE

IMDG: Class 5.1, Code -

Packing Group: III F-A, S-Q

Special provisions: Limited quantities: 5 kg
EQ: E1

Contaminated packaging: Instructions: P002, LP02

Contaminated packaging: Provisions:

 IBC: Instructions:
 IBC08

 IBC: Provisions:
 B3

 Tank instructions: IMO:

 Tank instructions: UN:
 T1

 Tank instructions Provisions:
 TP33

 Stowage and segregation:
 Category A.

Properties and observations: 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.

Marine Pollutant: No

Air transport (IATA)

UN/ID number: 1492

Proper shipping name: POTASSIUM PERSULPHATE

ICAO/IATA: Class 5.1
Hazard Oxidizer
PG III

EQ E1

Passenger Ltd.Qty .: Y516 - Maximum quantity: 10 kg
Passenger: 516 - Maximum quantity: 25 kg
Cargo: 518 - Maximum quantity: 100 kg

ERG 5L



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♦ Regulatory information

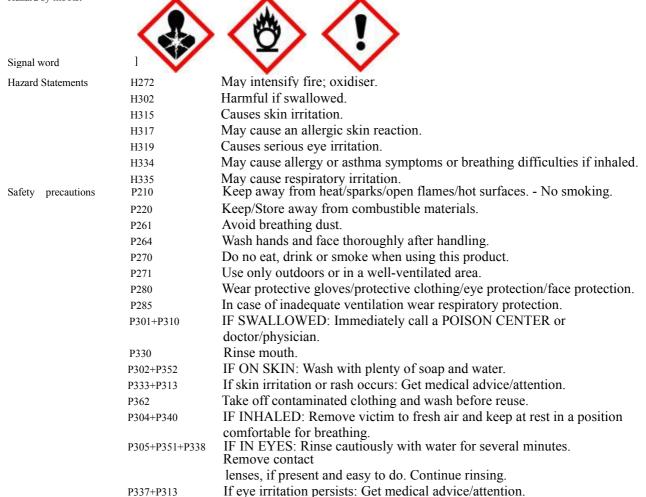
Labelling (67/548/EEC or 1999/45/EC)

Code letter and hazard sy mbol:

Code letter and nazara s	y 111001.	
	O	oxidizing
	Xn	harmful
R phrase(s):	R 8	Contact with combustible material may cause fire.
	R 22	Harmful if swallowed.
	R 36/37/38	Irritating to eyes, respiratory system and skin.
	R 42/43	May cause sensitization by inhalation and skin contact.
S phrase(s):	S 22	Do not breathe dust.
	S 24	Avoid contact with skin.
	S 26	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
	S 37	Wear suitable gloves.
	S 45	In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

Labelling (EU-GHS)

Hazard sy mbols:



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P312 Call a POISON CENTER or doctor/physician if you feel unwell.
P403+P233 Store in a well-ventilated place. Keep container tightly closed.

P405 Store locked up.

P501 Dispose of contents/container to hazardous or special waste collection

point

National regulations

National regulations - Great Britain

Hazchem-Code: 1Z

National regulations - Germany

Storage class: 5.1B= Oxidising substances

Water Hazard Class: 1 = slightly hazardous to water (WGK catalog number 1352)

Incident regulation: Nr. 3
Informations on working limitations:

Observe employment restrictions concerning young persons.

Observe employment restrictions for expectant or nursing mothers.

National regulations - USA



TSCA Inventory: listed TSCA HPVC: not listed NFPA Hazard Rating: Fire: 0 (Minimal) Reactivity: 2 (Moderate) HMIS Version III Rating: Health: 2 (Moderate)

Health: 2 (Moderate) Flammability: 0 (Minimal) Physical Hazard: 2 (Moderate)

Personal Protection: X = Consult your supervisor



♦ Other information

Group that issues data sheet

Contact person: see chapter 1, department responsible for information.

The information in this data sheet has been established to our best knowledge and was up-to-date at time of revision. It does not represent a guarantee for the properties of the product described in terms of the legal warranty regulations.

End of MSDS