

SAFETY DATA SHEET

Vasco 5000

Section 1. Identification of the substance/mixture and of the company/undertaking

GHS product identifier : Vasco 5000

Product code : 02850-53

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
Winterseistrasse 22
CH-3415 Hasle-Rüegsau
Switzerland
Tel: +41 (0)34 460 01 01
E-Mail: contact@blaser.com

Supplier's details : Best Lube Co. Ltd.
69 Soi Ratchadapisek 36, Ratchadapisek Road, Chankasem, Jatujak
10900 Bangkok
Thailand
Tel: +66 2 939 10178
E-Mail: ch.nattavadee@bestlube.co.th

e-mail address of person responsible for this SDS : reach@blaser.com

Emergency telephone number (with hours of operation) : 001 800 120 666 751 (7 วัน/24 ชม)

Section 2. Hazards identification

Classification of the substance or mixture : ACUTE TOXICITY (oral) - Category 5
SKIN CORROSION/IRRITATION - Category 3
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A

GHS label elements

Hazard pictograms :



Signal word : Warning

Hazard statements : H303 - May be harmful if swallowed.
H316 - Causes mild skin irritation.
H319 - Causes serious eye irritation.

Precautionary statements

Prevention : P280 - Wear eye or face protection.
P264 - Wash thoroughly after handling.

Section 2. Hazards identification

Response : P301 + P312 - IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell.
 P332 + P313 - If skin irritation occurs: Get medical advice or attention.
 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 + P313 - If eye irritation persists: Get medical advice or attention.

Storage : Not applicable.

Disposal : Not applicable.

Other hazards which do not result in classification : None known.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Other means of identification : Not available.

Ingredient name	%	CAS number
Castor oil, ethoxylated, dioleate	≥30 - ≤40	CAS: 61791-12-6
2-Butenedioic acid (2Z)-, dibutyl ester, polymer with 1-hexadecene and 1-tetradecene	≥10 - ≤15	CAS: 128218-63-3
2,2'-(cyclohexylimino)bisethanol	<10	CAS: 4500-29-2
zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate)	<2.5	CAS: 4259-15-8
2,2'-(methylimino)diethanol	≤3	CAS: 105-59-9
(Z)-N-methyl-N-(1-oxo-9-octadecenyl)glycine	<1	CAS: 110-25-8
pyridine-2-thiol 1-oxide, sodium salt	≤0.1	CAS: 3811-73-2
3(2H)-Isothiazolone, 2-methyl-	<0.1	CAS: 2682-20-4
2-n-butyl-benzo[d]isothiazol-3-one	<0.1	CAS: 4299-07-4

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. Continue to rinse for at least 10 minutes. Check for and remove any contact lenses. 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. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours. Remove victim to fresh air and keep at rest in a position comfortable

Section 4. First aid measures

- for breathing.
- Skin contact** : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention if adverse health effects persist or are severe. 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. If necessary, call a poison center or physician. 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 mild skin irritation.
- Ingestion** : May be harmful if swallowed.

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** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- 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.

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.

Section 5. Fire-fighting measures

- Hazardous thermal decomposition products** : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
nitrogen oxides
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 mode.

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).

Methods and materials for containment and cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. Absorb with an inert 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 non-combustible, 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). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. 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.

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: (minimum) 24 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 : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Environmental exposure controls : 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. 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.

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.
pH	: 8.7 to 9.4 [Conc. (% w/w): 5%]
Melting point/freezing point	: Not available.
Pour point	: <-20°C (<-4°F)
Boiling point or initial boiling point and boiling range	: Not available.
Flash point	: Open cup: 205°C (401°F)
Burning rate	: Not applicable.
Evaporation rate	: Not available.
Flammability	: Not available.
Lower and upper explosion limit/flammability limit	: Not available.
Vapor pressure	: Not available.
Relative vapor density	: Not available.
Relative density	: Not available.
Density	: 0.954 g/cm³ [20°C (68°F)]
Solubility in water	: Not available.
Partition coefficient: n-octanol/water	: Not applicable.
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)): 104.1 mm²/s (104.1 cSt)

Particle characteristics

Median particle size	: Not applicable.
-----------------------------	-------------------

Section 10. Stability and reactivity

Reactivity	: No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	: Shelf life: (minimum) 24 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.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name

Castor oil, ethoxylated, dioleate

-

2-Butenedioic acid (2Z)-, dibutyl ester, polymer with 1-hexadecene and 1-tetradecene

2,2'-(cyclohexylimino)bisethanol

zinc bis[O,O-bis(2-ethylhexyl)] bis (dithiophosphate)

-

2,2'-(methylimino)diethanol

-

(Z)-N-methyl-N-(1-oxo-9-octadecenyl)glycine

pyridine-2-thiol 1-oxide, sodium salt

-

3(2H)-Isothiazolone, 2-methyl-

-

-

2-n-butyl-benzo[d]isothiazol-3-one

-

Result

Rat - Oral - LD50

>2000 mg/kg

Rat - Dermal - LD50

>2000 mg/kg

Rat - Oral - LD50

>2000 mg/kg

Rat - Oral - LD50

>2000 mg/kg

Rabbit - Dermal - LD50

>5 g/kg

Toxic effects: Behavioral - Somnolence (general depressed activity) Skin After topical exposure - Primary irritation

Rat - Oral - LD50

3.1 g/kg

Toxic effects: Behavioral - Somnolence (general depressed activity) Behavioral - Food intake (animal) Gastrointestinal - Hypermotility, diarrhea

Rat - Oral - LD50

4780 mg/kg

Rabbit - Dermal - LD50

>2000 mg/kg

Rat - Oral - LD50

>5000 mg/kg

Rabbit - Dermal - LD50

1800 mg/kg

Rat - Female - Oral - LD50

1208 mg/kg

Rat - Dermal - LD50

242 mg/kg

Rat - Oral - LD50

120 mg/kg

Rat - Inhalation - LC50 Vapor

0.11 mg/l [4 hours]

Rat - Dermal - LD50

>2000 mg/kg

Rat - Oral - LD50

4267 to 4732 mg/kg

Conclusion/Summary [Product] : Not available.

Skin corrosion/irritation

Not available.

Conclusion/Summary [Product] : pH value - Used for classification

Serious eye damage/eye irritation

Not available.

Conclusion/Summary [Product] : Not available.

Respiratory corrosion/irritation

Section 11. Toxicological information

Not available.

Conclusion/Summary [Product] : Not available.

Respiratory or skin sensitization

Not available.

Skin

Conclusion/Summary [Product] : Not available.

Respiratory

Conclusion/Summary [Product] : Not available.

Germ cell mutagenicity

Not available.

Conclusion/Summary [Product] : Not available.

Carcinogenicity

Not available.

Conclusion/Summary [Product] : Not available.

Reproductive toxicity

Not available.

Conclusion/Summary [Product] : Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Product/ingredient name

2,2'-(cyclohexylimino)bisethanol

pyridine-2-thiol 1-oxide, sodium salt

Result

SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (gastrointestinal tract) - Category 2

SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (nervous system) - Category 1

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 mild skin irritation.

Ingestion : May be harmful if swallowed.

Section 11. Toxicological information

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 effects** : Not available.
- Potential delayed effects** : Not available.

Long term exposure

- Potential immediate effects** : Not available.
- Potential delayed effects** : Not available.

Potential chronic health effects

Not available.

Conclusion/Summary [Product] : Not available.

- General** : No known significant effects or critical hazards.
- 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	3542.4	>5000	N/A	N/A	N/A
Castor oil, ethoxylated, dioleate	2500	2500	N/A	N/A	N/A
2-Butenedioic acid (2Z)-, dibutyl ester, polymer with 1-hexadecene and 1-tetradecene	2500	N/A	N/A	N/A	N/A
2,2'-(cyclohexylimino)bisethanol	500	N/A	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
3(2H)-Isothiazolone, 2-methyl-	120	242	N/A	0.11	N/A

Section 12. Ecological information

Toxicity

Product/ingredient name	Result
2-Butenedioic acid (2Z)-, dibutyl ester, polymer with 1-hexadecene and 1-tetradecene	EC50 Fish >100 mg/l [96 hours]
2,2'-(cyclohexylimino)bisethanol	EC50 Fish >100 mg/l [96 hours]
(Z)-N-methyl-N-(1-oxo-9-octadecenyl)glycine	LC50 Fish 1 to 10 mg/l [96 hours]
pyridine-2-thiol 1-oxide, sodium salt	EC50 Daphnia 0.0088 mg/l [48 hours]
-	EC50 Algae 0.0012 mg/l [72 hours]
3(2H)-Isothiazolone, 2-methyl-	EC50 OECD 203 Fish 0.07 mg/l [96 hours]
2-n-butyl-benzo[d]isothiazol-3-one	EC50 Daphnia 0.093 mg/l [48 hours]
-	EC50 Algae 0.45 mg/l [72 hours]
-	LC50 Fish 0.15 mg/l [96 hours]

Conclusion/Summary [Product] : Not available.

Persistence and degradability

Not available.

Conclusion/Summary [Product] : Not available.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
(Z)-N-methyl-N-(1-oxo-9-octadecenyl)glycine	-	85%; <28 day(s)	Readily

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
Zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate)	3.59	-	Low
2,2'-(methylimino)diethanol	-1.08	-	Low
(Z)-N-methyl-N-(1-oxo-9-octadecenyl)glycine	3.5 to 4.2	-	Low

Mobility in soil

Soil/Water partition coefficient : Not available.

Section 12. Ecological information

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

	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 to IMO instruments : Not available.

Section 15. Regulatory information

Harmful Chemicals List : Listed

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

List name	Ingredient name	Status
 Schedule III	Methyldiethanolamine	Listed

Montreal Protocol

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

Section 15. Regulatory information

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Inventory list

Thailand : Not determined.

Section 16. Other information

History

Date of printing	: 2026.02.26
Date of issue/Date of revision	: 2026.02.26
Date of previous issue	: 2025.11.19
Version	: 1.04
Prepared by	: Product Stewardship Blaser Swissslube 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 IBC = Intermediate Bulk Container 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 SGG = Segregation Group UN = United Nations

Procedure used to derive the classification

Classification	Justification

IP346:

The contained refined mineral oils are exempt of labelling. The content of polycyclic aromatic hydrocarbons (PCA) according to IP346 is < 3% (DMSO-extract).

ACUTE TOXICITY (oral) - Category 5
SKIN CORROSION/IRRITATION - Category 3
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A

Calculation method
Expert judgment
Expert judgment

📌 Indicates information that has changed from previously issued version.

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.