



SAFETY DATA SHEET SANDVIK PERFORMANCE FLUIDS SANDVIK GREASE SANDVIK OG220-H

ACCORDING TO REGULATION (EC) NO. 1907/2006 (REACH) ARTICLE 31, ANNEX 11 AS

ISSUED: 20 Nov 2018

INTERNAL NO: SDS-SANDVIK OG220-H/ENG/METRIC

1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY

1.1: Product identifier

| Product name | SANDVIK GREASE |
|--------------|-----------------|
| Product code | SANDVIK OG220-H |

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

| Identified uses | Grease |
|----------------------|-------------------------------------|
| Uses advised against | No uses advised against identified. |

1.3: Details of the supplier of the safety data sheet

| Supplier name | Sandvik Mining and Construction | |
|---------------|---|--|
| Address | Sverige AB Södra Järngatan 1 Sandviken,Sweden | |
| Email | sds.smrt@sandvik.com | |

1.4: Emergency telephone number

| 1.4. Emergency telephone number | |
|---------------------------------|--|
| Emergency telephone numbers | In case of chemical emergency (spill, leak, fire, exposure or accident) call our service provider UK National Chemical Emergency Centre (NCEC): For Europe and if no country-specific number listed: +44 1865 407 333 For Brazil: +55 11 3197 5891 For US: +1 202 464 2554 For Mexico: +52 55 5004 8763 For Africa: +27 21 300 2732 For Australia: +61 2 8014 4558 For NZ: +64 9 929 1483 For China (mainland): +86 532 8388 9090 For China (outside): +86 512 8090 3042 |
| Hours of operation | 24 hours per day / 7 days per week. |



2: HAZARDS IDENTIFICATION

2.1: Classification of the substance or mixture

| The product has been classified and labelled as hazardous according to regulation (EU) 1272/2008 (CLP). | | |
|---|-------------------|--|
| Classification according to Regulation (EC) No 1272/2008 as amended. | | |
| Environmental Hazards | | |
| Chronic hazards to the aquatic environment | Category 3 | H412: Harmful to aquatic life with long lasting effects. |
| Hazard summary | | |
| Physical Hazards | No data available | |

2.2: Label elements

| Hazard Statement(s) | H412: Harmful to aquatic life with long lasting effects. |
|--------------------------|--|
| Precautionary Statements | |
| Prevention | P273: Avoid release to the environment |

2.3: Other hazards

By handling of mineral oil products and chemical products no particular hazard is known when normal precautions (item 7) and personal protective equipment (item 8) are kept. The product may not be released into the environment without control.

3: COMPOSITION / INFORMATION ON INGREDIENTS

3.1: Mixtures

| General information | |
|---------------------|---|
| Lubricating grease: | Thickener system and additives in synthetic base oil. |

| Chemical name | Identifier | Concentration * | REACH Registration No. | Notes |
|----------------------|-------------------|-----------------|------------------------|-------|
| ZnDTP | EINECS: 224-235-5 | 1,00 - <2,50% | 01-2119493635-27 | |
| Zn compound | EINECS: 234-409-2 | 0,25 - <1,00% | | |
| phenolic antioxidant | EINECS: 204-881-4 | 0,25 - <1,00% | 01-2119565113-46 | |

^{*} All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

Classification

| Chemical name | Identifier | Classification | |
|----------------------|-------------------|----------------|---|
| ZnDTP | EINECS: 224-235-5 | CLP | Eye Dam. 1;H318, Aquatic Chronic 2;H411 |
| Zn compound | EINECS: 234-409-2 | CLP | Skin Irrit. 2;H315, Aquatic Acute 1;H400, Aquatic Chronic 1;H410 |
| phenolic antioxidant | EINECS: 204-881-4 | CLP | Aquatic Acute 1;H400, Aquatic Chronic1;H410 |
| | | • | |

CLP: Regulation No. 1272/2008.

For the wording of the listed risk phrases refer to section 16.

PBT: persistent, bioaccumulative and toxic substance.

vPvB: very persistent and very bioaccumulative substance.



4: FIRST AID MEASURES

| General | Instantly remove any clothing soiled by the product. |
|---------|--|
|---------|--|

4.1: Description of first aid measures

| Inhalation | Supply fresh air; consult doctor in case of symptoms. |
|--------------|---|
| Eye Contact | Promptly wash eyes with plenty of water while lifting the eye lids. |
| Skin Contact | Wash with soap and water. |
| Ingestion | Rinse mouth thoroughly. |

4.2: Most important symptoms and effects, both acute and delayed

May cause skin and eye irritation.

4.3: Indication of any immediate medical attention and special treatment needed

Get medical attention if symptoms occur.

5: FIRE-FIGHTING MEASURES

5.1: Extinguishing media

| Suitable extinguishing media | CO2, fire extinguishing powder or fog like water spraying. Extinguish larger fires with alcohol resistant foam or spray water with suitable surfactant added |
|--------------------------------|--|
| Unsuitable extinguishing media | Water with a full water jet. |

5.2: Special hazards arising from the substance or mixture

During fire, gases hazardous to health may be formed.

5.3: Advice for fire-fighters

| Special fire-fighting procedures | Move container from fire area if it can be done without risk. Dispose of fire debris and contaminated fire fighting water inaccordance with official regulations. Collect contaminated fire fighting water separately. It must not enter drains. |
|--|--|
| Special protective equipment for fire-fighters | Self-contained breathing apparatus and full protective clothing must be worn in case of fire. |

6: ACCIDENTAL RELEASE MEASURES

6.1: Personal precautions, protective equipment and emergency procedures

Not required

6.2: Environmental precautions

Avoid release to the environment. Prevent further leakage or spillage if safe to do so.

6.3: Methods and material for containment and cleaning up

Scrape up spillage or absorb with absorbing material. Dispose of the material collected according to regulations. Stop the flow of material, if this is without risk.



6.4: Reference to other sections

See Section 8 of the SDS for Personal Protective Equipment. See Section 7 for information on safe handling See Section 13 for information on disposal.

7: HANDLING AND STORAGE

7.1: Precautions for safe handling

Provide adequate ventilation. Observe good industrial hygiene practices. Do not eat, drink or smoke when working with the product. Take usual precautions when handling mineral oil products or chemical products.

7.2: Conditions for safe storage, including any incompatibilities

Local regulations concerning handling and storage of waterpolluting products have to be followed.

7.3: Specific end use(s)

| Not applicable. | |
|-----------------|------------------------|
| Storage Class: | 11, Combustible solids |

8: EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control Parameters

Occupational Exposure Limits

None of the components have assigned exposure limits.

8.2: Exposure controls

| | Provide adequate ventilation. Ventilation rates should |
|----------------------------------|--|
| | be matched to conditions. If applicable, use process |
| | enclosures, local exhaust ventilation, or other |
| Appropriate engineering controls | engineering controls to maintain airborne levels |
| | below recommended exposure limits. If exposure |
| | limits have not been established, maintain airborne |
| | levels to an acceptable level. |



Individual protection measures such as personal protective equipment:

| General Information | Wash hands before breaks and after work. Use personal protective equipment as required. Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment. The usual precautionary measures should be adhered to inhandling the chemicals or the mineral oil products. |
|------------------------|--|
| Eye / face protection | Safety glasses (EN 166) recommended during refilling. |
| Skin protection | |
| Hand protection | Material: Nitrile butyl rubber (NBR). Min. Breakthrough time: >= 480 min Recommended thickness of the material: >= 0,38 mm Avoid long-term and repeated skin contact. Suitable gloves can be recommended by the glove supplier. Use skin protection cream for preventive skin protection. Protective gloves, where permitted in acc. to safety directions. The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed. |
| Other | Do not carry cleaning cloths impregnated with the product in trouser pockets. Wear suitable protective clothing. |
| Respiratory protection | Not relevant, due to the form of the product. |
| Thermal hazards | Not known |
| Hygiene measures | Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing to remove contaminants. Discard contaminated footwear that cannot be cleaned. |

Environmental Controls:

No data available



9: PHYSICAL AND CHEMICAL PROPERTIES

9.1: Information on basic physical and chemical properties

| Appearance | |
|---|---------------------------------------|
| Physical state | Solid |
| Form | Paste |
| Colour | White |
| Odor | Characteristic |
| Odor Threshold | Not applicable for mixtures |
| рН | Not applicable |
| Melting Point | Not applicable for mixtures |
| Boiling Point | Value not relevant for classification |
| Flash point | Not applicable |
| Evaporation Rate | Not applicable for mixtures |
| Flammability (solid, gas) | Value not relevant for classification |
| Flammability Limit - Upper (%) | Not applicable for mixtures |
| Flammability Limit - Lower (%) | Not applicable for mixtures |
| Vapour pressure | Not applicable for mixtures |
| Vapour density (air=1) | Not applicable for mixtures |
| Density | 0,90 g/ml (25,00 °C) |
| Solubility(ies) | |
| Solubility in water | Insoluble in water |
| Solubility (other) | No data available |
| Partition coefficient (n-octanol/water) | Not applicable for mixtures |
| Autoignition Temperature | Value not relevant for classification |
| Decomposition Temperature | Value not relevant for classification |
| NLGI | 2 |
| Explosive properties | Value not relevant for classification |
| Oxidizing properties | Value not relevant for classification |

9.2: Other information

No data available

10: STABILITY AND REACTIVITY

10.1: Reactivity

Stable under normal use conditions

10.2: Chemical Stability

Stable under normal use conditions

10.3: Possibility of hazardous reactions

Stable under normal use conditions

10.4: Conditions to avoid

Stable under normal use conditions



10.5: Incompatible Materials

Strong oxidizing substances. Strong acids. Strong bases

10.6: Hazardous Decomposition Products

Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.

11: TOXICOLOGICAL INFORMATION

11.1: Information on toxicological effects

| i i i i i i i i i i i i i i i i i i i | |
|---------------------------------------|--|
| Acute toxicity | |
| Oral | |
| Product | Not classified for acute toxicity based on available data. |
| Specified substance(s) | |
| ZnDTP | LD 50 (Rat): 4.358 mg/kg |
| Phenolic Antioxidant | LD 50 (Rat): 2.930 mg/kg (OECD 401) |
| Dermal | · |
| Product | Not classified for acute toxicity based on available data. |
| Specified substance(s) | |
| Phenolic Antioxidant | LD 50 (Rat): > 5.000 mg/kg (OECD 402) |
| Inhalation | |
| Product | Not classified for acute toxicity based on available data. |

| Skin Corrosion / Irritation | |
|-----------------------------|---|
| Product | Based on available data, the classification criteria are not met. |
| Specified substance(s) | |
| ZnDTP | (Rabbit): None |

| Serious Eye Damage / Eye Irritation | |
|-------------------------------------|---|
| Product | Based on available data, the classification criteria are not met. |
| Specified substance(s) | |
| ZnDTP | (Rabbit): Slightly irritating |

| Respiratory or Skin Sensitization | |
|-----------------------------------|--|
| Product | Skin sensitizer: Based on available data, the classification criteria are not met. Respiratory sensitizer: Based on available data, the classification criteria are not met. |
| Specified substance(s) | |
| Phenolic Antioxidant | No sensitizing effect (guinea pig); OECD 406 |

| Germ Cell Mutagenicity | |
|------------------------|---|
| Product | Based on available data, the classification criteria are not met. |



| Carcinogenicity | |
|--|---|
| Product | Based on available data, the classification criteria are not met. |
| | |
| Reproductive Toxicity | |
| Product | Based on available data, the classification criteria are not met. |
| | |
| Specific Target Organ Toxicity - Single Exposu | re |
| Product | Based on available data, the classification criteria are not met. |
| | |
| Specific Target Organ Toxicity - Repeated Expe | osure |
| Product | Based on available data, the classification criteria are not met. |
| | |
| Aspiration Hazard | |
| Product | Based on available data, the classification criteria are not met. |
| | |
| Other Adverse Effects | |
| No data available | |

12: ECOLOGICAL INFORMATION

12.1: Toxicity

| Acute toxicity | |
|------------------------|---|
| Product | Based on available data, the classification criteria are not met. |
| Fish | |
| Specified Substance(s) | |
| ZnDTP | LC 50 (Fish, 96 h): 1,1 - 10 mg/l |
| Phenolic Antioxidant | LC 50 (Fish, 96 h): > 0,57 mg/l (OECD 203) |
| Aquatic Invertebrates | |
| Specified Substance(s) | |
| ZnDTP | EC 50 (Water Flea, 48 h): 1,1 - 10 mg/l |
| Phenolic Antioxidant | EC 50 (Water Flea, 48 h): > 0,17 mg/l |

| Chronic Toxicity | |
|------------------------|--|
| Product | Based on available data, the classification criteria are met |
| Aquatic Invertebrates | |
| Specified Substance(s) | |
| Phenolic Antioxidant | NOEC (Water Flea, 21 d): > 0,39 mg/l |



| Toxicity to Aquatic Plants | |
|----------------------------|---------------------------------|
| Specified Substance(s) | |
| ZnDTP | EC 50 (Alga, 72 h): > 240 mg/l |
| Phenolic Antioxidant | EC 50 (Alga, 72 h): > 0,42 mg/l |

12.2: Persistence and Degradability

| Biodegradation | |
|------------------------|-----------------------------|
| Product | Not applicable for mixtures |
| Specified Substance(s) | |
| ZnDTP | 5 % (28 d, OECD 301B) |
| Phenolic Antioxidant | 30 % (OECD 302C) |

12.3: Bioaccumulative Potential

| Product | Not applicable for mixtures |
|------------------------|--------------------------------|
| Specified Substance(s) | |
| Phenolic Antioxidant | May be accumulated in organism |

12.4: Mobility in Soil

| Product | Not applicable for mixtures |
|---------|-----------------------------|
|---------|-----------------------------|

12.5: Results of PBT and vPvB Assessment

The product does not contain any substances fulfilling the PBT/vPvB criteria

12.6: Other Adverse Effects

Harmful to aquatic life with long lasting effects

13: DISPOSAL CONSIDERATIONS

13.1: Waste treatment methods

| General information | Dispose in accordance with all applicable regulations. |
|----------------------|---|
| Disposal methods | Discharge, treatment, or disposal may be subject to national, state, or local laws. |
| European Waste Codes | 12 01 12*: spent waxes and fats |

14: TRANSPORT INFORMATION

14.1: UN number

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



14.2: UN proper shipping name

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

14.3: Transport hazard class(es)

ADR/RID

| Class: | Non-dangerous goods. |
|--------------------------|----------------------|
| Label(s): | - |
| Hazard No. (ADR): | - |
| Tunnel restriction code: | - |

ADN

| Class: | Non-dangerous goods. |
|-----------|----------------------|
| Label(s): | - |

IMDG

| Class: | Non-dangerous goods. |
|-----------|----------------------|
| Label(s): | - |
| EMS No: | - |

IATA

| Class: | Non-dangerous goods. |
|-----------|----------------------|
| Label(s): | - |

14.4: Packing group

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

14.5: Environmental hazard(s)

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

14.6: Special precaution(s) for user

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

14.7: Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:



15: REGULATORY INFORMATION

| 15.1: Safety, health and environmental regulations / legislation specific for the substance or mixture | |
|--|------|
| EU Regulations | |
| Regulation (EC) No. 2037/2000 Substances that deplete the ozone layer | None |
| Regulation (EC) No. 850/2004 on persistent organic pollutants | None |

15.2: Chemical Safety Assessment

No chemical safety assessment has been carried out

16: OTHER INFORMATION

| Wording of the H-statements in section 2 and 3 | H315: Causes skin irritation. H318: Causes serious eye damage. H400: Very toxic to aquatic life. H410: Very toxic to aquatic life with long lasting effects. H411: Toxic to aquatic life with long lasting effects. H412: Harmful to aquatic life with long lasting effects. |
|--|--|
|--|--|

| Other Information | The classification is in line with current EC lists. It is expanded, however, by information from technical literature and by information furnished by supplier companies. The classification results from the Conventional Method mentioned in regulation EU 1272/2008 (CLP). |
|-------------------|---|
| Revision Date | |
| Disclaimer: | <u>'</u> |

The data contained in this safety data sheet are based on our current knowledge and experience and are given to the best of our knowledge and belief. It characterizes the product only with regard to safety requirements for handling, transport and disposal. The data do not describe the product's properties (tech. product specification). Neither should any agreed property nor the suitability of the product for any specific technical application be deduced from the data contained in this safety data sheet. Modifications on this document are not allowed. The data are not transferable to other products. In the case of mixing the product with other products or in the case of processing, the data in this safety data sheet are not necessarily valid for the new-made material. It is the responsibility of the recipient of the product to observe federal, state and local law. Please contact us to obtain up-to-date safety data sheets. This document was issued electronically and has no signature.

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