

The safety data sheet complies with Commission Regulation (EU) 878/2020 of 18 June 2020 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) .

K3 i

Creation date	22nd October 2003	Version	15
Revision date	26th November 2022		

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier K3 i
Substance / mixture mixture

1.2. Relevant identified uses of the substance or mixture and uses advised against
Mixture's intended use

Corrosion inhibitor

The use descriptors

IS Use at industrial sites

PW Widespread use by professional workers

Mixture uses advised against

The product should not be used in ways other than those referred in Section 1.

1.3. Details of the supplier of the safety data sheet

Supplier

Name or trade name	NOVATO
Address	Uralská 770/6, Praha, 160 00 Czech Republic
Identification number (CRN)	62910370
VAT Reg No	CZ62910370
Phone	+420 233 339 688
E-mail	petr.johanides@novato.cz
Web address	www.novato.cz

Competent person responsible for the safety data sheet

Name	ABITEC
E-mail	info@abitec.cz

1.4. Emergency telephone number

European emergency number: 112

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification of the mixture in accordance with Regulation (EC) No 1272/2008

The mixture is not classified as dangerous according to Regulation (EC) No 1272/2008.

Most serious adverse physico-chemical effects

They are not known.

Most serious adverse effects on human health and the environment

Direct contact with the eye may slightly irritate the eyes (redness, itching, burning). Ingestion may cause nausea and abdominal pain. Avoid ingestion and contact with eyes. Ensure against confusion with drinks and food. The mixture is not classified as harmful to aquatic organisms. Contains components hazardous to the environment. Avoid release to soil, ground or surface water or sewers. Follow the instructions for use to avoid risks to people and the environment.

2.2. Label elements

none

Supplemental information

EUH210 Safety data sheet available on request.

2.3. Other hazards

Neither the mixture nor its components meet the criteria for persistent, bioaccumulative and toxic or highly persistent and highly bioaccumulative substances in accordance with Annex XIII, nor have they been included in the list drawn up in accordance with Article 59, paragraph 1, due to the content of endocrine disruptors, nor has it been determined as a substance with endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

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SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical characterization

Mixture.

Mixture contains these hazardous substances and substances with the highest permissible concentration in the working environment

Identification numbers	Substance name	Content in % weight	Classification according to Regulation (EC) No 1272/2008	Note
CAS: 532-32-1 EC: 208-534-8 Registration number: 01-2119460683-35	Sodium benzoate	<10	Eye Irrit. 2, H319 Specific concentration limit: Eye Irrit. 2, H319: C ≥ 10 %	
CAS: 29385-43-1 EC: 249-596-6 Registration number: 01-2119979081-35	Methyl-1H-benzotriazole	<2,5	Acute Tox. 4, H302 Repr. 2, H361d Aquatic Chronic 2, H411 Specific concentration limit: Repr. 2, H361: C ≥ 3 %	

Full text of all classifications and hazard statements is given in the section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

In the event of health problems or in case of doubt, consult a doctor and provide him with information from this safety data sheet. In case of life-threatening conditions, perform resuscitation. Place the unconscious person in a stable position and do not give anything by mouth. Avoid catching cold. Do not induce vomiting. In case of spontaneous vomiting, prevent inhalation of vomitus.

If inhaled

If inhaled, stop exposure, flush the oral cavity with water, breathe fresh air. If respiratory tract irritation develops, seek medical attention. If necessary (breathing or irregular breathing), perform artificial respiration.

If on skin

Wipe off the product, wash thoroughly with warm water, soap and treat with a regenerating cream. At contamination of clothing, remove clothing. Do not use solvents or thinners. If symptoms persist irritation, seek medical attention.

If in eyes

If the victim wears contact lenses, remove them if this is easy to do. Eyes wide open rinse with a moderate stream of plenty of clean lukewarm water, especially the area under the eyelids. Seek medical treatment.

If swallowed

Do not induce vomiting. Rinse your mouth with water, drink a glass of water. In case of spontaneous vomiting avoid inhaling vomit. Seek medical attention and present this safety data sheet.

4.2. Most important symptoms and effects, both acute and delayed

If inhaled

not available

If on skin

not available

If in eyes

Direct contact with the eye may slightly irritate the eyes (redness, itching, burning).

If swallowed

After ingestion and long-term inhalation exposure may cause nausea and abdominal pain.

4.3. Indication of any immediate medical attention and special treatment needed

In the case of the usual use of the mixture and following the instructions in the instructions for use, immediate medical assistance is not required. Special treatment is required if symptoms of a certain degree occur, according to the data in sections 4.1 and 4.2; is symptomatic.

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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

The mixture is not flammable, match the fire extinguishers to the surrounding fire (water spray, alcohol-resistant foam, CO₂, fire extinguisher).

Unsuitable extinguishing media

Full stream of water.

5.2. Special hazards arising from the substance or mixture

Thermal decomposition at high temperatures or in the event of a fire may result in dangerous decomposition products (CO_x, NO_x). Do not inhale thermal decomposition products.

5.3. Advice for firefighters

Protective equipment adapt the nature of the fire.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Prevent the entry of unauthorized persons, ensure an escape area. Ensure adequate ventilation of the workplace space. Avoid contact with skin and eyes - use personal protective equipment. Danger of slipping on spilled mixture.

6.2. Environmental precautions

Observe the usual environmental precautions. Avoid leakage into sewers, soil, surface and ground water. In case of leakage, inform the competent authorities of the state administration and the flow or sewerage manager.

6.3. Methods and material for containment and cleaning up

In case of a large leak, pump out the mixture. In case of a small leak, cover the mixture with a sorbent (universal sorbent, sand, earth), the contaminated mixture into a closable waste container, label it and dispose of according to sec. 13. Always use personal protective equipment for disposal. Contaminated wash the area with water.

If the package is damaged, transfer the contents to a new package and re-label properly.

6.4. Reference to other sections

See the Section 7, 8 and 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Ensure against contact with eyes and skin, use personal protective equipment according to sec. 8. On keep the workplace clean and tidy, follow the instructions in the user manual. Find out about the availability of drinking water

for providing first aid. Ensure against confusion with drinks and food, prevent ingestion.

Pay attention to the applicable safety and health regulations. Follow the principles of work hygiene with chemicals, do not eat, drink or smoke while working. Wash your hands before breaks, meals and after work warm water with soap.

7.2. Conditions for safe storage, including any incompatibilities

Store tightly closed in original packaging, in dry, cool and well-ventilated places protected from sources of sunlight. Avoid contact with strong oxidizing agents.

Content	Packaging type	Material of package
0,5 kg	can / tin	FE
1,6 kg	jerry can	HDPE

Storage temperature min 5 °C, max 40 °C

7.3. Specific end use(s)

not available

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SECTION 8: Exposure controls/personal protection

8.1. Control parameters

The mixture does not contain any constituents of national exposure limits specified in Annex 2, Government Decree 361/2007 Coll., As amended or European Union for Work Environment.

DNEL

Methyl-1H-benzotriazole					
Workers / consumers	Route of exposure	Value	Effect	Value determination	Source
Workers	Inhalation	21.2 mg/m ³	Chronic effects systemic		
Workers	Dermal	0.3 mg/kg bw/day	Chronic effects systemic		
Workers	Oral	0.01 mg/kg bw/day	Chronic effects systemic		

Sodium benzoate					
Workers / consumers	Route of exposure	Value	Effect	Value determination	Source
Workers	Inhalation	3 mg/m ³	Chronic effects systemic		
Workers	Inhalation	0.1 mg/m ³	Chronic effects local		
Workers	Dermal	62.5 mg/kg bw/day	Chronic effects systemic		
Workers	Oral	16.6 mg/kg bw/day	Chronic effects systemic		

PNEC

Methyl-1H-benzotriazole			
Route of exposure	Value	Value determination	Source
Microorganisms in sewage treatment	39.4 mg/l		
Water (intermittent release)	0.008 mg/l		
Marine water	20 µg/l		
Soil (agricultural)	18.7 µg/kg		
Freshwater sediment	0.117 mg/kg		
Sea sediments	0.292 mg/kg		
Water (regular leak)	0.086 mg/l		

Sodium benzoate			
Route of exposure	Value	Value determination	Source
Microorganisms in sewage treatment	10 mg/l		
Water (intermittent release)	0.13 mg/l		
Marine water	0.013 mg/l		
Soil (agricultural)	0.06 mg/kg		
Freshwater sediment	1.76 mg/kg		
Sea sediments	0.176 mg/kg		
Water (regular leak)	0.305 mg/l		

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8.2. Exposure controls

Ensure sufficient ventilation, or extraction of the working space. Observe hygiene measures for work with chemicals. Do not eat, drink or smoke while working. Wash before breaks, meals and after work hands with lukewarm water and soap.

Adapt personal protective equipment to the nature of the work.

Eye/face protection

Tight-fitting safety glasses if there is a risk of eye contact and during spray application.

Skin protection

Protective work clothing and footwear; remove contaminated clothing, wash before further use. Chemically resistant protective gloves (eg: material nitrile rubber, PVA). Be careful when choosing manufacturer's recommendations, the material must be impermeable and resistant to the components of the mixture. Before the first test for use at a specific workplace. Replace damaged gloves.

Respiratory protection

It is advisable to use a respirator against organic substances. Filter type AX.

Thermal hazard

Not Specified. Avoid heating the mixture and exposure to elevated temperatures.

Environmental exposure controls

Observe the usual environmental precautions. Avoid leakage into sewers, underground and surface water and soil.

More information

Ensure compliance with governmental regulation 361/2007 Coll., Laying down the conditions for the protection of health at work, as amended, and to fulfill the obligations contained therein.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	liquid
Colour	yellow
Odour	characteristic
Melting point/freezing point	data not available
Boiling point or initial boiling point and boiling range	100 °C
Flammability	The mixture is not flammable
Lower and upper explosion limit	data not available
Flash point	data not available
Auto-ignition temperature	data not available
Decomposition temperature	data not available
pH	9.25 (undiluted)
Kinematic viscosity	data not available
Solubility in water	data not available
Partition coefficient n-octanol/water (log value)	data not available
Vapour pressure	data not available
Density and/or relative density	
Density	1.15 g/cm ³ at 20 °C
Relative vapour density	data not available
Particle characteristics	data not available

9.2. Other information

Vapor pressure (at 20 °C): Methyl-1H-benzotriazole: 0.014 kPa

Volatile organic matter content: 0%

Explosive properties: The product does not pose a risk of explosion.

SECTION 10: Stability and reactivity

10.1. Reactivity

In normal conditions, the mixture does not show dangerous reactions.

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10.2. Chemical stability

The mixture is stable under normal environmental conditions, storage and handling.

10.3. Possibility of hazardous reactions

Unknown.

10.4. Conditions to avoid

Contact with strong oxidizing agents and substances incompatible with water.

10.5. Incompatible materials

Strong oxidizing agents, substances that react with water

10.6. Hazardous decomposition products

Under normal conditions, the mixture does not decompose. They can be formed by thermal decomposition at high temperatures
dangerous decomposition products (COx, NOx).

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

The mixture is not classified as dangerous in the sense of EC Regulation No. 1272/2008, as amended.

Acute toxicity

Based on the available data, the classification criteria are not met.

Methyl-1H-benzotriazole					
Route of exposure	Parameter	Value	Exposure time	Species	Sex
Oral	LD ₅₀	720 mg/kg		Rabbit	
Dermal	LD ₅₀	>2000 mg/kg		Rabbit	

Sodium benzoate					
Route of exposure	Parameter	Value	Exposure time	Species	Sex
Oral	LD ₅₀	>2000 mg/kg		Rat	
Inhalation	LD ₅₀	>12.2 mg/l	4 hours	Rat	
Dermal	LD ₅₀	>2000 mg/kg		Rabbit	

Skin corrosion/irritation

Based on the available data, the classification criteria are not met.

Serious eye damage/irritation

Based on the available data, the classification criteria are not met.

Respiratory or skin sensitisation

Based on the available data, the classification criteria are not met.

Germ cell mutagenicity

Based on the available data, the classification criteria are not met.

Carcinogenicity

Based on the available data, the classification criteria are not met.

Reproductive toxicity

Based on the available data, the classification criteria are not met. Contents of the classification folder reproductive toxicity, category 2, is below the concentration limit for the given category.

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Toxicity for specific target organ - single exposure

Based on the available data, the classification criteria are not met.

Toxicity for specific target organ - repeated exposure

Based on the available data, the classification criteria are not met.

Aspiration hazard

Based on the available data, the classification criteria are not met.

11.2. Information on other hazards

In the case of sensitive individuals, it may slightly irritate the eyes and skin (redness, itching, burning. Ingestion may cause nausea and abdominal pain.
It does not contain substances causing disruption of the endocrine system.

SECTION 12: Ecological information

12.1. Toxicity

No data available.

Acute toxicity

Methyl-1H-benzotriazole				
Parameter	Value	Exposure time	Species	Environment
LC ₅₀	180 mg/l	48 hours	Fish	
EC ₅₀	8.58 mg/l	48 hours	Invertebrates (Daphnia magna)	
EClethal	53 mg/l	48 hours	Algae	

Sodium benzoate				
Parameter	Value	Exposure time	Species	Environment
LC ₅₀	484 mg/l	96 hours	Fish	
NOEC	10 mg/l		Fish	
EC ₅₀	>100 mg/l	48 hours	Invertebrates (Daphnia magna)	
EC ₅₀	>100 mg/l	24 hours	Algae	

12.2. Persistence and degradability

The mixture is not easily degradable.

12.3. Bioaccumulative potential

Low.

12.4. Mobility in soil

not available

12.5. Results of PBT and vPvB assessment

The mixture does not contain substances from the PBT and vPvB groups according to Annex XIII of the REACH Regulation, as amended.

12.6. Endocrine disrupting properties

Substances with these properties in accordance with the criteria set out in Commission Regulation (EU) 2017/2100 or (EU) 2018/605 are not included.

12.7. Other adverse effects

not available

SECTION 13: Disposal considerations

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13.1. Waste treatment methods

Hand over for disposal to an authorized person for special treatment (e.g. in a hazardous waste incinerator waste). Do not flush down the drain!
Dispose of mixture residues in accordance with local waste management regulations.

Waste management legislation

Act No. 477/2001 Coll., On Packaging, as amended. Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste, as amended.

Waste type code

16 05 09 discarded chemicals other than those mentioned in 16 05 06, 16 05 07 or 16 05 08

Packaging waste type code

15 01 02 plastic packaging

SECTION 14: Transport information

14.1. UN number or ID number

not subject to transport regulations

14.2. UN proper shipping name

not relevant

14.3. Transport hazard class(es)

not relevant

14.4. Packing group

not relevant

14.5. Environmental hazards

not relevant

14.6. Special precautions for user

not available

14.7. Maritime transport in bulk according to IMO instruments

not relevant

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Parliament and of the Council of 18th December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing the European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No. 793/93 and Commission Regulation (EC) No. 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, as amended. COMMISSION REGULATION (EU) 2020/878 amending Annex II to Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH). Commission Delegated Regulation (EU) 2021/849 of 11 March 2021 amending, for the purposes of adapting to technical and scientific progress, Part 3 of Annex VI to Regulation (EC) No 1272/2008 of the European Parliament and of the Council on classification, labeling and packaging of substances and mixtures. REGULATION (EC) No 648/2004 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 31 March 2004 on detergents, as amended. Commission Regulation (EU) No 2015/830 of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorization and Restriction of Chemicals.

15.2. Chemical safety assessment

No chemical hazard assessment was performed for this mixture.

SECTION 16: Other information

A list of standard risk phrases used in the safety data sheet

H302	Harmful if swallowed.
H319	Causes serious eye irritation.
H361	Suspected of damaging fertility or the unborn child.
H361d	Suspected of damaging the unborn child.
H411	Toxic to aquatic life with long lasting effects.

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A list of additional standard phrases used in the safety data sheet

EUH210 Safety data sheet available on request.

Other important information about human health protection

The mixture should not be used for any purpose other than that for which it is intended (see point 1.2). Because the supplier can not control the specific conditions of use of the mixture, it is the responsibility of the user to adapt the prescribed warnings to local laws and regulations. Safety information describes the product in terms of safety and can not be considered as technical product information.

Key to abbreviations and acronyms used in the safety data sheet

ADR	European agreement concerning the international carriage of dangerous goods by road
BCF	Bioconcentration Factor
CAS	Chemical Abstracts Service
CLP	Regulation (EC) No 1272/2008 on classification, labelling and packaging of substance and mixtures
EC	Identification code for each substance listed in EINECS
EC ₅₀	Concentration of a substance when it is affected 50% of the population
EINECS	European Inventory of Existing Commercial Chemical Substances
EmS	Emergency plan
EU	European Union
EuPCS	European Product Categorisation System
IATA	International Air Transport Association
IBC	International Code For The Construction And Equipment of Ships Carrying Dangerous Chemicals
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods
IMO	International Maritime Organization
INCI	International Nomenclature of Cosmetic Ingredients
ISO	International Organization for Standardization
IUPAC	International Union of Pure and Applied Chemistry
LC ₅₀	Lethal concentration of a substance in which it can be expected death of 50% of the population
LD ₅₀	Lethal dose of a substance in which it can be expected death of 50% of the population
log K _{ow}	Octanol-water partition coefficient
NOEC	No observed effect concentration
NPK	Maximum admissible concentration
OEL	Occupational Exposure Limits
PBT	Persistent, Bioaccumulative and Toxic
PEL	Permissible Exposure Limit
ppm	Parts per million
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Agreement on the transport of dangerous goods by rail
UN	Four-figure identification number of the substance or article taken from the UN Model Regulations
UVCB	Substances of unknown or variable composition, complex reaction products or biological materials
VOC	Volatile organic compounds
vPvB	Very Persistent and very Bioaccumulative

Acute Tox.	Acute toxicity
Aquatic Chronic	Hazardous to the aquatic environment (chronic)
Eye Irrit.	Eye irritation
Repr.	Reproductive toxicity

Training guidelines



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According to § 103 and § 104 of Act No. 262/2006 Coll., The Labor Code, as amended. Inform the personnel about the recommended ways of use, mandatory protective equipment, first aid and prohibited ways of handling the product.

Recommended restrictions of use

not available

Information about data sources used to compile the Safety Data Sheet

Manufacturer data and toxicological databases.

The changes (which information has been added, deleted or modified)

Adaptation of BL updated Annex II of the REACH Regulation as amended by Commission Regulation (EU) 2020/878.

Statement

The safety data sheet contains the data needed to ensure safety and health at work and environmental protection. These data correspond to the current state of knowledge and experience and are in accordance with applicable legal regulations. They can not be considered as a guarantee of the suitability and usability of the product for a specific application. The user is responsible for the treatment under existing laws and regulations.

