1. Identification of the substance/preparation and of the company

1.1. Product identifier

Product Name: Potassium tetrathionate
Catalogue Number: M6007
CAS Number: 13932-13-3
EC Number: 237-702-3
REACH Registration Number: A registration number is not available for this substance as the substance or its uses are exempted from registration, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline.

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

No further relevant information available.
Application of the substance/the preparation
Laboratory chemical
Biochemistry

1.3. Details of the supplier of the safety data sheet

Manufacturer /Supplier:
Genaxxon bioscience GmbH, Söflinger Str. 70, 89077 Ulm/Germany.
Tel.: +49 (0)731 3608 123, info@genaxxon.com

Further information available from: General Management
Emergency telephone number: +49 (0)731 3608 123 (Monday till Friday: 7:30 – 18:30 o'clock)

NOTE: If this product is a kit or supplied with more than one material, please refer to the MSDS for each component for hazard information.

Product Use:
This product is for laboratory research use only and are not intended for human or animal diagnostics, therapeutics or other clinical uses.

2. Hazardous identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

Skin Irrit. 2	H315	Causes skin irritation.
Eye Irrit. 2	H319	Causes serious eye irritation.
STOT 3	H335	May cause respiratory irritation.

2.2. Label elements

Labelling according to Regulation (EC) No 1272/2008
The product is classified and labeled according to the CLP regulation.
Pictogram(s)



GHS07

Signal word Danger

Hazard determining components of labelling:
Potassium tetrathionate
Hazard statement(s)
H315: Causes skin irritation.
H319: Causes serious eye irritation.
H335: May cause respiratory irritation.

Precautionary statements

P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Other hazards
Result of PBT and vPvB assessment
The substance does not have endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605. Substance does not meet the criteria for PBT or vPvB in accordance with Annex XIII of Regulation (EC) No. 1907/2006 (REACH) as amended. Does not contain any PMB or vPvB components.

3. Composition/information on ingredients

3.1. Chemical characterisation: Substances

Hazardous ingredients according to Regulation (EC) No 1272/2008

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Component		Classification	Concentration
CAS-No.: 13932-13-3 EINECS: 237-702-3	Potassium tetrathionate	Skin Irrit. 2; Eye Irrit. 2; STOT 3 H315; H319, H335	

Additional Information: For the wording of the listed risk phrases refer to section 16 of this data sheet.

4. First-aid measures

4.1. Description of first aid measures
General information:
Seek immediate medical advice.
After inhalation:
Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.
In case of unconsciousness place patient stably in side position for transportation.
If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.
After skin contact:
Immediately wash with water and soap and rinse thoroughly.
Seek medical treatment
After eye contact:
Rinse opened eye with plenty of water for several minutes and consult a physician.
After swallowing:
Rinse out mouth. Make victim drink water (maximum of 2 drinking glasses).
Seek medical treatment

4.2. Most important symptoms and effects, both acute and delayed: No further relevant information available.
4.3. Indication of any immediate medical attention and special treatment needed: No further relevant information available.

5. Fire-fighting measures

5.1. Extinguishing media
Suitable extinguishing agents:
Carbon Dioxide (CO_2). Dry chemical powder, or appropriate foam. Fight larger fires with water spray or alcohol resistant foam.
5.2. Special hazards arising from the substance or mixture:
May be combustible at high temperature.
Ambient fire may liberate hazardous vapours.
In case of a fire, the following can be released:
Carbon oxides (CO, CO_2)
Sulphur oxides (SOx),
5.3. Advice for fire fighters:
Protective equipment:
Wear self-contained respiratory protective device.
Additional information:
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.
Contain escaping vapours with water.

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
Avoid formation of dust.
Do not inhale dust.
Ensure adequate ventilation.
Use respiratory protective device against the effects of fumes/dust/aerosol.
6.2. Environmental precautions: No special measures required.
6.3. Methods and materials for containment and cleaning up:
Pick-up mechanically.
Avoid generation of dust.
Ensure adequate ventilation.
Clean up affected area.
6.4. Reference to other sections
See Section 7 for information on safe handling
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7. Handling and storage

7.1. Precautions for safe handling:
Ensure good ventilation/exhaustion at the workplace.
Open and handle receptacle with care.
Avoid contact with skin and eyes.

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Contd. of page 2

Information about fire – and explosion protection: The product is not flammable.

7.2. Conditions for safe storage, including any incompatibilities
Storage:
Requirements to be met by storerooms and receptacles: Keep receptacles tightly sealed.
Store only in the original receptacle.
Containers which are opened must be carefully resealed.
Information about storage in one common storage facility: Away from sources of ignition and heat.
Further information about storage conditions:
Keep container tightly sealed.
Store in dry conditions in well closed respectable.
Recommended storage temperature: +15°C - +25°C
Storage class: 13

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

8. Exposure controls / personal protection

8.1. Control parameters
Ingredients with limit values that require monitoring at the workplace: Not required.

Additional information: The list valid during the making were used as basis.
Additional information about design of technical facilities: No further data; see item 7.

8.2. Exposure controls:
Personal protective equipment:

General protective and hygienic measures:
The usual precautionary measures are to be adhered to when handling chemicals.
Keep away from foodstuffs, beverages and feed.
Wash hands before breaks and at the end of work.
Avoid contact with eyes and skin.
Store protective clothing separately.
Immediately remove all soiled and contaminated clothing.
Respiratory protection: Respiratory protection required when vapours/aerosols are generated. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).
Filter ABEK (EN 14387).



Required when dusts are generated

Protection of hands:



Protective gloves (EN 374)

The glove material has to be impermeable and resist ant to the product/ the substance/ the preparation.
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/the chemical mixture.
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 on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material cannot be calculated in advance and has therefore to be checked prior to the application.
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.
For the permanent contact gloves made of the following materials are suitable:
Nitril rubber, NBR
Recommended thickness of the material: ≥0.11mm
Value for permeation: Level: >480 min.
As protection from splashes gloves made of the following materials are suitable:
Nitril rubber, NBR
Recommended thickness of the material: ≥0.11mm
Value for the permeation: Level ≥480 min.
Eye/face protection: Safety glasses.



Safety glasses (EN 166)

Body protection:

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Use protective suit.
Protective clothing should be selected specifically for the working place, depending on concentration and quantity of the hazardous substances handled.

9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

General Information
Appearance

Form:	Solid
Colour:	White to off-white
Odour:	characteristic
pH value at 20°C:	Not determined
Change in conditions	
Melting point/Melting range:	Not determined
Boiling point/Boiling range:	Not determined
Flash point:	Not applicable
Flammability (solid, gaseous):	Product is not flammable
Decomposition temperature:	Not determined
Self-ignition:	Product is not self-igniting
Danger of explosion:	Product does not present an explosion hazard
Explosion limits:	
Lower:	Not determined
Upper:	Not determined
Vapour pressure:	Not applicable
Density (20°C):	Not applicable
Bulk density at 20°C:	Not determined
Solubility in / Miscibility with	
(water, 20°C):	Soluble
Partition coefficient (n-octanol/water):	Not determined
Viscosity:	
Dynamic:	Not applicable
Kinematic:	Not applicable
Solvent content:	
Organic solvents:	0.0%
VOC (EC)	0.00%

9.2. Other information

Appearance:
Form: Powder
Important information on protection of health and environment, and on safety.
Explosive properties: Product does not present an explosion hazard.
Change in condition
Evaporation rate: Not applicable.

Information with regard to physical hazard classes

Explosives:	Void
Flammable gases:	Void
Aerosols:	Void
Oxidising gases:	Void
Gases under pressure:	Void
Flammable liquids:	Void
Flammable solids:	Void

Self-reactive substances and mixtures: Void

Pyrophoric liquids:	Void
Pyrophoric solids:	Void

Self-heating substances and mixtures: Void
Substances and mixtures, which emit flammable gases in contact with water: Void

Oxidising liquids:	Void

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Oxidising solids: Void
Organic peroxides: Void
Corrosive to metals: Void
Desensitised explosives: Void

10. Stability and reactivity

10.1. Reactivity: No dangerous reactions known.
10.2. Chemical stability
Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
10.3. Possibility of hazardous reactions: No dangerous reactions known.
10.4. Conditions to avoid: No further relevant information available.
10.5. Incompatible materials: No further relevant information available.
10.6. Hazardous decomposition products: In the event of fire: See chapter 5 of this data sheet.

11. Toxicological information

11.1. Information on toxicological effects
Acute toxicity:

LD50/LC50 values relevant for classification
Quantitative data on the toxicological effect of this product is not available.

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.
After inhalation: No irritating effect.
Respiratory or skin sensitization: Based on available data, the classification criteria are not met.
CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)
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 date, the classification criteria are not met.
Specific target organ toxicity - repeated exposure
Liver – Irregularities - Based on Human Evidence

11.2. Information on other hazards:
Endocrine disrupting properties: None of the ingredients is listed.
When used and handled according to specifications the product does not have any harmful effects to our experience and the information provided to us.

12. Ecological Information

12.1. Toxicity
Aquatic toxicity: Quantitative data on the ecological effect of the product are not available.
12.2. Persistence and degradability: Easily biodegradable.
12.3. Behaviour in environmental systems
12.4. Bioaccumulative potential: No further relevant information available.
12.5. Results of PBT and vPvB assessment
The substance does not have endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605. Substance does not meet the criteria for PBT or vPvB in accordance with Annex XIII of Regulation (EC) No. 1907/2006 (REACH) as amended. Does not contain any PMB or vPvB components.
12.6 Endocrine disrupting properties: The product does not contain substances with endocrine disrupting properties.
12.7. Other adverse effects: No further relevant information available.
Additional ecological information:
General notes: Do not allow product to reach ground water, water course or sewage system. Water hazard class 1 (German Regulation) (Assessment by list): slightly hazardous for water**.**

13. Disposal considerations

13.1. Waste treatment methods
Recommendation:
Chemicals must be disposed of in compliance with the respective national regulations. Must not be disposed together with household garbage. Do not allow product to reach sewage system. Contact a licensed professional waste disposal service to dispose of this material. Observe all federal, state, and local environmental regulations.

Uncleaned packaging:

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Recommendation: Disposal must be made according to official regulations. Packagings that may not be cleansed are to be disposed of in the same manner as the product.
Recommended cleaning agents: Water, if necessary, together with cleansing agents.

14. Transport information

14.1. UN-Number
ADR, IMDG, IATA Void

14.2. UN proper shipping name
ADR, IMDG, IATA Void

14.3. Transport hazard class(es)
ADR, IMDG, IATA Void

14.4. Packaging group
ADR, IMDG, IATA Void

14.5. Environmental hazards: Not applicable

14.6. Special precautions for user: Not applicable

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code Not applicable

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

UN "Model Regulation": Void

15. Regulatory information

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

Directive 2012/18/EU
Named dangerous substances - ANNEX I: Substance is not listed.
DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II: Substance is not listed.
REGULATION (EU) 2019/1148
Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3)): Substance is not listed.
Annex II - REPORTABLE EXPLOSIVES PRECURSORS: Substance is not listed.
15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16. Other information

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Genaxxon bioscience GmbH, shall not be held liable for any damage resulting from handling or from contact with the above product.

Relevant phrases

Skin Irrit. 2	H315	Causes skin irritation.
Eye Irrit. 2	H319	Causes serious eye irritation.
STOT 3	H335	May cause respiratory irritation.

Disclaimer
This product is for R&D use only. Not for drug, household or other uses.

Abbreviations and Acronyms:

ACAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
CAS: Chemical Abstracts Service (division of the American Chemical Society)
EINECS: European Inventory of Existing Commercial Chemical Substances
GefStoffV: Gefahrstoffverordnung (Ordinance on Hazardous Substances, Germany)
GHS: Globally Harmonized System of Classification and labeling of Chemicals
IATA: International Air Transport Association
IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)
ICAO: International Civil Aviation Organization
IMDG: International Maritime code for Dangerous Goods
LC50: Lethal concentration, 50 percent

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LD50: Lethal dose, 50 percent
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail).