

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) .

DEFOS

Creation date	22nd October 2003	Version	15
Revision date	21st December 2022		

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

1.1. Product identifier DEFOS
Substance / mixture mixture

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

Pipeline leak detection compound

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

The mixture does not show adverse physico-chemical effects. Thermal decomposition at high temperatures can release dangerous gases. Avoid inhalation of decomposition products.

Most serious adverse effects on human health and the environment

Direct eye contact may cause mild short-term eye irritation. Prolonged or repeated contact with the skin may cause drying and cracking of the skin. Long-term inhalation of the sprayed mixture can lead to headaches. Ingestion may cause intoxication, nausea, abdominal pain. Avoid contact with eyes and skin and mucous membranes. Avoid ingestion. Ensure against confusion with drinks. Follow the instructions for use to avoid risks to humans and the environment. The full wording of the classification and H phrases is given in Sect. 16 of this safety data sheet.

2.2. Label elements

none

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
Index: 603-002-00-5 CAS: 64-17-5 EC: 200-578-6	ethanol	5-10	Flam. Liq. 2, H225 Eye Irrit. 2, H319 Specific concentration limit: Eye Irrit. 2, H319: C ≥ 50 %	1

Notes

1 A substance for which exposure limits are set.

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

With normal use and compliance with the instructions in the user manual, there is no risk to health, and therefore medical assistance is not necessary. In the event of health problems or in case of doubt, consult a doctor and provide him with the 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

There is no risk of inhalation with normal use. If inhalation occurs, leave the area, rinse the oral cavity with water, breathe fresh a

If on skin

If the recommended method of use is followed, first aid is not necessary. Wipe off the product, wash thoroughly with warm water and soap. Alternatively, treat with a regenerating cream.

If in eyes

If the victim wears contact lenses, remove them. Flush eyes wide open with plenty of clean, lukewarm water, especially the area under the lids. In case of difficulties, seek medical treatment.

If swallowed

Do not induce vomiting. Rinse your mouth with water, drink several glasses of water. Seek medical attention and present this safety data sheet.

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

If inhaled

Long-term inhalation of the sprayed mixture can lead to headaches.

If on skin

Prolonged or repeated contact with the skin may cause drying and cracking of the skin.

If in eyes

Direct eye contact may cause slight short-term eye irritation (irritation, redness, burning, tearing, pain).

If swallowed

Ingestion may cause intoxication, nausea, 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

Mixture is not flammable, fire extinguisher adapted to fire in the area.

Unsuitable extinguishing media

Not defined.

5.2. Special hazards arising from the substance or mixture

Thermal decomposition at high temperatures may release dangerous decomposition products. Do not inhale thermal decomposition products.

5.3. Advice for firefighters

Adapt protective equipment to the nature of the fire (self-contained breathing apparatus, complete full-body protective suit, etc.). Prevent the release of contaminated extinguishing agent into drains, soil and water sources.

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 sufficient ventilation of the work area, prevent long-term inhalation of vapors or sprayed mixture. Avoid contact with eyes and prolonged or repeated contact with skin - use personal protective equipment.

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 larger leak, pump out the mixture. In the event of a minor leak, cover with a suitable non-flammable sorbent (sand, diatomaceous earth, soil, universal sorbent, etc.). Place the used sorbent in a closable waste container and dispose of it according to local regulations. Wash the contaminated area with plenty of water, do not use solvents.

6.4. Reference to other sections

See the Section 7, 8 and 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Follow the recommendations given in the instructions for use. Ensure against contact with the eyes, prevent long-term inhalation of vapors or sprayed mixture and prolonged or repeated contact with the skin, use personal protective equipment according to sec. 8. Ensure against confusion with drinks, prevent ingestion. Protect from heat sources, do not handle open flames.

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

7.2. Conditions for safe storage, including any incompatibilities

Store tightly closed in the original packaging at a temperature between 5 - 50 °C. Store away from heat sources, do not smoke. Store away from food, drink and feed. Follow the directions on the label.

Content	Packaging type	Material of package
25 l	jerry can	PE

Storage temperature min 5 °C, max 50 °C

7.3. Specific end use(s)

not available

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.

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Czech Republic

Government Regulation 330/2023 Coll.

Substance name (component)	Type	Value
ethanol (CAS: 64-17-5)	PEL	1000 mg/m ³
	PEL	522 ppm
	NPK-P	3000 mg/m ³
	NPK-P	1566 ppm

8.2. Exposure controls

Avoid contact with the eyes, long-term contact with the skin and inhalation of the sprayed mixture. Observe hygienic measures for working with chemicals. Do not eat, drink or smoke while working. Wash your hands with lukewarm water and soap before breaks, meals and after work. Adapt personal protective equipment to the nature of the work.

Eye/face protection

Safety glasses, face shield if necessary.

Skin protection

Not necessary. Remove contaminated clothing and wash before re-use. Safety gloves. When choosing, follow the manufacturer's recommendations and verify the suitability of the gloves before first use in a specific workplace. Replace worn gloves.

Respiratory protection

Not necessary. If limit values are exceeded, use appropriate respiratory protection.

Thermal hazard

not available

Environmental exposure controls

Observe usual measures for protection of the environment, see Section 6.2.

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	green
Odour	characteristic
Melting point/freezing point	data not available
Boiling point or initial boiling point and boiling range	100 °C
Flammability	The product is non-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	6 (undiluted)
Kinematic viscosity	data not available
Solubility in water	soluble
Partition coefficient n-octanol/water (log value)	data not available
Vapour pressure	data not available
Density and/or relative density	data not available
Relative vapour density	data not available
Particle characteristics	data not available

9.2. Other information

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Density and/or relative density (at 20 °C): 950 - 1000 kg/m³
VOC content: < 10%
Total carbon content: 0.055 kg/kg
Explosive properties: The mixture does not show explosive properties.
Oxidizing properties: The mixture is not classified as oxidizing.

SECTION 10: Stability and reactivity

10.1. Reactivity

When used in the standard way, there is not any dangerous reaction with other substances.

10.2. Chemical stability

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

10.3. Possibility of hazardous reactions

The mixture does not show dangerous reactions if the instructions for use are followed. Danger of exothermic reaction in contact with strong acids, bases and oxidizing agents.

10.4. Conditions to avoid

High temperatures, overheating, contact with open fire. Protect from frost.

10.5. Incompatible materials

Strong oxidizing agents, strong acids and bases.

10.6. Hazardous decomposition products

Under normal conditions, the mixture does not decompose. Thermal decomposition at high temperatures can release dangerous decomposition products (CO_x, NO_x, thick, heavy smoke, etc.)

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

The mixture is not classified as acutely toxic by any way of exposure.

ethanol					
Route of exposure	Parameter	Value	Exposure time	Species	Sex
Oral	LD ₅₀	7060 mg/kg		Rat	
Dermal	LD ₅₀	20000 mg/kg		Rabbit	
Inhalation	LC ₅₀	124.7 mg/l	4 hours	Rat	

Skin corrosion/irritation

Based on available data the classification criteria are not met.

Serious eye damage/irritation

Based on available data the classification criteria are not met.

Respiratory or skin sensitisation

Based on available data the classification criteria are not met.

Germ cell mutagenicity

Not likely

Carcinogenicity

Not likely

Reproductive toxicity

Not likely

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Toxicity for specific target organ - single exposure

Based on available data the classification criteria are not met.

Toxicity for specific target organ - repeated exposure

The mixture does not contain substances classified as toxic upon repeated exposure.

Aspiration hazard

Based on available data the classification criteria are not met.

11.2. Information on other hazards

It does not contain substances causing disruption of the endocrine system. If the concentrated mixture hits the eye directly, it can irritate the eyes (redness, tearing, burning, pain). Prolonged or repeated skin contact may cause skin dryness.

SECTION 12: Ecological information

12.1. Toxicity

The ecotoxic effects of the mixture were not assessed. Observe the usual environmental precautions.

Acute toxicity

ethanol				
Parameter	Value	Exposure time	Species	Environment
LC ₅₀	8140 mg/l	48 hours	Fish (<i>Leiciscus idus</i>)	
LC ₅₀	14.2 g/l	96 hours	Fish (<i>Pimephales promelas</i>)	
EC ₅₀	9268-14221 mg/l	48 hours	Invertebrates (<i>Daphnia magna</i>)	

12.2. Persistence and degradability

Undetermined

12.3. Bioaccumulative potential

Unimportant

12.4. Mobility in soil

The mixture is soluble in water, mobile in soil and water.

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

13.1. Waste treatment methods

If possible, regenerate the mixture. In other cases, hand over to an authorized person for disposal (disposal at a secured landfill or in a hazardous waste incinerator). Dispose of mixture and packaging residues in accordance with applicable local waste disposal regulations. The waste generator is responsible for sorting and removing waste. Uncontaminated packaging can be sent for recycling to a combined waste collection system.

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.



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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

Transport in packages that match the properties of the mixture. Observe the prescribed marking for cargo.

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 ammended. 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.

More information

This information only indicates the basic regulations listed in this Safety Data Sheet. Please note the possible existence of additional regulations supplementing these Regulations. We refer to all applicable national, international and local regulations and regulations.

SECTION 16: Other information

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

H225 Highly flammable liquid and vapour.

H319 Causes serious eye irritation.

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

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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 Kow	Octanol-water partition coefficient
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

Eye Irrit.	Eye irritation
Flam. Liq.	Flammable liquid

Training guidelines

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



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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.

