Safety Data Sheet

acc. to 29 CFR 1910.1200 App D

METALGUARD® A90

Version number: 6.0
Replaces version of: 2020-03-01 (5)

Revision: 2026-03-13

SECTION 1: Identification

1.1 Product identifier

Trade name: **METALGUARD® A90**

Product code(s): A90

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

Relevant identified uses: Corrosion inhibitor for automotive antifreeze
Industrial use
Professional use

Uses advised against: Do not use for private purposes (household)
Do not use for other than recommended use

1.3 Details of the supplier of the safety data sheet

WEBA Technology
NFS CAP WEBA, LLC
500 Cummings Center, Suite 6050
Beverly MA 01915 United States

Telephone: +1 812-822-3658
e-mail: info@webacorp.com

Additional information

e-mail (competent person): info@webacorp.com

1.4 Emergency telephone number

Poison center		
Country	**Name**	**Telephone**
United States	CHEMTREC	1-800-424-9300 (NORTH AMERICA) +1-703-527-3887 (INTERNATIONAL)

SECTION 2: Hazard(s) identification

2.1 Classification of the substance or mixture

Classification acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)

Section	Hazard class	Category	Hazard class and category	Hazard statement
A.2	skin corrosion/irritation	2	Skin Irrit. 2	H315
A.3	serious eye damage/eye irritation	1	Eye Dam. 1	H318
A.7	reproductive toxicity	1B	Repr. 1B	H360D

For full text of H-phrases: see SECTION 16

2.2 Label elements

Labelling acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)

- signal word Danger

- pictograms

GHS05, GHS08

- hazard statements

H315	Causes skin irritation.
H318	Causes serious eye damage.
H360D	May damage the unborn child.

- precautionary statements

P202	Do not handle until all safety precautions have been read and understood.
P280	Wear protective gloves/eye protection/face protection.
P302+P352	If on skin: Wash with plenty of water.
P305+P351+P338	If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a poison center/doctor.
P362+P364	Take off contaminated clothing and wash it before reuse.
P405	Store locked up.
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.

- hazardous ingredients for labelling

Contains: potassium 2-ethylhexanoate; Sodium 4(or 5)-methyl-1H-benzotriazolide.

2.3 Other hazards

Hazards not otherwise classified

May be harmful if swallowed (GHS category 5: acutely toxic - oral).
May be harmful in contact with skin (GHS category 5: acutely toxic - dermal).
Harmful to aquatic life (GHS category 3: aquatic toxicity - acute).

Can cause very long-lasting and diffuse contamination of water resources.

Results of PBT and vPvB assessment

Does not contain a PBT-/vPvB-substance at a concentration of ≥ 0.1%.

Endocrine disrupting properties

Does not contain an endocrine disruptor (ED) in a concentration of ≥ 0.1%.

SECTION 3: Composition/information on ingredients

3.1 Substances

Not relevant (mixture).

3.2 Mixtures

The product does not contain (other) ingredients which are classified according to present knowledge of the supplier and contribute to the classification of the product and hence require reporting in this section.

Name of substance	Identifier	Wt%	Classification acc. to GHS	Pictograms	Notes	Specific Conc. Limits
potassium 2-ethylhexanoate	CAS No 3164-85-0	30 – < 60	Skin Irrit. 2 / H315 Eye Dam. 1 / H318 Repr. 1B / H360D		12	
Dipotassium sebacate	CAS No 52457-55-3	1 – < 5	Eye Irrit. 2 / H319			
Sodium molybdate	CAS No 7631-95-0	1 – < 5	cD / OSHA003			

Name of substance	Identifier	Wt%	Classification acc. to GHS	Pictograms	Notes	Specific Conc. Limits
Sodium 4(or 5)-methyl-1H-benzotriazolide	CAS No 64665-57-2	1 - < 5	Acute Tox. 4 / H302 Skin Corr. 1B / H314 Eye Dam. 1 / H318			
sodium nitrite	CAS No 7632-00-0	1 - < 5	Acute Tox. 3 / H301 Eye Irrit. 2 / H319 Ox. Sol. 3 / H272 cD / OSHA003			

Notes

12: The classification of mixtures as reproductive toxicant is necessary if the sum of the concentrations of individual substances covered by this entry in the mixture as placed on the market is equal to, or above, the applicable generic concentration limit for the assigned category, or a specific concentration limit given in this entry.

Consideration of other advice

As per paragraph (i) of OSHA Hazard Communication Standard 29 CFR 1910.1200, the formulation is considered a trade secret and the specific chemical identity and exact percentage (concentration) of this composition has been withheld. The specific chemical identity and exact percentage of this composition will be provided to health professionals, employees, or designated representatives in accordance with applicable provisions of paragraph (i).

Remarks

All the percentages given are percentages by weight unless stated otherwise. For full text of H-phrases: see SECTION 16.

SECTION 4: First-aid measures

4.1 Description of first-aid measures

General notes

Do not leave affected person unattended. Remove victim out of the danger area. In case of unconsciousness place person in the recovery position. Never give anything by mouth. Take off immediately all contaminated clothing. In all cases of doubt, or when symptoms persist, seek medical advice.

Following inhalation

Provide fresh air. If breathing is irregular or stopped, immediately seek medical assistance and start first aid actions. In case of respiratory tract irritation, consult a physician.

Following skin contact

Wash with plenty of soap and water. Call a POISON CENTER/doctor.

Following eye contact

Irrigate copiously with clean, fresh water for at least 15 minutes, holding the eyelids apart. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.

Following ingestion

Rinse mouth with water (only if the person is conscious). Do NOT induce vomiting. Call a POISON CENTER or doctor/physician if you feel unwell.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms and effects are not known to date.

4.3 Indication of any immediate medical attention and special treatment needed

For specialist advice physicians should contact the poison centre. Use of gastric lavage or emesis is contraindicated. Risk of gastric perforation. Asphyxia from glottal edema may occur. Marked decrease in blood pressure may occur with moist rales, frothy sputum, and high pulse pressure.

SECTION 5: Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media

Coordinate firefighting measures to the fire surroundings.

Unsuitable extinguishing media

Water jet.

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products

During fire hazardous fumes/smoke could be produced: sodium oxides, potassium oxides.

5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes. Coordinate firefighting measures to the fire surroundings. Do not allow firefighting water to enter drains or water courses. Collect contaminated firefighting water separately. Fight fire with normal precautions from a reasonable distance.

Special protective equipment for firefighters

Self-contained breathing apparatus (SCBA). Standard protective clothing for firefighters.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Remove persons to safety. Ventilate affected area.

For emergency responders

Wear breathing apparatus if exposed to vapors/dust/aerosols/gases. Wear personal protective equipment/face protection.

6.2 Environmental precautions

Keep away from drains, surface and ground water. Retain contaminated washing water and dispose of it. If substance has entered a water course or sewer, inform the responsible authority.

6.3 Methods and material for containment and cleaning up

Advice on how to contain a spill

Covering of drains.

Advice on how to clean up a spill

Absorb with liquid-binding material (sand, diatomaceous earth, acid binder, universal binder, sawdust).

Appropriate containment techniques

Use of adsorbent materials.

Other information relating to spills and releases

Place in appropriate containers for disposal. Ventilate affected area.

6.4 Reference to other sections

Hazardous combustion products: see section 5. Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal considerations: see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Recommendations

- measures to prevent fire as well as aerosol and dust generation

Use local and general ventilation. Use only in well-ventilated areas.

Advice on general occupational hygiene

Wash hands after use. Do not eat, drink and smoke in work areas. Remove contaminated clothing and protective equipment before entering eating areas. Never keep food or drink in the vicinity of chemicals. Never place chemicals in containers that are normally used for food or drink. Keep away from food, drink and animal feedingstuffs.

7.2 Conditions for safe storage, including any incompatibilities

Managing of associated risks

- flammability hazards

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

- incompatible substances or mixtures

Keep away from alkalis, oxidising substances, acids.

Control of the effects

Protect against external exposure, such as

High temperatures. UV-radiation/sunlight. Frost.

Consideration of other advice

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

- specific designs for storage rooms or vessels

- storage temperature — Minimum storage temperature: 15.5 °C/60 °F

- packaging compatibilities

Only packagings which are approved (e.g. acc. to the Dangerous Goods Regulations) may be used.

7.3 Specific end use(s)

See section 1.2.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

National limit values

No information available.

Relevant DNELs/DMELs/PNECs and other threshold levels

Relevant DNELs of components of the mixture

Name of substance	CAS No	End-point	Threshold level	Protection goal, route of exposure	Used in	Exposure time
potassium 2-ethyl-hexanoate	3164-85-0	DNEL	16.79 mg/m³	human, inhalatory	worker (industry)	chronic - systemic effects
potassium 2-ethyl-hexanoate	3164-85-0	DNEL	2.38 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects
potassium 2-ethyl-hexanoate	3164-85-0	DNEL	4.14 mg/m³	human, inhalatory	consumer (private households)	chronic - systemic effects
potassium 2-ethyl-hexanoate	3164-85-0	DNEL	1.19 mg/kg bw/day	human, dermal	consumer (private households)	chronic - systemic effects
potassium 2-ethyl-hexanoate	3164-85-0	DNEL	1.19 mg/kg bw/day	human, oral	consumer (private households)	chronic - systemic effects
Sodium molybdate	7631-95-0	DNEL	23.97 mg/m³	human, inhalatory	worker (industry)	chronic - systemic effects
Sodium molybdate	7631-95-0	DNEL	7.15 mg/m³	human, inhalatory	consumer (private households)	chronic - systemic effects
Sodium molybdate	7631-95-0	DNEL	7.3 mg/kg bw/day	human, oral	consumer (private households)	chronic - systemic effects
Sodium 4(or 5)-methyl-1H-benzo-triazolide	64665-57-2	DNEL	0.54 mg/kg bw/day	human, oral	consumer (private households)	acute - systemic effects
Sodium 4(or 5)-methyl-1H-benzo-triazolide	64665-57-2	DNEL	98.7 mg/m³	human, inhalatory	worker (industry)	chronic - systemic effects
Sodium 4(or 5)-methyl-1H-benzo-triazolide	64665-57-2	DNEL	1.4 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects
Sodium 4(or 5)-	64665-57-2	DNEL	17.4 mg/m³	human, inhalatory	consumer (private	chronic - systemic

Relevant DNELs of components of the mixture

Name of substance	CAS No	End-point	Threshold level	Protection goal, route of exposure	Used in	Exposure time
methyl-1H-benzotriazolide					households)	effects
Sodium 4(or 5)-methyl-1H-benzotriazolide	64665-57-2	DNEL	0.5 mg/kg bw/day	human, dermal	consumer (private households)	chronic - systemic effects
Sodium 4(or 5)-methyl-1H-benzotriazolide	64665-57-2	DNEL	0.5 mg/kg bw/day	human, oral	consumer (private households)	chronic - systemic effects
sodium nitrite	7632-00-0	DNEL	2 mg/m³	human, inhalatory	worker (industry)	chronic - systemic effects
sodium nitrite	7632-00-0	DNEL	2 mg/m³	human, inhalatory	worker (industry)	acute - systemic effects

Relevant PNECs of components

Name of substance	CAS No	End-point	Threshold level	Organism	Environmental compartment	Exposure time
potassium 2-ethylhexanoate	3164-85-0	PNEC	0.493 mg/l	aquatic organisms	water	intermittent release
potassium 2-ethylhexanoate	3164-85-0	PNEC	0.36 mg/l	aquatic organisms	freshwater	short-term (single instance)
potassium 2-ethylhexanoate	3164-85-0	PNEC	0.036 mg/l	aquatic organisms	marine water	short-term (single instance)
potassium 2-ethylhexanoate	3164-85-0	PNEC	6.37 mg/kg	aquatic organisms	freshwater sediment	short-term (single instance)
potassium 2-ethylhexanoate	3164-85-0	PNEC	0.637 mg/kg	aquatic organisms	marine sediment	short-term (single instance)
potassium 2-ethylhexanoate	3164-85-0	PNEC	1.06 mg/kg	terrestrial organisms	soil	short-term (single instance)
potassium 2-ethylhexanoate	3164-85-0	PNEC	85.4 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
Sodium molybdate	7631-95-0	PNEC	25.5 mg/l	aquatic organisms	freshwater	short-term (single instance)
Sodium molybdate	7631-95-0	PNEC	4.89 mg/l	aquatic organisms	marine water	short-term (single instance)
Sodium molybdate	7631-95-0	PNEC	46.6 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
Sodium molybdate	7631-95-0	PNEC	45,500 mg/kg	aquatic organisms	freshwater sediment	short-term (single instance)
Sodium molybdate	7631-95-0	PNEC	5,080 mg/kg	aquatic organisms	marine sediment	short-term (single instance)
Sodium molybdate	7631-95-0	PNEC	21.2 mg/kg	terrestrial organisms	soil	short-term (single instance)
Sodium 4(or 5)-methyl-1H-benzotriazolide	64665-57-2	PNEC	8 µg/l	aquatic organisms	freshwater	short-term (single instance)
Sodium 4(or 5)-methyl-1H-benzotriazolide	64665-57-2	PNEC	8 µg/l	aquatic organisms	marine water	short-term (single instance)

Relevant PNECs of components

Name of substance	CAS No	End-point	Threshold level	Organism	Environmental compartment	Exposure time
Sodium 4(or 5)-methyl-1H-benzotriazolide	64665-57-2	PNEC	0.218 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
Sodium 4(or 5)-methyl-1H-benzotriazolide	64665-57-2	PNEC	0.117 mg/kg	aquatic organisms	freshwater sediment	short-term (single instance)
Sodium 4(or 5)-methyl-1H-benzotriazolide	64665-57-2	PNEC	0.117 mg/kg	aquatic organisms	marine sediment	short-term (single instance)
Sodium 4(or 5)-methyl-1H-benzotriazolide	64665-57-2	PNEC	45 µg/kg	terrestrial organisms	soil	short-term (single instance)
sodium nitrite	7632-00-0	PNEC	0.005 mg/l	aquatic organisms	freshwater	short-term (single instance)
sodium nitrite	7632-00-0	PNEC	0.006 mg/l	aquatic organisms	marine water	short-term (single instance)
sodium nitrite	7632-00-0	PNEC	21 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
sodium nitrite	7632-00-0	PNEC	0.019 mg/kg	aquatic organisms	freshwater sediment	short-term (single instance)
sodium nitrite	7632-00-0	PNEC	0.022 mg/kg	aquatic organisms	marine sediment	short-term (single instance)
sodium nitrite	7632-00-0	PNEC	0.001 mg/kg	terrestrial organisms	soil	short-term (single instance)

8.2 Exposure controls

Appropriate engineering controls

General ventilation. Provide eyewash stations and safety showers at the workplace.

Individual protection measures (personal protective equipment)

Eye/face protection

Use safety goggle with side protection

Skin protection

Chemical protective clothing.

Hand protection

Wear suitable gloves. Check leak-tightness/impermeability prior to use. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves. The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

- type of material

Nitrile rubber

- material thickness

Use gloves with a minimum material thickness: ≥ 0.38 mm.

- breakthrough time of the glove material

Use gloves with a minimum breakthrough time of the glove material: >480 minutes (permeation: level 6).

- other protection measures

Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended. Wash hands thoroughly after handling.

Respiratory protection

In case of inadequate ventilation wear respiratory protection. Type: ABEK-P2 (combined filters against gases, vapors and particles, color code: Brown/Grey/Yellow/Green/White). Observe the OSHA respirator regulations cited in 29 CFR 1910.134 and use NIOSH/MSHA approved respirators.

Environmental exposure controls

Take appropriate precautions to avoid uncontrolled release into the environment. Keep away from drains, surface and ground water.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	liquid
Color	clear to amber
Odor	distinctive
Melting point/freezing point	5 °C 40 °F
Boiling point or initial boiling point and boiling range	>100 °C >212 °F
Evaporation rate	not determined
Flammability	this material is combustible, but will not ignite readily
Lower and upper explosion limit	LEL: UEL: not determined
Flash point	no data available
Auto-ignition temperature	not determined
Decomposition temperature	no data available
pH (value)	9.2 – 10
Kinematic viscosity	not determined

Solubility

Water solubility	miscible in any proportion

Partition coefficient n-octanol/water (log value)	this information is not available

Vapor pressure	10 mmHg at 20 °C 10 mmHg at 68 °F

Density and/or relative density

Density	1.065 – 1.075 $^{g}/_{cm^3}$ at 21.1 °C 1.065 – 1.075 $^{g}/_{cm^3}$ at 70 °F
Relative vapour density	>2 (air = 1)

Particle characteristics	not relevant (liquid)

9.2 Other information

Information with regard to physical hazard classes	hazard classes acc. to GHS (physical hazards): not relevant

Other safety characteristics

Miscibility	Completely miscible with water.

SECTION 10: Stability and reactivity

10.1 Reactivity

May crystallize at temperatures below 15.5 °C/60 °F.

10.2 Chemical stability

The material is stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

10.3 Possibility of hazardous reactions

No known hazardous reactions.

10.4 Conditions to avoid

Avoid temperatures: < 15.5 °C/60 °F

10.5 Incompatible materials

Acids, bases, oxidizers

10.6 Hazardous decomposition products

Reasonably anticipated hazardous decomposition products produced as a result of use, storage, spill and heating are not known. Hazardous combustion products: see section 5.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Test data are not available for the complete mixture.

Classification procedure

The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

Classification acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)

Acute toxicity

Shall not be classified as acutely toxic.

Acute toxicity estimate (ATE) of components

Name of substance	CAS No	Exposure route	ATE
potassium 2-ethylhexanoate	3164-85-0	oral	2,043 $^{mg}/_{kg}$
potassium 2-ethylhexanoate	3164-85-0	dermal	>2,000 $^{mg}/_{kg}$
Sodium molybdate	7631-95-0	oral	4,233 $^{mg}/_{kg}$
Sodium molybdate	7631-95-0	dermal	>2,000 $^{mg}/_{kg}$
Sodium molybdate	7631-95-0	inhalation: dust/mist	>5.1 $^{mg}/_{l}$/4h
Sodium 4(or 5)-methyl-1H-benzotriazolide	64665-57-2	oral	735 $^{mg}/_{kg}$
Sodium 4(or 5)-methyl-1H-benzotriazolide	64665-57-2	dermal	>2,000 $^{mg}/_{kg}$
sodium nitrite	7632-00-0	oral	100 $^{mg}/_{kg}$

Acute toxicity of components					
Name of substance	**CAS No**	**Exposure route**	**Endpoint**	**Value**	**Species**
potassium 2-ethylhexanoate	3164-85-0	oral	LD50	2,043 $^{mg}/_{kg}$	rat
potassium 2-ethylhexanoate	3164-85-0	dermal	LD50	>2,000 $^{mg}/_{kg}$	rat
Sodium molybdate	7631-95-0	oral	LD50	4,233 $^{mg}/_{kg}$	rat
Sodium molybdate	7631-95-0	inhalation: dust/mist	LC50	>5.1 $^{mg}/_{l}$/4h	rat
Sodium molybdate	7631-95-0	dermal	LD50	>2,000 $^{mg}/_{kg}$	rat
Sodium 4(or 5)-methyl-1H-benzo-triazolide	64665-57-2	oral	LD50	735 $^{mg}/_{kg}$	rat
Sodium 4(or 5)-methyl-1H-benzo-triazolide	64665-57-2	dermal	LD50	>2,000 $^{mg}/_{kg}$	rabbit

Skin corrosion/irritation

Causes skin irritation.

Serious eye damage/eye irritation

Causes serious eye damage.

Respiratory or skin sensitization

Shall not be classified as a respiratory or skin sensitizer.

Germ cell mutagenicity

Shall not be classified as germ cell mutagenic.

Carcinogenicity

Shall not be classified as carcinogenic.

Reproductive toxicity

May damage the unborn child.

Specific target organ toxicity - single exposure

Shall not be classified as a specific target organ toxicant (single exposure).

Specific target organ toxicity - repeated exposure

Shall not be classified as a specific target organ toxicant (repeated exposure).

Aspiration hazard

Shall not be classified as presenting an aspiration hazard.

11.2 Information on other hazards

Endocrine disrupting properties

Does not contain an endocrine disruptor (ED) in a concentration of ≥ 0.1%.

SECTION 12: Ecological information

12.1 Toxicity

Harmful to aquatic life.

Aquatic toxicity (acute) of components of the mixture					
Name of substance	**CAS No**	**Endpoint**	**Value**	**Species**	**Exposure time**
potassium 2-ethylhexanoate	3164-85-0	ErC50	49.3 $^{mg}/_{l}$	algae	72 h
potassium 2-ethylhexanoate	3164-85-0	LC50	>100 $^{mg}/_{l}$	japanese ricefish/medaka (Oryzias latipes)	96 h

Aquatic toxicity (acute) of components of the mixture

Name of substance	CAS No	Endpoint	Value	Species	Exposure time
potassium 2-ethylhexanoate	3164-85-0	EC50	913 mg/l	daphnia magna	48 h
potassium 2-ethylhexanoate	3164-85-0	NOEC	130 mg/l	algae	72 h
potassium 2-ethylhexanoate	3164-85-0	growth rate (ErCx) 10%	32 mg/l	algae	72 h
potassium 2-ethylhexanoate	3164-85-0	growth (EbCx) 10%	231.2 mg/l	algae	72 h
Sodium molybdate	7631-95-0	LC50	609.1 mg/l	fathead minnow (Pimephales promelas)	96 h
Sodium molybdate	7631-95-0	EC50	2,848 mg/l	daphnia magna	48 h
Sodium molybdate	7631-95-0	NOEC	1,653 mg/l	daphnia magna	48 h
Sodium 4(or 5)-methyl-1H-benzotriazolide	64665-57-2	ErC50	75 mg/l	algae	72 h
Sodium 4(or 5)-methyl-1H-benzotriazolide	64665-57-2	LC50	240 mg/l	zebra fish (Danio rerio)	24 h
Sodium 4(or 5)-methyl-1H-benzotriazolide	64665-57-2	EC50	15.8 mg/l	aquatic invertebrates	48 h
Sodium 4(or 5)-methyl-1H-benzotriazolide	64665-57-2	NOEC	30 mg/l	sheepshead minnow (Cyprinodon variegatus)	96 h
Sodium 4(or 5)-methyl-1H-benzotriazolide	64665-57-2	growth rate (ErCx) 10%	1.18 mg/l	algae	72 h
Sodium 4(or 5)-methyl-1H-benzotriazolide	64665-57-2	growth (EbCx) 10%	8.56 mg/l	aquatic invertebrates	48 h
sodium nitrite	7632-00-0	ErC50	>100 mg/l	algae	72 h
sodium nitrite	7632-00-0	LC50	0.54 – 26.3 mg/l	rainbow trout (Oncorhynchus mykiss)	96 h
sodium nitrite	7632-00-0	EC50	15.4 mg/l	daphnia magna	48 h
sodium nitrite	7632-00-0	NOEC	100 mg/l	green algae (Desmodesmus subspicatus)	72 h

Aquatic toxicity (chronic) of components of the mixture

Name of substance	CAS No	Endpoint	Value	Species	Exposure time
potassium 2-ethylhexanoate	3164-85-0	EC50	43.1 mg/l	daphnia magna	21 d
potassium 2-ethylhexanoate	3164-85-0	LOEC	63 mg/l	aquatic invertebrates	21 d
potassium 2-ethylhexanoate	3164-85-0	NOEC	18 mg/l	daphnia magna	21 d
potassium 2-ethylhexanoate	3164-85-0	growth (EbCx) 10%	19.9 mg/l	daphnia magna	21 d
Sodium molybdate	7631-95-0	EC50	1,100 mg/l	microorganisms	30 min
Sodium molybdate	7631-95-0	growth (EbCx) 10%	325 mg/l	microorganisms	3 h
Sodium 4(or 5)-methyl-1H-benzotriazolide	64665-57-2	EC50	>37.6 mg/l	daphnia magna	21 d
Sodium 4(or 5)-methyl-1H-benzotriazolide	64665-57-2	NOEC	18.4 mg/l	daphnia magna	21 d
Sodium 4(or 5)-methyl-1H-benzo-	64665-57-2	LOEC	37.6	daphnia magna	21 d

Aquatic toxicity (chronic) of components of the mixture

Name of substance	CAS No	Endpoint	Value	Species	Exposure time
triazolide			$^{mg}/_{l}$		
Sodium 4(or 5)-methyl-1H-benzo-triazolide	64665-57-2	growth (EbCx) 10%	0.97 $^{mg}/_{l}$	aquatic invertebrates	21 d
sodium nitrite	7632-00-0	EC50	114.9 $^{mg}/_{l}$	aquatic invertebrates	80 d
sodium nitrite	7632-00-0	LC50	>95.6 $^{mg}/_{l}$	aquatic invertebrates	80 d
sodium nitrite	7632-00-0	NOEC	21 $^{mg}/_{l}$	common carp (Cyprinus carpio)	29 d
sodium nitrite	7632-00-0	growth (EbCx) 10%	210 $^{mg}/_{l}$	microorganisms	180 min

12.2 Persistence and degradability

Data are not available.

12.3 Bioaccumulative potential

Data are not available.

12.4 Mobility in soil

Data are not available.

12.5 Results of PBT and vPvB assessment

Does not contain a PBT-/vPvB-substance at a concentration of ≥ 0.1%.

12.6 Endocrine disrupting properties

Does not contain an endocrine disruptor (ED) in a concentration of ≥ 0.1%.

12.7 Other adverse effects

Data are not available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Sewage disposal-relevant information

Do not empty into drains. Avoid release to the environment.

Waste treatment of containers/packages

Only packagings which are approved (e.g. acc. to DOT) may be used. Completely emptied packages can be recycled. Handle contaminated packages in the same way as the substance itself.

Remarks

Please consider the relevant national or regional provisions. Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities.

SECTION 14: Transport information

14.1 UN number	not subject to transport regulations
14.2 UN proper shipping name	not relevant
14.3 Transport hazard class(es)	none
14.4 Packing group	not assigned
14.5 Environmental hazards	non-environmentally hazardous acc. to the dangerous goods regulations

14.6 Special precautions for user

There is no additional information.

14.7 Transport in bulk according to IMO instruments

No data available.

Additional information for each of the UN Model Regulations

Transport of dangerous goods by road or rail (49 CFR US DOT) - additional information

Not subject to transport regulations.

International Maritime Dangerous Goods Code (IMDG) - additional information

Not subject to IMDG.

International Civil Aviation Organization (ICAO-IATA/DGR) - additional information

Not subject to ICAO-IATA.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations specific for the product in question

National regulations (United States)

Toxic Substance Control Act (TSCA) not all ingredients are listed (ACTIVE)

Superfund Amendment and Reauthorization Act (SARA TITLE III)

- The List of Extremely Hazardous Substances and Their Threshold Planning Quantities (EPCRA Section 302, 304)

None of the ingredients are listed.

- Specific Toxic Chemical Listings (EPCRA Section 313)

Toxics Release Inventory: Specific Toxic Chemical Listings			
Name acc. to inventory	**CAS No**	**Remarks**	**Effective date**
sodium nitrite	7632-00-0		1995-01-01

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)

- List of Hazardous Substances and Reportable Quantities (CERCLA section 102a) (40 CFR 302.4)

Name acc. to inventory	CAS No	Remarks	Statutory code	Final RQ pounds (Kg)
sodium nitrite	7632-00-0		1	100 (45,4)

Legend

1 "1" indicates that the statutory source is section 311(b)(2) of the Clean Water Act

Clean Air Act

None of the ingredients are listed.

Right to Know Hazardous Substance List

- Cleaning Product Right to Know Act Substance List (CA-RTK)

Name acc. to inventory	CAS No	Functionality	Authoritative Lists
2-ethylhexanoic acid and its salts [with the exception of those specified elsewhere in this Annex]			EC Annex VI CMRs - Cat. 1B

- Toxic or Hazardous Substance List (MA-TURA)

Name acc. to inventory	CAS No	DEP CODE	PBT / HHS / LHS	PBT / HHS Threshold	De Minimis Concentration Threshold
Sodium nitrite	7632-00-0				1.0 %

- Hazardous Substances List (MN-ERTK)

Name acc. to inventory	CAS No	References	Remarks
Molybdenum, as Mo, soluble/insoluble compounds		A, O	

Legend

A American Conference of Governmental Industrial Hygienists (ACGIH), "Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices for 1992-93", available from ACGIH

O Occupational Safety and Health Administration (OSHA), Safety and Health Standards, Code of Federal Regulations, title 29, part 1910, subpart Z, "Toxic and Hazardous Substances, 1990." General information: Minnesota Department of Labor and Industry, Occupational Safety and Health Division

- Hazardous Substance List (NJ-RTK)

Name acc. to inventory	CAS No	Remarks	Classifications
2-ethylhexanoic acid (hexanoic acid, 2-ethyl-)	149-57-5		
sodium nitrite	7632-00-0		

- Hazardous Substance List (Chapter 323) (PA-RTK)

Name acc. to inventory	CAS No	Classification
NITROUS ACID, SODIUM SALT	7632-00-0	E

Legend

E Environmental hazard

- Hazardous Substance List (RI-RTK)

None of the ingredients are listed.

California Environmental Protection Agency (Cal/EPA): Proposition 65 - Safe Drinking Water and Toxic Enforcement Act of 1987

None of the ingredients are listed.

Industry or sector specific available guidance(s)

NPCA-HMIS® III

Hazardous Materials Identification System. American Coatings Association.

Category	Rating	Description
Chronic	*	chronic (long-term) health effects may result from repeated overexposure
Health	3	major injury likely unless prompt action is taken and medical treatment is given
Flammability	1	material that must be preheated before ignition can occur
Physical hazard	0	material that is normally stable, even under fire conditions, and will not react with water, polymerize, decompose, condense, or self-react. Non-explosive
Personal protection	-	

NFPA® 704

National Fire Protection Association: Standard System for the Identification of the Hazards of Materials for Emergency Response (United States).

Category	Degree of hazard	Description
Flammability	1	material that must be preheated before ignition can occur
Health	3	material that, under emergency conditions, can cause serious or permanent injury
Instability	0	material that is normally stable, even under fire conditions
Special hazard		

15.2 Chemical Safety Assessment

No Chemical Safety Assessment has been carried out for this mixture by the supplier.

SECTION 16: Other information, including date of preparation or last revision

Indication of changes (revised safety data sheet)

Complete revision of the safety data sheet.

Abbreviations and acronyms

Abbr.	Descriptions of used abbreviations
49 CFR US DOT	49 CFR U.S. Department of Transportation
Acute Tox.	Acute toxicity
ATE	Acute Toxicity Estimate
CAS	Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)
cD	Combustible dust
DEP CODE	Department of Environmental Protection Code
DGR	Dangerous Goods Regulations (see IATA/DGR)
DMEL	Derived Minimal Effect Level
DNEL	Derived No-Effect Level
DOT	Department of Transportation (USA)
EC50	Effective Concentration 50 %. The EC50 corresponds to the concentration of a tested substance causing 50 % changes in response (e.g. on growth) during a specified time interval
ED	Endocrine disruptor
ErC50	≡ EC50: in this method, that concentration of test substance which results in a 50 % reduction in either growth (EbC50) or growth rate (ErC50) relative to the control
Eye Dam.	Seriously damaging to the eye
Eye Irrit.	Irritant to the eye
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations
HHS	Higher hazard substance
IATA	International Air Transport Association
IATA/DGR	Dangerous Goods Regulations (DGR) for the air transport (IATA)
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods Code
LC50	Lethal Concentration 50%: the LC50 corresponds to the concentration of a tested substance causing 50 % lethality during a specified time interval
LD50	Lethal Dose 50 %: the LD50 corresponds to the dose of a tested substance causing 50 % lethality during a spe-

Abbr.	Descriptions of used abbreviations
	cified time interval
LEL	Lower explosion limit (LEL)
LHS	Lower hazard substance
LOEC	Lowest Observed Effect Concentration
NOEC	No Observed Effect Concentration
NPCA-HMIS® III	National Paint and Coatings Association: Hazardous Materials Identification System - HMIS® III, Third Edition
OSHA	Occupational Safety and Health Administration (United States)
Ox. Sol.	Oxidizing solid
PBT	Persistent, Bioaccumulative and Toxic
PNEC	Predicted No-Effect Concentration
Repr.	Reproductive toxicity
RTECS	Registry of Toxic Effects of Chemical Substances (database of NIOSH with toxicological information)
Skin Corr.	Corrosive to skin
Skin Irrit.	Irritant to skin
UEL	Upper explosion limit (UEL)
vPvB	Very Persistent and very Bioaccumulative

Key literature references and sources for data

OSHA Hazard Communication Standard (HCS), 29 CFR 1910.1200.

Transport of dangerous goods by road or rail (49 CFR US DOT). International Maritime Dangerous Goods Code (IMDG). Dangerous Goods Regulations (DGR) for the air transport (IATA).

Classification procedure

Physical and chemical properties: The classification is based on tested mixture.
Health hazards, Environmental hazards: The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

List of relevant phrases (code and full text as stated in section 2 and 3)

Code	Text
H272	May intensify fire; oxidizer.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H360D	May damage the unborn child.
OSHA003	May form combustible dust concentrations in air.

Disclaimer

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.