SAFETY DATA SHEET

according to Hazardous Products Regulations (HPR)



Blasorun 5

Section 1. Identification

Product identifier : Blasorun 5 Article No. : 29185-02

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

Identified uses

Industrial use only. Metal working fluids Cleaner.

Uses advised against

Consumer use.

Manufactured/supplied : BLASER SWISSLUBE AG

> Winterseistrasse 22 CH-3415 Hasle-Rüegsau

Switzerland

Tel:+41 (0)34 460 01 01 Mail: contact@blaser.com

Blaser Swisslube Inc. 31 Hatfield Lane Goshen, NY 10924 Tel:+1 845 294 32 00

Mail: mailboxusa@blaser.com

e-mail address of person responsible for this SDS

: reach@blaser.com

Emergency telephone number (with hours of

operation)

: +1 800 579 7421 (toll free)

Section 2. Hazard identification

Classification of the substance or mixture : SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A

GHS label elements

Hazard pictograms



Signal word : Warning

: H315 - Causes skin irritation. **Hazard statements**

H319 - Causes serious eye irritation.

Precautionary statements

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

P264 - Wash thoroughly after handling.

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Section 2. Hazard identification

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

> P332 + P313 - If skin irritation occurs: Get medical advice or attention. 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 + P313 - If eye irritation persists: Get medical advice or attention.

: Not applicable. **Storage Disposal** : Not applicable.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Ingredient name	% (w/w)	Identifiers
2-aminoethanol	≥5 - <10	CAS: 141-43-5
neodecanoic acid	≥5 - <10	CAS: 26896-20-8
2,2'-(methylimino)diethanol	≥5 - <10	CAS: 105-59-9
2-amino-2-methylpropanol	≥5 - <10	CAS: 124-68-5
citric acid	≥1 - <5	CAS: 5949-29-1
benzotriazole	≥1 - <5	CAS: 95-14-7
Poly(oxy-1,2-ethanediyl), α-(carboxymethyl)-ω-(octyloxy)-	≥1 - <5	CAS: 53563-70-5

Additional information:

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

Ranges if listed above for hazardous ingredient(s) are prescribed ranges. The actual concentration(s) or actual concentration range(s) are being withheld as a trade secret.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified and would 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

Kvoid 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 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. Wash

clothing before reuse. Clean shoes thoroughly before reuse.

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Section 4. First-aid measures

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.

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 : 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.

Hazardous thermal decomposition products

 Decomposition products may include the following materials: carbon dioxide

carbon dioxide carbon monoxide nitrogen 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.

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Section 5. Fire-fighting measures

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.

Conditions for safe storage, including any incompatibilities

: Store between the following temperatures: 0 to 40°C (32 to 104°F). Shelf life: 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

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. 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 : Mmber.

Odor threshold : Characteristic.

Odor threshold : Not available.

pH : 8.9 to 9.9 [Conc. (% w/w): 5%]

Melting point/freezing point : Not available.

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Section 9. Physical and chemical properties and safety characteristics

Pour point : 43°C (-45.4°F) **Boiling point or initial** Not available.

boiling point and boiling range

Flash point : Open cup: Not applicable.

Evaporation rate : Not available. : Not available. **Flammability** : Not available.

Lower and upper explosion limit/flammability limit

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

: 1.059 g/cm³ [20°C (68°F)] **Density**

Solubility in water : Not available.

Dispersibility

Media	Result
cold water hot water	Dispersible Dispersible

Partition coefficient: n-

octanol/water

: Not applicable.

Auto-ignition temperature Decomposition temperature

: Not available. : Not available.

Viscosity

Dynamic (room temperature): Not available.

Kinematic (room temperature): Not available. Kinematic (40°C (104°F)): 9 mm²/s (9 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.

: Shelf life: 24 months. **Chemical stability**

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

2-aminoethanol Rat - Oral - LD50

1720 mg/kg

Rabbit - Dermal - LD50

2504 mg/kg

Rat - Dermal - LD50 neodecanoic acid

> 3640 mg/kg Rat - Oral - LD50 >2000 mg/kg Rat - Oral - LD50

2,2'-(methylimino)diethanol

4780 mg/kg

Rabbit - Dermal - LD50

>2000 mg/kg

Rabbit - Dermal - LD50 2-amino-2-methylpropanol

>2000 mg/kg

citric acid Rabbit - Dermal - LD50

> >2000 mg/kg Rat - Oral - LD50

benzotriazole

500 mg/kg

Rabbit - Dermal - LD50

>2000 mg/kg Rat - Oral - LD50 >2000 mg/kg

Result

Poly(oxy-1,2-ethanediyl), α-(carboxymethyl)-

ω-(octyloxy)-

Conclusion/Summary [Product] : Not available.

Skin corrosion/irritation

Product/ingredient name

2-aminoethanol Rabbit - Skin - Moderate irritant

Amount/concentration applied: 505 mg

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

Serious eye damage/eye irritation

Product/ingredient name Result

2-aminoethanol Rabbit - Eyes - Severe irritant

Amount/concentration applied: 250 ug

citric acid Rabbit - Eyes - Mild irritant

Duration of treatment/exposure: 0.5 minutes

Amount/concentration applied: 5 mg

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

Respiratory corrosion/irritation

Not available.

Conclusion/Summary [Product] : Not available.

Respiratory or skin sensitization

Not available.

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Section 11. Toxicological information

Conclusion/Summary [Product] : Not available.

Respiratory

Conclusion/Summary [Product] : Not available.

Germ cell mutagenicity

Not available.

Conclusion/Summary [Product] : Not available.

Carcinogenicity

Not available.

: Not available. **Conclusion/Summary [Product]**

Reproductive toxicity

Not available.

: Not available. **Conclusion/Summary [Product]**

Specific target organ toxicity (single exposure)

Product/ingredient name Result

2-aminoethanol SPECIFIC TARGET ORGAN TOXICITY (SINGLE

> EXPOSURE) (Respiratory tract irritation) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (SINGLE

citric acid EXPOSURE) (Respiratory tract irritation) - Category 3

Specific target organ toxicity (repeated exposure)

Not available.

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.

: Causes skin irritation. **Skin contact**

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

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Section 11. Toxicological information

Inhalation : No specific data.

Skin contact : Adverse symptoms may include the following:

> irritation redness

: No specific data. Ingestion

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

Short term exposure

Potential immediate

effects

: Not available.

: Not available. Potential delayed effects

Long term exposure

Potential immediate : Not available.

effects

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. : No known significant effects or critical hazards. **Reproductive toxicity**

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)
⊠ asorun 5	>2000	>2000	N/A	96.5	N/A
2-aminoethanol	1720	1100	N/A	11	N/A
neodecanoic acid	500	3640	N/A	N/A	N/A
2,2'-(methylimino)diethanol	4780	2500	N/A	N/A	N/A
2-amino-2-methylpropanol	N/A	2500	N/A	N/A	N/A
citric acid	N/A	2500	N/A	N/A	N/A
benzotriazole	500	2500	N/A	N/A	N/A
Poly(oxy-1,2-ethanediyl), α-(carboxymethyl)-ω- (octyloxy)-	2500	N/A	N/A	N/A	N/A

Section 12. Ecological information

Toxicity

Product/ingredient name Result

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neodecanoic acid



Section 12. Ecological information

2-aminoethanol Acute - LC50 - Fresh water

Fish - Bluegill - Lepomis macrochirus

Size: 40 to 50 mm 329160 µg/l [96 hours] Effect: Mortality

Chronic - NOEC

Fish

1.2 mg/l [30 days] **Chronic - NOEC**

Daphnia

0.85 mg/l [21 days]

Acute - LC50

Fish

>100 mg/l [96 hours]

Acute - EC50 Daphnia

>100 mg/l [48 hours]

2-amino-2-methylpropanol LC50

Daphnia

193 mg/l [48 hours]

benzotriazole Acute - EC50

OECD

Daphnia - Water flea - Daphnia galeata

Age: <24 hours 15.8 mg/l [48 hours] Effect: Intoxication

LC50 Fish

180 mg/l [96 hours]

EC50 Algae

75 mg/l [72 hours]

Conclusion/Summary [Product] : Not available.

Persistence and degradability

Not available.

Conclusion/Summary [Product] : Not available.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
enzotriazole	-	-	Not readily

Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
2-aminoethanol	-1.31	-	Low
neodecanoic acid	2.1	<225	Low
2,2'-(methylimino)diethanol	-1.08	-	Low
2-amino-2-methylpropanol	-0.63	-	Low
citric acid	-1.72	-	Low
benzotriazole	1.44	-	Low

Mobility in soil

Soil/Water partition coefficient

: Not available.

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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

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

Section 15. Regulatory information

Canadian lists

Canadian NPRI : None of the components are listed. **CEPA Toxic substances** : None of the components are listed.

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

List name	Ingredient name	Status
Schedule III	Methyldiethanolamine	Listed
	Triethanolamine	Listed

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

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Section 15. Regulatory information

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Inventory list

Canada : All components are listed or exempted.United States : All components are active or exempted.

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

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

HPR = Hazardous Products Regulations IATA = International Air Transport Association

IBC = Intermediate Bulk Container

IMDG = International Maritime Dangerous Goods

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
SKIN IRRITATION - Category 2	Expert judgment
EYE IRRITATION - Category 2A	Expert judgment

References : Not available.

▼ 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 abovenamed 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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