

1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND OF THE COMPANY / UNDERTAKING

Trade name: Potassium Thiosulphate 50% solution

Relevant identified uses of the substance or mixture and uses advised against:

Agriculture, forestry, fishery.

Application of the substance/ the mixture: The product has many industrial and professional applications.

Uses advised against: Processes involving extreme heat uses advised against.
Processes involving the use of incompatible substances- refer to section 10.
The product is intended exclusively for industrial and professional use.

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2. HAZARDS IDENTIFICATION

Classification of the substance or mixture:

Classification according to Regulation (EC) No 1272/2008: The product is not classified, according to the CLP regulation.

Label elements:

Labelling according to Regulation (EC) No 1272/2008: Void.

Hazard pictograms: Void.

Signal word: Void.

Hazard statements: Void.

Other hazards:

Results of PBT and vPvB assessment:

PBT: Not applicable.

vPvB: Not applicable.

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3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical characterisation:

Substances:

CAS No. description: 10294-66-3 Potassium Thiosulphate

Identification number(s):

EC number: 233-666-8

Chemical characterisation:

Mixtures:

Description: An aqueous solution of potassium thiosulphate.

Dangerous components: Void.

Additional information: For the wording of the listed hazard phrases refer to section 16.

4. FIRST AID MEASURES

Description of first aid measures:

General information: No special measures required.

After inhalation: Supply fresh air; consult doctor in case of complaints.

After skin contact: Immediately rinse with water.

If skin irritation continues, consult a doctor.

After eye contact: Check for and remove any contact lenses.

Rinse opened eye for several minutes under running water. Then consult a doctor.

After swallowing: Rinse out mouth and then drink plenty of water.

Do not induce vomiting; call for medical help immediately.

If vomiting occurs spontaneously, keep head below hips to prevent aspiration.

Call a doctor immediately.

Most important symptoms and effects, both acute and delayed: No further relevant information available.

Indication of any immediate medical attention and special treatment needed: No further relevant information available.

5. FIRE-FIGHTING MEASURES

Extinguishing media:

Suitable extinguishing agents: Use fire extinguishing methods suitable to surrounding conditions.

Special hazards arising from the substance or mixture:

During heating or in case of fire poisonous gases are produced.

Not combustible. Gives off irritating or toxic fumes (or gases) in a fire.

Advice for fire-fighters:

Protective equipment: Wear self-contained respiratory protective device.

Wear fully protective suit.

Do not inhale explosion gases or combustion gases.

Additional information: Cool endangered receptacles with water spray.

[cont...]

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures: Ensure adequate ventilation.

Environmental precautions: Do not allow product to reach sewage system or any water course in the undiluted form.

Methods and material for containment and cleaning up: Absorb with liquid-binding material (sand, diatomite, acid binders, sawdust).
Send for recovery or disposal in suitable receptacles.

Reference to other sections: No dangerous substances are released.

7. HANDLING AND STORAGE

Precautions for safe handling: Do not mix with acids.
Prevent formation of aerosols.
Ensure good ventilation/exhaustion at the workplace.

Information about fire- and explosion protection: Protect from heat.

Conditions for safe storage, including any incompatibilities:

Storage:

Requirements to be met by storerooms and receptacles: Store in a cool location.

Information about storage in one common storage facility: Do not store together with acids.

Further information about storage conditions: Store in cool, dry conditions in well-sealed receptacles.
Protect from frost.

Specific end use(s): No further relevant information available.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Additional information about design of technical facilities: No further data; see item 7.

Control parameters:

Ingredients with limit values that require monitoring at the workplace:

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

DNELs: Workers- Hazard via inhalation route.
Systemic effects.
Long term exposure.

DNEL (Derived No Effect Level): 449 mg/m³

General Population- Hazard via inhalation route.
Systemic effects.
Long term exposure.

DNEL (Derived No Effect Level): 133 mg/g³

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General Population- Hazard via oral route.

Systemic effects.

Long term exposure.

DNEL (Derived No Effect Level): 17 mg/kg bw/day

PNECs:

PNEC aqua (fresh water): 1 mg/L

PNEC aqua (marine water): 0.1 mg/L

PNEC STP: 128.3 mg/L

Additional information: The lists valid during the making were used as basis.

Exposure controls:

Personal protective equipment: Select PPE appropriate for the operations taking place taking into account the product properties.

General protective and hygienic measures: Wash hands before breaks and at the end of work.

Avoid contact with the eyes.

Avoid close or long-term contact with the skin.

Do not eat, drink, smoke or sniff while working.

Do not inhale gases/ fumes/ aerosols.

Respiratory protection: Not necessary if room is well-ventilated.

Use suitable respiratory protective device in case of sufficient ventilation.

Protection of hands: The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.

Material of gloves: The selection of the suitable gloves does not only depend of the material, but also on further marks of quality and varies from manufacturer to manufacturer.

Penetration time of glove material: The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye protection: Safety glasses.

Body protection: Protective work clothing.

Body protection must be chosen depending on product properties, activity and possible exposure.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties:

General information:

Appearance:

Form: Fluid.

Colour: White.

Odour: Odourless.

Odour threshold: Not determined.

pH-value: Not determined.

Change in condition:

Melting point/ freezing point: Undetermined.

Initial boiling point and boiling range: Undetermined.

[cont...]

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Flash point:	Cannot support combustion.
Flammability (solid, gas):	Not applicable.
Decomposition temperature:	Not determined.
Auto-ignition temperature:	Product is not self-igniting.
Explosive properties:	Product does not present an explosion hazard.
Explosion limits:	
Upper:	Not determined.
Lower:	Not determined.
Vapour pressure at 20°C:	23 hPa
Density at 20°C:	1.5 g/cm ³
Relative density:	Not determined.
Vapour density:	Not determined.
Evaporation rate:	Not determined.
Solubility in/ Miscibility with water:	Fully miscible.
Partition coefficient: n-octanol/water:	Not determined.
Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
Other information:	Note: The physical data presented above are typical values and should be construed as a specification.

10. STABILITY AND REACTIVITY

Reactivity: No further relevant information available.

Chemical stability:

Thermal decomposition/ conditions to be avoided: No decomposition if used and stored according to specifications.
To avoid thermal decomposition do not overheat.

Possibility of hazardous reactions: The reaction with oxidizing agents (e.g. halogens, nitrates, nitrites, oxides) can be vigorous and exothermic.
Sulphur dioxide is produced when reacted with acids.
Solids upon evaporation decompose when heated; products include hydrogen sulphide, sulphur dioxide, sulphur trioxide. Explodes violently if mixed with powdered sodium nitrite and heated.

Conditions to avoid: No further relevant information available.

Incompatible materials: Substances specifically listed in section 10.3 as incompatible.
Strong acids and oxidising agents.
Strong bases.
Sodium nitrite.

Hazardous decomposition products: Hydrogen sulphide.
Sulphur oxides (S_xO_y).
Metal oxide.

[cont...]

11. TOXICOLOGICAL INFORMATION

Information on toxicological effects:

Acute toxicity: Based on available data, the classification criteria are not met.

LD/LC50 values relevant for classification:

10294-66-3 Potassium thiosulphate:

Oral	LD50	>2000 mg/kg (rat)
Dermal	LD50	>2000 mg/kg (rabbit)

Primary irritant effect:

Skin corrosion/ irritation: Based on available data, the classification criteria are not met.

Serious eye damage/ irritation: Based on available data, the classification criteria are not met.

Respiratory or skin sensitisation: Based on available data, the classification criteria are not met.

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction): Based on available data, the classification criteria are not met.

Germ cell mutagenicity: Based on available data, the classification criteria are not met.

Carcinogenicity: Based on available data, the classification criteria are not met.

Reproductive toxicity: Based on available data, the classification criteria are not met.

STOT-single exposure: Based on available data, the classification criteria are not met.

STOT-repeated exposure: Based on available data, the classification criteria are not met.

Aspiration hazard: Based on available data, the classification criteria are not met.

12. ECOLOGICAL INFORMATION

Toxicity:

Aquatic toxicity:

10294-66-3 Potassium thiosulphate:

EC50	174 mg/kg (daphnia)
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Persistence and degradability: No further relevant information available.

Bioaccumulative potential: Product is not expected to bioaccumulate.

Mobility in soil: No further relevant information available.

Additional ecological information:

General notes: Water hazard class 1 (German Regulation) (Self-assessment): Slightly hazardous for water.
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

Results of PBT and vPvB assessment:

PBT: Not applicable.

vPvB: Not applicable.

Other adverse effects: No further relevant information available.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods:

Recommendation:

Recommended Hierarchy of Controls: Minimise waste.

- Reuse if not contaminated.
- Recycle, if possible; or
- Safe disposal (if all else fails).

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

Contact waste processors for recycling information.

Used, degraded or contaminated product may be classified as hazardous waste. Anyone classifying hazardous waste and determining its fate must be qualified in accordance with state and international legislation.

European waste catalogue:

Waste key numbers in accordance with the European Waste Catalogue (EWC) are origin-referred defined. Since this product is used in several industries, no waste key can be provided by the supplier. The waste key number should be determined in arrangement with your waste disposal partner or the responsible authority.

Uncleaned packaging:

Recommendation:

- Container remains hazardous when empty. Continue to observe all precautions.
- Containers, even those that are "empty", may contain residues that can develop hazardous gases and vapours upon heating. Do not cut, drill, grind, weld or perform similar operations on or near empty containers.
- Do not mix with other waste streams.
- Disposal must be made according to official regulations.

Recommended cleansing agents: Water, if necessary together with cleansing agents.

14. TRANSPORT INFORMATION

UN number:

ADR, ADN, IMDG, IATA: Void.

UN proper shipping name:

ADR, ADN, IMDG, IATA: Void.

Transport hazard class(es):

ADR, ADN, IMDG, IATA: Void.

Packing group:

ADR, ADN, IMDG, IATA: Void.

Environmental hazards:

Marine pollutant: No.

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Special precautions for user: Not applicable.

Transport in bulk according to Annex II of Marpol and the IBC Code: Not applicable.

Transport/ Additional information: Not dangerous according to the above specifications.

UN "Model Regulation": Void.

15. REGULATORY INFORMATION

Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

Note: The regulatory information given above only indicates the principal regulations specifically applicable to the product described in the safety data sheet. The user's attention is drawn to the possible existence of additional provisions which complete these regulations. Refer to all applicable national, international and local regulations or provisions.

16. OTHER INFORMATION

Legal disclaimer: The information contained in this SDS does not constitute a risk assessment, and should not replace the user's own assessment of risks as required by other health and safety legislation. This advice is given by Nexchem Ltd who accept no legal liability for it except otherwise provided by law. The information contained herein is based on the present state of our knowledge and is intended to describe our products from the point of view of safety requirements. It should not therefore be construed as guaranteeing specific properties.