SAFETY DATA SHEET

according to UN-GHS (rev. 7)

Vasco 5000



Section 1. Identification

Product identifier : Vasco 5000 Article No. : 02850-04

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

Identified uses

Industrial use only. Metal working fluids

Uses advised against

Consumer use.

Manufacturer : BLASER SWISSLUBE AG

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Switzerland

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e-mail address of person

responsible for this SDS

: reach@blaser.com

Emergency telephone number (with hours of

operation)

: 000 800 100 7479 (24h/7d)

Section 2. Hazard identification

Classification of the substance or mixture SKIN CORROSION/IRRITATION - Category 2

SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A

SKIN SENSITIZATION - Category 1

AQUATIC HAZARD (LONG-TERM) - Category 3

GHS label elements

Hazard pictograms



Signal word : Warning

Hazard statements : H315 - Causes skin irritation.

H317 - May cause an allergic skin reaction.

H319 - Causes serious eye irritation.

H412 - Harmful to aquatic life with long lasting effects.

Precautionary statements

General : Not applicable.

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Section 2. Hazard identification

Prevention P280 - Wear protective gloves. Wear eye or face protection.

P273 - Avoid release to the environment.

P261 - Avoid breathing vapor.

P264 + P265 - Wash hands thoroughly after handling. Do not touch eyes. P272 - Contaminated work clothing should not be allowed out of the workplace.

: P302 + P352 - IF ON SKIN: Wash with plenty of water. Response

P333 + P317 - If skin irritation or rash occurs: Get medical help.

P332 + P317 - If skin irritation occurs: Get medical help.

P362 + P364 - Take off contaminated clothing and wash it before reuse.

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing.

P337 + P317 - If eye irritation persists: Get medical help.

Storage : Not applicable.

: P501 - Dispose of contents and container in accordance with all local, regional, **Disposal**

national and international regulations.

Other hazards which do not : None known.

result in classification

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

| Ingredient name | % | Identifiers |
|--|-----------|---------------------------------|
| Castor oil, ethoxylated, dioleate | ≥25 - ≤30 | CAS: 110531-96-9 |
| 2-piperidinoethanol | ≤3.5 | CAS: 3040-44-6 EC: 221-244-6 |
| zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate) | ≤2.2 | CAS: 4259-15-8 EC: 224-235-5 |
| (Z)-N-methyl-N-(1-oxo-9-octadecenyl)glycine | <1 | CAS: 110-25-8 EC: 203-749-3 |
| pyridine-2-thiol 1-oxide, sodium salt | ≤0.1 | CAS: 3811-73-2 EC: 223-296-5 |

Additional information:

Neutralisation product: Equilibrium of Ionic Pairs according to REACH Annex V, 4.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact

: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.

Inhalation

: Avoid breathing vapor or mist. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

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Section 4. First aid measures

Skin contact

Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion

: Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : Causes serious eye irritation.

Inhalation : No known significant effects or critical hazards.

Skin contact Causes skin irritation. May cause an allergic skin reaction.

Ingestion : No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact : Adverse symptoms may include the following:

> pain or irritation watering redness

Inhalation : No specific data.

Skin contact Adverse symptoms may include the following:

> irritation redness

Ingestion : No specific data.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : Treat symptomatically. Contact poison treatment specialist immediately if large

quantities have been ingested or inhaled.

Specific treatments : No specific treatment.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. It

may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear

gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing

media

: Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing

media

: None known.

Specific hazards arising from the chemical

: In a fire or if heated, a pressure increase will occur and the container may burst. This material is harmful to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

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Section 5. Fire-fighting measures

Hazardous thermal decomposition products Decomposition products may include the following materials: carbon dioxide carbon monoxide sulfur oxides phosphorus oxides

Special protective actions for fire-fighters

: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders: If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities.

Methods and materials for containment and cleaning up

Small spill

: Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill

Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Contain and collect spillage with noncombustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations.

Section 7. Handling and storage

Precautions for safe handling

Protective measures

: Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. Avoid release to the environment. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

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Section 7. Handling and storage

Conditions for safe storage, including any incompatibilities

Store between the following temperatures: -20 to 40°C (-4 to 104°F). Shelf life: 18 months. Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

None.

Biological exposure indices

No exposure indices known.

Appropriate engineering controls

Environmental exposure controls

- : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.
- : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures

: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection

: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

Skin protection

Hand protection

: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated. Wear suitable gloves tested to EN374. Nitrile gloves. thickness 0.3 mm (minimum).

Body protection

: Personal protective equipment for the body should be selected based on the task being performed and the risks involved before handling this product.

Other skin protection

: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved before handling this product.

Respiratory protection

: A respirator is not needed under normal and intended conditions of product use. If workers are exposed to concentrations above the exposure limit, they must use appropriate, certified respirators.

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Section 9. Physical and chemical properties and safety characteristics

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

Appearance

Physical state : Liquid. Color : Brown.

Odor Characteristic. **Odor threshold** : Not available.

pН : 8.7 to 9.4 [Conc. (% w/w): 5%]

Melting point/freezing point : Not available. **Pour point** : -30°C (-22°F) : Not available. **Boiling point or initial**

boiling point and boiling range

: Open cup: >150°C (>302°F) Flash point

: Not available. **Flammability** Lower and upper explosion : Not available.

limit/flammability limit

: Not available. Vapor pressure Relative vapor density : Not available. **Relative density** : Not available.

Density 0.951 g/cm³ [20°C (68°F)]

Solubility in water : Not available. Partition coefficient: n-: Not applicable.

octanol/water

Auto-ignition temperature

: Not available. **Decomposition temperature** : Not available.

Viscosity Dynamic (room temperature): Not available.

> Kinematic (room temperature): Not available. Kinematic (40°C (104°F)): 81.3 mm²/s (81.3 cSt)

Particle characteristics

Median particle size : Not applicable.

Section 10. Stability and reactivity

: No specific test data related to reactivity available for this product or its ingredients. Reactivity

Chemical stability : Shelf life: 18 months.

Possibility of hazardous reactions

: Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid : No specific data.

Incompatible materials : No specific data.

Hazardous decomposition

products

: Under normal conditions of storage and use, hazardous decomposition products

should not be produced.

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Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

| Product/ingredient name | Result | Species | Dose | Exposure |
|--|-------------|--------------|-------------|----------|
| Castor oil, ethoxylated, dioleate | LD50 Dermal | Rat | >2000 mg/kg | - |
| | LD50 Oral | Rat | >2000 mg/kg | - |
| 2-piperidinoethanol | LD50 Oral | Rat | >1000 mg/kg | - |
| zinc bis[O,O-bis (2-ethylhexyl)] bis (dithiophosphate) | LD50 Dermal | Rabbit | >5 g/kg | - |
| | LD50 Oral | Rat | 3.1 g/kg | - |
| (Z)-N-methyl-N-(1-oxo- 9-octadecenyl)glycine | LD50 Oral | Rat | >5000 mg/kg | - |
| pyridine-2-thiol 1-oxide, sodium salt | LD50 Dermal | Rabbit | 1800 mg/kg | - |
| | LD50 Oral | Rat - Female | 1208 mg/kg | - |

Irritation/Corrosion

Not available.

Conclusion/Summary

Skin : pH value - Used for classification

Eyes : pH value - Used for classification

Respiratory or skin sensitization

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

| Product/ingredient name | , | Route of exposure | Target organs |
|---------------------------------------|------------|-------------------|----------------|
| pyridine-2-thiol 1-oxide, sodium salt | Category 1 | - | nervous system |

Aspiration hazard

Not available.

Information on the likely

routes of exposure

: Not available.

Potential acute health effects

Eye contact : Causes serious eye irritation.

Inhalation : No known significant effects or critical hazards.

Skin contact: Causes skin irritation. May cause an allergic skin reaction.

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Section 11. Toxicological information

Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact: Adverse symptoms may include the following:

pain or irritation

watering redness

Inhalation : No specific data.

Skin contact: Adverse symptoms may include the following:

irritation redness

Ingestion : No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate : Not available.

effects

Potential delayed effects : Not available.

Long term exposure

Potential immediate : Not available.

effects

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

General: Once sensitized, a severe allergic reaction may occur when subsequently exposed

to very low levels.

Carcinogenicity : No known significant effects or critical hazards.
 Mutagenicity : No known significant effects or critical hazards.
 Reproductive toxicity : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

| Product/ingredient name | Oral (mg/ kg) | Dermal (mg/kg) | Inhalation (gases) (ppm) | Inhalation (vapors) (mg/l) | Inhalation (dusts and mists) (mg/l) |
|--|------------------|-------------------|--------------------------------|----------------------------------|--|
| Vasco 5000 | >5000 | >5000 | N/A | N/A | N/A |
| Castor oil, ethoxylated, dioleate | 2500 | 2500 | N/A | N/A | N/A |
| 2-piperidinoethanol | 500 | 1100 | N/A | N/A | N/A |
| zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate) | 3100 | N/A | N/A | N/A | N/A |
| (Z)-N-methyl-N-(1-oxo-9-octadecenyl)glycine | N/A | N/A | N/A | N/A | 1.5 |
| pyridine-2-thiol 1-oxide, sodium salt | 500 | 790 | N/A | N/A | 0.5 |

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Section 12. Ecological information

Toxicity

| Product/ingredient name | Result | Species | Exposure |
|---|---|-----------------------------|---------------------------------|
| 2-piperidinoethanol | Acute EC50 1.56 mg/l Acute LC50 68.1 mg/l Chronic EC10 4.3 mg/l | Aquatic plants Fish Daphnia | 72 hours 96 hours 21 days |
| (Z)-N-methyl-N-(1-oxo- 9-octadecenyl)glycine | LC50 1 to 10 mg/l | Fish | 96 hours |
| pyridine-2-thiol 1-oxide, sodium salt | EC50 0.0012 mg/l | Algae | 72 hours |
| Socialii Sait | EC50 0.0088 mg/l | Daphnia | 48 hours |

Persistence and degradability

| Product/ingredient name | Aquatic half-life | Photolysis | Biodegradability |
|--|-------------------|------------|--------------------|
| 2-piperidinoethanol (Z)-N-methyl-N-(1-oxo- 9-octadecenyl)glycine | | / / / | Readily Readily |

Bioaccumulative potential

| Product/ingredient name | LogPow | BCF | Potential |
|--|------------|-----|-----------|
| zinc bis[O,O-bis (2-ethylhexyl)] bis (dithiophosphate) | 3.59 | - | Low |
| (Z)-N-methyl-N-(1-oxo- 9-octadecenyl)glycine | 3.5 to 4.2 | - | Low |

Mobility in soil

Soil/water partition coefficient (Koc)

: Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods

The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

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Section 14. Transport information

| | UN | IMDG | IATA |
|----------------------------|----------------|----------------|----------------|
| UN number | Not regulated. | Not regulated. | Not regulated. |
| UN proper shipping name | - | - | - |
| Transport hazard class(es) | - | - | - |
| Packing group | - | - | - |
| Environmental hazards | No. | No. | No. |

Special precautions for user : Transport within user's premises: always transport in closed containers that are

upright and secure. Ensure that persons transporting the product know what to do in

the event of an accident or spillage.

Transport in bulk according : Not available.

to IMO instruments

Section 15. Regulatory information

15.1 International regulations

Stockholm Convention on Persistent Organic Pollutants

Not listed.

15.2 Other regulations

Chemical Safety : No Chemical Safety Assessment has been carried out. **Assessment**

Section 16. Other information

History

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Prepared by : Product Stewardship Blaser Swisslube AG

Key to abbreviations : ATE = Acute Toxicity Estimate BCF = Bioconcentration Factor

EC50 = Half maximal effective concentration

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

IATA = International Air Transport Association IMDG = International Maritime Dangerous Goods

LC50 = Median lethal concentration

LD50 = Median lethal dose

LogPow = logarithm of the octanol/water partition coefficient

MARPOL = International Convention for the Prevention of Pollution From Ships,

1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)

N/A = Not available UN = United Nations

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Section 16. Other information

Procedure used to derive the classification

| Classification | Justification |
|--|--------------------|
| SKIN CORROSION/IRRITATION - Category 2 | Expert judgment |
| SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A | Expert judgment |
| SKIN SENSITIZATION - Category 1 | Calculation method |
| AQUATIC HAZARD (LONG-TERM) - Category 3 | Calculation method |

References : Not available.

▼ Indicates information that has changed from previously issued version.

Other EU regulations:

REACH:

Herewith, we confirm that all our products fulfill all the requirements of REACH regulation. All of the raw materials used in our products are either REACH registered or exempt from registration.

ROHS:

BLASER Swisslube products are fully compliant with Annex II of DIRECTIVE 2015/863/EU (RoHS 3) and do not contain the following substances above their respective limitations:

Polybrominated biphenyls (PBB), Polybrominated diphenyl ethers (PBDE), Bis(2-ethylhexyl) phthalate (DEHP), Butyl benzyl phthalate (BBP), Dibutyl phthalate (DBP), Diisobutyl phthalate (DIBP), chromium Cre+-compounds, Heavy metals (Lead or it's compounds, cadmium or it's compounds, mercury or it's compounds).

SVHC:

Herewith we confirm that, with the exceptions of Additive A38 (art.-no. 29182-02), our cutting and grinding fluids do not contain any Substances of Very High Concern (SVHC) above the regulatory cut-off limit of 0.1%.

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

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