

METALGUARD® A40N

Version number: 6.0
Replaces version of: 2022-04-21 (5)

Revision: 2026-03-13

SECTION 1: Identification

1.1 Product identifier

Trade name **METALGUARD® A40N**
Product code(s) A40N

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 products which come into contact with foodstuffs
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.10	acute toxicity (oral)	4	Acute Tox. 4	H302
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

METALGUARD® A40N

Version number: 6.0
Replaces version of: 2022-04-21 (5)

Revision: 2026-03-13

2.2 Label elements

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

- signal word Danger

- pictograms

GHS05, GHS07,
GHS08

- hazard statements

H302 Harmful if swallowed.
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.
P270 Do not eat, drink or smoke when using this product.
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.
P330 Rinse mouth.
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 nitrite; Sodium 4(or 5)-methyl-1H-benzotriazolide; potassium hydroxide.

2.3 Other hazards

Special danger of slipping by leaking/spilling product.

Hazards not otherwise classified

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

May be harmful in contact with skin (GHS category 5: acutely toxic - dermal).
Toxic to aquatic life with long lasting effects (GHS category 2: aquatic toxicity - acute and/or chronic).
Harmful to aquatic life with long lasting effects (GHS category 3: aquatic toxicity - acute and/or chronic).

Results of PBT and vPvB assessment

Does not contain a PBT-/vPvB-substance at a concentration of $\geq 0.1\%$.

Endocrine disrupting properties

Does not contain an endocrine disruptor (ED) in a concentration of $\geq 0.1\%$.**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.

METALGUARD® A40N

 Version number: 6.0
 Replaces version of: 2022-04-21 (5)

Revision: 2026-03-13

Name of substance	Identifier	Wt%	Classification acc. to GHS	Pictograms	Notes
potassium 2-ethylhexanoate	CAS No 3164-85-0	60 – < 80	Skin Irrit. 2 / H315 Eye Dam. 1 / H318 Repr. 1B / H360D		12
sodium nitrite	CAS No 7632-00-0	5 – < 10	Acute Tox. 3 / H301 Eye Irrit. 2 / H319 Ox. Sol. 3 / H272 cD / OSHA003		
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		
potassium hydroxide	CAS No 1310-58-3	0.1 – < 1	Acute Tox. 4 / H302 Skin Corr. 1A / H314 Eye Dam. 1 / H318 STOT SE 3 / H335 Met. Corr. 1 / H290		

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/doctor.

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.

METALGUARD® A40N

Version number: 6.0
Replaces version of: 2022-04-21 (5)

Revision: 2026-03-13

SECTION 5: Fire-fighting measures**5.1 Extinguishing media**

Suitable extinguishing media

Coordinate firefighting measures to the fire surroundings.

Unsuitable extinguishing media

There is no additional information.

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products

During fire hazardous fumes/smoke could be produced: phosphorus oxides (P_xO_y), 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.

METALGUARD® A40N

 Version number: 6.0
 Replaces version of: 2022-04-21 (5)

Revision: 2026-03-13

7.2 Conditions for safe storage, including any incompatibilities

Managing of associated risks

- flammability hazards
Keep away from sources of ignition - 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
Minimum storage temperature: 15.5 °C/60 °F
- storage temperature
- 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

Occupational exposure limit values (Workplace Exposure Limits)									
Cou ntry	Name of agent	CAS No	Identi-fier	TWA [ppm]	TWA [mg/m ³]	STEL [ppm]	STEL [mg/m ³]	Nota-tion	Source
US	potassium hydroxide	1310-58-3	TLV®						ACGIH® 2025

Notation

STEL short-term exposure limit: a limit value above which exposure should not occur and which is related to a 15-minute period (unless otherwise specified)

TWA time-weighted average (long-term exposure limit): measured or calculated in relation to a reference period of 8 hours time-weighted average (unless otherwise specified)

Relevant DNELs/DMELs/PNECs and other threshold levels

Relevant DNELs of components of the mixture						
Name of sub-stance	CAS No	End-point	Threshold level	Protection goal, route of expos-ure	Used in	Exposure time
potassium 2-ethyl-hexanoate	3164-85-0	DNEL	16.79 mg/m ³	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/m ³	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-	3164-85-0	DNEL	1.19 mg/kg	human, oral	consumer (private	chronic - systemic

METALGUARD® A40N

 Version number: 6.0
 Replaces version of: 2022-04-21 (5)

Revision: 2026-03-13

Relevant DNELs of components of the mixture						
Name of substance	CAS No	Endpoint	Threshold level	Protection goal, route of exposure	Used in	Exposure time
hexanoate			bw/day		households)	effects
sodium nitrite	7632-00-0	DNEL	2 mg/m ³	human, inhalatory	worker (industry)	chronic - systemic effects
sodium nitrite	7632-00-0	DNEL	2 mg/m ³	human, inhalatory	worker (industry)	acute - systemic effects
Sodium 4(or 5)-methyl-1H-benzotriazolide	64665-57-2	DNEL	0.54 mg/kg bw/day	human, oral	consumer (private households)	acute - systemic effects
Sodium 4(or 5)-methyl-1H-benzotriazolide	64665-57-2	DNEL	98.7 mg/m ³	human, inhalatory	worker (industry)	chronic - systemic effects
Sodium 4(or 5)-methyl-1H-benzotriazolide	64665-57-2	DNEL	1.4 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects
Sodium 4(or 5)-methyl-1H-benzotriazolide	64665-57-2	DNEL	17.4 mg/m ³	human, inhalatory	consumer (private households)	chronic - systemic 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
potassium hydroxide	1310-58-3	DNEL	1 mg/m ³	human, inhalatory	worker (industry)	acute - systemic effects
potassium hydroxide	1310-58-3	DNEL	1 mg/m ³	human, inhalatory	consumer (private households)	acute - systemic effects
potassium hydroxide	1310-58-3	DNEL	1 mg/m ³	human, inhalatory	worker (industry)	chronic - local effects
potassium hydroxide	1310-58-3	DNEL	1 mg/m ³	human, inhalatory	worker (industry)	acute - local effects
potassium hydroxide	1310-58-3	DNEL	0.3 mg/m ³	human, inhalatory	consumer (private households)	chronic - local effects
potassium hydroxide	1310-58-3	DNEL	0.3 mg/m ³	human, inhalatory	consumer (private households)	acute - local effects

Relevant PNECs of components						
Name of substance	CAS No	Endpoint	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)

METALGUARD® A40N

Version number: 6.0
Replaces version of: 2022-04-21 (5)

Revision: 2026-03-13

Relevant PNECs of components						
Name of substance	CAS No	End-point	Threshold level	Organism	Environmental compartment	Exposure time
potassium 2-ethyl-hexanoate	3164-85-0	PNEC	1.06 mg/kg	terrestrial organisms	soil	short-term (single instance)
potassium 2-ethyl-hexanoate	3164-85-0	PNEC	85.4 mg/l	aquatic organisms	sewage treatment plant (STP)	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)
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)
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)

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

METALGUARD® A40N

Version number: 6.0

Revision: 2026-03-13

Replaces version of: 2022-04-21 (5)

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 (viscous)
Color	clear to amber
Odor	distinctive
Melting point/freezing point	not determined
Boiling point or initial boiling point and boiling range	>100 °C >212 °F
Evaporation rate	not determined
Flammability	non-combustible
Lower and upper explosion limit	LEL: UEL: not determined
Flash point	not applicable
Auto-ignition temperature	not relevant
Decomposition temperature	no data available
pH (value)	9.5 – 10.5
Kinematic viscosity	not determined

Solubility

Water solubility	miscible in any proportion
------------------	----------------------------

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

METALGUARD® A40N

Version number: 6.0
Replaces version of: 2022-04-21 (5)

Revision: 2026-03-13

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

Density and/or relative density

Density	1.045 – 1.085 g/cm ³ at 21.1 °C 1.045 – 1.085 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

This material is not reactive under normal ambient conditions.

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

Minimum storage temperature: 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

Harmful if swallowed.

- acute toxicity estimate (ATE)

Exposure route	ATE
Oral	853.3 mg/kg

METALGUARD® A40N

 Version number: 6.0
 Replaces version of: 2022-04-21 (5)

Revision: 2026-03-13

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 nitrite	7632-00-0	oral	100 mg/kg
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
potassium hydroxide	1310-58-3	oral	333 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 4(or 5)-methyl-1H-benzotriazolide	64665-57-2	oral	LD50	735 mg/kg	rat
Sodium 4(or 5)-methyl-1H-benzotriazolide	64665-57-2	dermal	LD50	>2,000 mg/kg	rabbit
potassium hydroxide	1310-58-3	oral	LD50	333 mg/kg	rat

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 $\geq 0.1\%$.

SECTION 12: Ecological information
12.1 Toxicity

Toxic to aquatic life with long lasting effects. Harmful to aquatic life with long lasting effects.

METALGUARD® A40N

 Version number: 6.0
 Replaces version of: 2022-04-21 (5)

Revision: 2026-03-13

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
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 (Er-Cx) 10%	32 mg/l	algae	72 h
potassium 2-ethylhexanoate	3164-85-0	growth (EbCx) 10%	231.2 mg/l	algae	72 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 (Desmodium subspicatus)	72 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 (Er-Cx) 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

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 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
Sodium 4(or 5)-methyl-1H-benzotriazolide	64665-57-2	EC50	>37.6 mg/l	daphnia magna	21 d

METALGUARD® A40N

Version number: 6.0
Replaces version of: 2022-04-21 (5)

Revision: 2026-03-13

Aquatic toxicity (chronic) of components of the mixture					
Name of substance	CAS No	Endpoint	Value	Species	Exposure time
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-benzotriazolide	64665-57-2	LOEC	37.6 mg/l	daphnia magna	21 d
Sodium 4(or 5)-methyl-1H-benzotriazolide	64665-57-2	growth (EbCx) 10%	0.97 mg/l	aquatic invertebrates	21 d

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 $\geq 0.1\%$.

12.6 Endocrine disrupting properties

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

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.

METALGUARD® A40N

Version number: 6.0
Replaces version of: 2022-04-21 (5)

Revision: 2026-03-13

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)

all ingredients are listed (ACTIVE) or exempt from listing

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)
potassium hydroxide	1310-58-3		1	1000 (454)
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

METALGUARD® A40N

 Version number: 6.0
 Replaces version of: 2022-04-21 (5)

Revision: 2026-03-13

- 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
Potassium hydroxide	1310-58-3				1.0 %
Sodium nitrite	7632-00-0				1.0 %

- Hazardous Substance List (NJ-RTK)

Name acc. to inventory	CAS No	Remarks	Classifications
potassium hydroxide (caustic potash)	1310-58-3		CO R1
2-ethylhexanoic acid (hexanoic acid, 2-ethyl-)	149-57-5		
sodium nitrite	7632-00-0		

Legend

 CO Corrosive
 R1 Reactive - First Degree

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

Name acc. to inventory	CAS No	Classification
POTASSIUM HYDROXIDE (K(OH))	1310-58-3	E
NITROUS ACID, SODIUM SALT	7632-00-0	E

Legend

E Environmental hazard

- Hazardous Substance List (RI-RTK)

Name acc. to inventory	CAS No	References
Caustic potash	1310-58-3	T, F
Lye (potassium)	1310-58-3	T, F
Potassium hydroxide	1310-58-3	T, F

Legend

 F Flammability (NFPA®)
 T Toxicity (ACGIH®)

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

METALGUARD® A40N

Version number: 6.0
Replaces version of: 2022-04-21 (5)

Revision: 2026-03-13

Category	Rating	Description
Flammability	0	material that will not burn under typical fire conditions
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	0	material that will not burn under typical fire conditions
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
ACGIH®	American Conference of Governmental Industrial Hygienists
ACGIH® 2025	From ACGIH®, 2025 TLVs® and BEIs® Book. Copyright 2025. Reprinted with permission. Information on the proper use of the TLVs® and BEIs®: http://www.acgih.org/tlv-bei-guidelines/policies-procedures-presentations/tlv-bei-position-statement
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

METALGUARD® A40N

Version number: 6.0
Replaces version of: 2022-04-21 (5)

Revision: 2026-03-13

Abbr.	Descriptions of used abbreviations
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 specified time interval
LEL	Lower explosion limit (LEL)
LHS	Lower hazard substance
LOEC	Lowest Observed Effect Concentration
Met. Corr.	Substance or mixture corrosive to metals
NFPA®	National Fire Protection Association (United States)
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
ppm	Parts per million
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
STEL	Short-term exposure limit
STOT SE	Specific target organ toxicity - single exposure
TLV®	Threshold Limit Values
TWA	Time-weighted average
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).

METALGUARD® A40N

Version number: 6.0
Replaces version of: 2022-04-21 (5)

Revision: 2026-03-13

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

Code	Text
H272	May intensify fire; oxidizer.
H290	May be corrosive to metals.
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.
H335	May cause respiratory 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.