

SAFETY DATA SHEET

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)

Guldets Buffrad

SECTION 1. Identification of the substance/mixture and of the company

1.1 Product identifier Guldets Buffrad

1.2 Relevant identified uses of the product and uses advised against

Intended use: Professional use. Electronics chemical.

1.3 Details of the supplier of the safety data sheet

Manufacturer: Sunchem AB
Postadress: Box 69
SE - 433 21 Partille
Land: Sverige
Telefon +46-31-447310

E-mail: purchasing@sunco.se

1.4 Telephone emergency number:

In case of emergency, contact toxicological information, emergency tel 112.

For non-emergency poison information, see:

http://www.who.int/gho/phe/chemical_safety/poisons_centres/en/

SECTION 2. Hazards identification

2.1 Classification of the substance or mixture

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

Eye Dam 1, H318
STOT RE 1, H372

2.2 Label elements

Classification according to regulation (EC) No. 1272/2008 (CLP)

Pictogram(s)



Signal word

Danger

Hazard statements

H318 Causes serious eye damage.
H372 Causes damage to organs through prolonged or repeated exposure.

Precautionary statements

P260 Do not breathe dust/fume/gas/mist/vapours/spray.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor.

Contains Aluminium nitrate nonahydrate, Potassium iodide.

2.3 Other hazards

This mixture does not contain any substances that meets the criteria for PBT or vPvB in accordance with Regulation (EC) No. 1907/2006, Annex XIII.

This mixture does not contain substances at $\geq 0,1\%$ with endocrine disrupting properties in accordance with the criteria of the Delegated Regulation (EU) 2017/2100 of the Commission or Regulation (EU) 2018/605 of the Commission.

SECTION 3. Composition/information on ingredients

3.2 Mixtures**Declaration of components according to Regulation (EC) No. 1272/2008**

| Chemical name | CAS No. EC No. | REACH Reg. No. Index No. | Conc. % | Classification |
|-------------------------------|------------------------|----------------------------------|---------|---|
| Aluminium nitrate nonahydrate | 7784-27-2 616-523-8 | - - | 30-70 | Eye Dam 1, H318 |
| Potassium iodide | 7681-11-0 231-659-4 | - - | 10-20 | STOT RE 1; H372 |
| Iodine | 7553-56-2 231-442-4 | 01-2119485285-30 053-001-00-3 | 1-5 | Acute Tox. 4 (Inhalation), H332 Acute Tox. 4 (Dermal), H312 Aquatic Acute 1, H400 |

For full text of the H-statements see section 16 "Other information".

SECTION 4. First aid measures

4.1 Description of first aid measures

General: In the least doubt or if symptoms persist, seek medical attention.

- Inhalation:** Call a poison center or a doctor if you feel unwell. Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor.
- Skin contact:** Wash with plenty of soap and water. Take off immediately all contaminated clothing. Get medical attention if any discomfort continues. Chemical burns must be treated by a physician. Rinse skin with water/shower. Immediately call a POISON CENTER/doctor.
- Eye contact:** Get medical advice/attention if you feel unwell. Immediately flush with plenty of water for up to 15 minutes. Remove any contact lenses and open eyelids widely. If irritation persists: Continue flushing during transport to hospital. Bring these instructions. Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.
- Ingestion:** DO NOT induce vomiting. Get medical attention immediately. Rinse nose, mouth and throat with water. Drink plenty of water. Get medical attention immediately!. Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER/doctor.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms/effects: Causes damage to organs through prolonged or repeated exposure.
Symptoms/effects after skin contact: Prolonged contact may cause slight irritation.
Symptoms/effects after eye contact: Causes serious eye damage. Symptoms/effects after swallowing: Ingestion may cause nausea and vomiting.

4.3 Indication of any immediate medical attention and special treatment needed

Symptomatic treatment. Consult a doctor and show this safety data sheet.

SECTION 5. Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media: Use water fog, alcohol resistant foam, powder, or carbon dioxide.

Unsuitable extinguishing media: Water with a full water jet.

5.2 Special hazards arising from the substance or mixture

Non flammable.

Hazardous decomposition products in case of : Iodine. Nitrogen oxides. Toxic gases/vapours/fumes.

5.3 Advice to firefighters

Do not enter fire area without proper personal protective equipment, including respiratory protection. Exercise caution when fighting any chemical fire. Containers close to fire should be removed immediately or cooled with water. Fight fire remotely due to the risk of explosion.

Protection during firefighting : Wear self-contained breathing apparatus (SCBA) to prevent contact with thermal decomposition products.

SECTION 6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation, especially in confined areas. Avoid contact with skin and eyes. Use personal protective equipment as required. Do not breathe gas/fumes/vapour/spray (appropriate wording to be specified by the manufacturer).

Wear appropriate personal protective equipment - see Section 8.
Keep public away from danger area.

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

6.2 Environmental precautions

Avoid discharges to soil, water or air. Prevent discharges into sewers.

6.3 Methods and material for containment and cleaning up

Dispose of at a licensed waste collection centre.

Take up liquid spill into absorbent material. Post clean with water. Never pour spill back in original packaging for reuse.

Dispose of materials or solid residues at an authorized site.

6.4 Reference to other sections

See Section 8 for personal protection and Section 13 for disposal considerations, respectively.

SECTION 7. Handling and storage

7.1 Precautions for safe handling

See Section 8 for recommendations on the use of personal protective equipment.
Avoid spilling, skin and eye contact.. Use only well-ventilated area. Ensure adequate ventilation.

Hygiene measures:

Do not eat, drink or smoke when using this product. Wash hands, forearms and face thoroughly after handling.
Wash contaminated clothing before reuse.

7.2 Conditions for safe storage, including any incompatibilities

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

7.3 Specific end use(s)

See Section 1.2.

SECTION 8. Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

The national occupational exposure limit values that correspond to Union occupational exposure limit values in accordance with Directive 98/24/EC, including any notations as referred to in Article 2(3) of Commission Decision 2014/113/EU(5);EH40 2020:

| Substances | ppm | mg/m ³ | Interval | Category | Notes |
|------------|-----|-------------------|------------|------------------|-------|
| Iodine | - | - | 8 hours | TWA | |
| Iodine | 0.1 | 1.1 | 15 minutes | Short term value | |

8.2 Exposure control

Assigned personal protection equipment is a guideline. A risk assessment of actual risks may lead to other requirements.

8.2.1 Engineering controls

Work in a well-ventilated area. Mechanical ventilation of local exhaust may be required. Eye wash facilities and emergency shower must be available when handling this product.

8.2.2 Personal protection

Do not eat, drink or smoke when using this product. Wash hands after handling.



8.2.2.1 Eye protection

Wear protective goggles according EN standard 166.

8.2.2.2 Hand protection

Use protective gloves according EN standard 374. Recommended glove barrier materials include nitrile rubber and butyl rubber:

Layer thickness: Neoprene rubber: >0,45 mm. Breakthrough time: >480 minutes.

Layer thickness: Butyl rubber: >0,35 mm. Breakthrough time: >480 minutes.

8.2.2.3 Skin protection

In case of handling large quantities or in the event of spatter, wear protective clothes, i.e. an apron.

8.2.2.4 Respiratory protection

In case of inadequate ventilation, respiratory protection according EN standard 149 and EN 14387 (full-face mask with gas filter type B) or breathing apparatus may be required.

8.2.2.5 Thermal hazard

No thermal hazard.

8.3 Environmental exposure control

See Section 6.2.

SECTION 9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

| | | |
|----------|--|----------------------------------|
| a | Physical state | Liquid |
| b | Colour | Dark brown |
| c | Odour/odour threshold | Characteristic |
| d | Melting point/Freezing point | No data available/not applicable |
| e | Initial boiling point/boiling range | 100°C |
| f | Flammability (solid, gas) | No data available/not applicable |
| g | Lower and upper explosion limit | No data available/not applicable |
| h | Flash point | No data available/not applicable |
| i | Auto-ignition temperature | No data available/not applicable |
| j | Decomposition temperature | No data available/not applicable |
| k | pH | No data available/not applicable |
| l | Kinematic viscosity | No data available/not applicable |
| m | Solubility | Very soluble in water |
| n | Partition coefficient (n-octanol/water) | No data available/not applicable |
| o | Vapour pressure | No data available/not applicable |
| p | Density and/or relative density | 1,2 g/cm ³ |
| q | Relative vapour density | No data available/not applicable |
| r | Particle characteristics | No data available/not applicable |

9.2 Other information

No more specific or information about safety characteristics.

SECTION 10. Stability and reactivity

10.1 Reactivity

No reaction known. Stable under recommended storage and usage conditions.

10.2 Chemical stability

Stable under recommended storage and usage conditions.

10.3 Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4 Conditions to avoid

Stable under recommended storage and usage conditions.

10.5 Incompatible materials

None known.

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 hazard classes as defined in Regulation (EC) No 1272/2008

No toxicological tests have been performed on the product. The product is not classified as acute toxic.

Estimated value of **ATE**:

ATE_{oral}: >2000 mg/kg

ATE_{dermal}: >2000 mg/kg

ATE_{inhalation}: >5 mg/l (ca 16 mg/l)

General toxicological information

| Hazardous components CAS no. | Value Type | Value | Route of exposure | Exposure time | Species | Method |
|---------------------------------|---------------|-------------|----------------------|------------------|---------|--------|
| Aluminium nitrate nona-hydrate | LD50 | 3671 mg/kg | Oral | | Rat | |
| Potassium iodide | LD50 | 4340 mg/kg | Oral | | Rat | |
| Iodine | LD50 | 14000 mg/kg | Oral | | Rat | |
| Iodine | LC50 | >0,8 mg/l | Inhalation | 4h/ vapours | Rat | |

Classification according to GHS (1272/2008/EC, CLP)

| | |
|---|---|
| Acute toxicity: | Not classified |
| Skin corrosion/irritation: | Not classified |
| Serious eye damage/eye irritation: | Causes serious eye damage. |
| Respiratory or skin sensitization: | Not classified |
| Germ cell mutagenicity: | Not classified |
| Carcinogenicity: | Not classified |
| Reproductive toxicity: | Not classified |
| STOT – single exposure: | Not classified |
| STOT – repeated exposure: | Causes damage to organs through prolonged or repeated exposure. |
| Aspiration hazard: | Not classified |

11.2 Information on other hazards

This mixture does not contain substances at $\geq 0,1\%$ with endocrine disrupting properties in accordance with the criteria of the Delegated Regulation (EU) 2017/2100 of the Commission or Regulation (EU) 2018/605 of the Commission.

SECTION 12. Ecological information

12.1 Toxicity

Not classified harmful to the environment.

| Hazardous components CAS no. | Value Type | Value | Route of Exposure | Exposure Time | Species | Method |
|------------------------------|------------|-----------|-------------------|---------------|---------|--------|
| Potassium iodide | LC50 | 896 mg/l | Water | 96 h | Fish | |
| Iodine | LC50 | 0,53 mg/l | Water | 96 h | Fish | |
| Iodine | EC50 | 1,73 mg/l | Water | 48 h | Daphnia | |
| Iodine | IC50 | 48 mg/l | Water | 72 h | Alges | |

12.2 Persistence and degradability

Components are biodegradable

12.3 Bioaccumulative potential

No bioaccumulation

Potassium iodide : BCF: 1.26 Log Pow: 2.49.

Iodine: BCF: 5.37. Log Pow: 2.49.

12.4 Mobility in soil

Components are water soluble and may spread in water system and soil.

12.5 Results of PBT and vPvB assessment

The substance/mixture does not fulfil the criteria to be identified as PBT substance or vPvB substance.

12.6 Endocrine disrupted properties

This mixture does not contain substances at $\geq 0,1\%$ with endocrine disrupting properties in accordance with the criteria of the Delegated Regulation (EU) 2017/2100 of the Commission or Regulation (EU) 2018/605 of the Commission.

12.7 Other adverse effects

No data available.

SECTION 13. Disposal considerations

13.1 Waste treatment methods

Dispose according to Directive 2008/98/EC on waste (Waste Framework Directive) and in compliance with local and national legislation. Do not allow to enter sewers. Transfer to a waste container and send for destruction.

Packaging may still contain hazardous residues and disposal should be undertaken by a licensed waste contractor. Any disposal practice must comply with local and national laws and regulations.

Suggested EWC codes

11 01 99 wastes not otherwise specified.

16 05 07* discarded inorganic chemicals consisting of or containing dangerous substances.

SECTION 14. Transport information

14.1 UN number

| | |
|-----------|---|
| ADR | - |
| RID | - |
| IMDG | - |
| ICAO/IATA | - |

14.2 UN proper shipping name

| | |
|-----------|---|
| ADR | - |
| RID | - |
| IMDG | - |
| ICAO/IATA | - |

14.3 Transport hazard class(es)

| | |
|-----------|---|
| ADR | - |
| RID | - |
| ADN | - |
| IMDG | - |
| ICAO/IATA | - |

14.4 Packaging group

| | |
|-----------|---|
| ADR | - |
| RID | - |
| IMDG | - |
| ICAO/IATA | - |

14.5 Environmental hazards

| | |
|-----------|----|
| ADR | NO |
| RID | NO |
| IMDG | NO |
| ICAO/IATA | NO |

14.6. Special precautions for user

Not applicable

14.7 Maritime transport in bulk according to IMO instruments.

Not applicable

SECTION 15. Regulatory information

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

Regulation (EC) No 1272/2008 (CLP) of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures. Latest update of legal requirements 23/10/2024 of CLP regulation.

Regulation (EC) No 1907/2006 (REACH) of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC. REACH latest update 28/11/2024.

Regulation (EU) 2020/878 of the European Commission, supplement for REACH appendix II.

The national occupational exposure limit values that correspond to Union occupational exposure limit values in accordance with Directive 98/24/EC, including any notations as referred to in Article 2(3) of Commission Decision 2014/113/EU(5); EH40/2005: Workplace exposure limits updates 2020.

15.2 Chemical safety assessment

No Chemical Safety Assessment has been carried out.

SECTION 16. Other information

Version: 4.0

New EU regulations (REACH/CLP) according SDS content/sections/tables and new SDS from raw data.

Explanations to abbreviations in Section 3

H312 Harmful in contact with skin.

H318 Causes serious eye damage.

H332 Harmful if inhaled.

H372 Causes damage to organs through prolonged or repeated exposure.

H400 Very toxic to aquatic life.

Explanations to abbreviations in Section 14

| | |
|------|--|
| ADR | European Agreement Concerning the International Carriage of Dangerous Goods by Road |
| RID | Règlement concernant le transport international ferroviaire de marchandises Dangereuses (Regulations concerning the International carriage of Dangerous goods by rail) |
| IMDG | IMDG code (International Maritime Dangerous Goods Code) |
| ICAO | International Civil Aviation Organization (ICAO, 999 University Street, Montreal, Quebec H3C 5H7, Canada) |
| IATA | International Air Transport Association |

This safety data sheet has been produced and reviewed by Chemgroup Scandinavia AB.