

	MATERIAL SAFETY DATA SHEET pursuant to Regulation of European Parliament and Council of the European Union (ES) no. 1907/2006 (REACH) amended by Regulation of Commission (EU) no. 2020/878	Page 1/14
	Product name:	Issued on: 31.3.2006
	Vulcanizing fluid F	Revision number: 7
		Revised on: 14.12.2022

SECTION 1. PRODUCT NAME AND COMPANY IDENTIFICATION

1.1. Identification of the substance or preparation

Commercial name	Vulcanizing fluid F
UFI code	3600-T0W4-700Y-4XEU
CAS number	none (a preparation)
EC (EINECS) number	none
Index number	none
Other names of the substance	none

1.2. Use of the substance or preparation	The preparation is used in repairs of tyres. The preparation is used only for purposes in accordance with instructions.
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1.3. Identification of manufacturer, importer, first distributor or distributor

Manufacturer:	Ferdus, s.r.o.
Address	J.Fučíka 699, 768 11 Chropyně, Czech Republic
Phone	+420 577 103 566
Fax	+420 577 103 566
E-mail of the competent person responsible for the Material Safety	info@ferdus.cz ; www.ferdus.cz

1.4. Emergency phone number	Toxicology Information Centre in Prague Na Bojišti 1, 128 08 Praha 2 Czech Republic Phone: +420 224 919 293
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SECTION 2. HAZARD IDENTIFICATION

2.1 Chemical characteristics	<u>Pursuant Regulation (EC) No 1272/2008 of the European Parliament and of the Council (CLP):</u> Product classified as hazardous.
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Flam. Liq. 2: Flammable liquid, cat. 2
H225 Highly flammable liquid and vapour

Skin Irrit. 2: Skin corrosion / irritation, cat. 2
H315 Causes skin irritation


STOT SE 3: Toxicity specific target organ (central nervous system), category 3
H336 May cause drowsiness or dizziness

Asp. Tox. 1: Aspiration hazard, category 1
H 304 May be fatal if swallowed and enters airways

Aquatic Chronic 2: Hazardous for aquatic environment (chronic), cat. 2
H 411 Toxic to aquatic life with long lasting effects

2.2 Substance classification:

Designation pursuant to Regulation (EC) No. 1272/2008 of European Parliament and Council (CLP):

Signal word	Dangerous
Symbol:	

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Additional information on the label	Not specified
Contains: (information which must be listed on the label)	Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclic, <5% n-hexane
H-phrases: (The hazard statements):	H225 Highly flammable liquid and vapour. H315 Causes skin irritation H304 May be fatal if swallowed and enters airways. H336 May cause drowsiness or dizziness. H411 Toxic to aquatic life with long lasting effects.
P-phrases: (Precautionary statements)	P210 Keep away from heat/sparks/open flames/hot surfaces - No smoking. P280 Wear protective gloves/protective clothing/eye protection/face protection. P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. P403+P233 Store in a well-ventilated place. Keep container tightly closed. P201 Obtain special instructions before use. P501 Dispose of contents/container to state regulations.

Note to information on the label: H, EUH and P phrases may be quoted without their numerical designation on the label.

2.3 Other hazards

Results of PBT and vPvB: the product doesn't satisfy the criteria for classification as PBT or vPvB.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Not filled in.

3.2 Mixtures

Vulcanizing fluid F is a solution of a rubber compound in liquid hydrocarbons predominantly of a paraffinic character.

The product contains hazardous substances for health and environment as follows

Chemical name	Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclic, <5% n-hexane	Cyclohexane	n-Hexane
Content % wt.	84	10*	<5*
CAS number		110-82-7	110-54-3
EC number	921-024-6	203-806-2	203-777-6
Registration number	01-2119486291-36		
Classification pursuant to 1272/2008/ES (CLP)	Aquatic Chronic 2 H411, Asp. Tox. 1 H304, Flam. Liq. 2 H225, STOT SE 3 H336, Skin Irrit. 2 H315	Aquatic Acute 1 H400 (M factor 1), Aquatic Chronic 1 H410 (M factor 1), Asp. Tox. 1 H304, Flam. Liq. 2 H225, STOT SE 3 H336, Skin Irrit. 2 H315	Flam. Liq. 2, Repr. 2, Asp. Tox. 1, STOT RE 2, Skin Irrit. 2, STOT SE 3, Aquatic Chronic 2; H225 H361f *** H304 H373 ** H315 H336 H411
Specific concentration limit or multiplication factor	Not specified	Not specified	STOT RE 2; H373: C ≥ 5 %
Acute toxicity estimation			

* impurities related to the folder no. 1

** can not ruled out another path of exposure

*** Reproductive toxicity: additional letters specify whether there is fetal toxicity (d) or reproductive toxicity abilities (f)

Notes:

The full text of the abbreviations and H phrases is given in section. 2 or 16.

These substances have set the highest permissible hygienic limits in the work environment - see sec. 8.

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SECTION 4. FIRST AID MEASURES / FIRST AID INSTRUCTIONS

4.1 Description of first aid

Are showing health problems or in case of doubt or accident seek medical help and give doctors information on the safety data sheet. In all cases keep the victim of mental rest and warm. If leakage occurs in a confined space is necessary to ensure thorough ventilation and turn off the electrical current. Remove all possible sources of ignition. In a life threatening condition first perform CPR victim and seek medical advice.

The victim is not breathing: is necessary to immediately perform artificial respiration.

Cardiac arrest: is necessary to immediately begin an indirect heart massage.

Unconsciousness: it is necessary to store and transport the victim in stable side position.

When is the first degree burns (painful redness) and when is the second degree burns (painful blisters) is important affected areas cool under running cold water. In the third degree burns (blackening, crumbling pale skin usually without pain) affected areas NOT cool just cover up with a clean cloth.

4.1.1 First aid measures/first aid instructions

When inhaled

Move victim to fresh air. If was clothing contaminated by product change his clothing. Ensure the victim against hypothermia. Do not let the victim to walk! During problems with breathing secure supply of oxygen. Obtain medical treatments whereas frequent necessity for further monitoring for at least 24 hours.

After skin contact

Remove the contaminated clothing and footwear. Rinse the affected skin with warm water. If there was no injury to the skin it is advisable to use soap or suds or shampoo. In case of persistent difficulties, consult a doctor.

After eye contact

If victim wear contact lenses remove them immediately. Flush the eyes with copious quantities of clean water for at least 15 minutes until the irritation has subsided. If the eye irritation persists seek medical attention.

After ingestion

Do not induce vomiting. If the affected person vomits prevent him/her to breathe in the vomits into the lungs (risk of lung damage)! Obtain medical attention due to the frequent need for further monitoring for at least 24 hours. The original packaging with label or MSDS of the substance with you.

4.1.2 Other information

- Immediate medical attention after ingestion.
- In the case of inhalation is recommended exposed person into the fresh air.
- Remove contaminated clothing.
- Recommendation protective equipment persons who provide first aid: Voting in the circumstances of the emergency.

4.2 The most acute and delayed symptoms and effects:

Inhaled

It causes headache, nausea, vomiting, impaired consciousness.

Skin contact

It causes redness, irritation.

Eye contact

Slightly irritation.

Ingestion

It causes faults of consciousness, impaired coordination.

4.3 Instruction of immediate medical help and special treatment

There is no specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

SECTION 5. FIRE FIGHTING MEASURES

5.1 Extinguishing media

Suitable: extinguishing powder, carbon dioxide, sand

Only trained staff : foam, air foam.

Unsuitable: Direct water stream. After direct water stream to hot liquids may cause to rapid steam generation or explosion.

5.2 Special hazards

Carbon and sulphur oxides and other products of incomplete burning (smoke, soot) are produced during burning. Avoid the inhalation of combustion products.

The fumes mixed with air form an explosive mixture, which is heavier than air, it can cover large distances and accumulate in low lying areas where it can ignite and flash back. Cover with the product may rupture in case of fire.

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5.3 Protective equipment for firemen

Complete protective clothing. The fire fighters must wear a self contained breathing apparatus. Tools and outfit must be made of a non-sparking material and must not produce electric charge.

Extinguishing water which has been contaminated by products, dispose in accordance with the local regulations. If possible, remove material from the fire area. Cool containers with water spray or mist. Isolate fire area and close the space to prevent of intrusion an unauthorized persons.

SECTION 6. SUBSTANCE OR PREPARATION ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protections and emergency procedures

6.1.1 Measures for workers except workers in case of emergency Restrict access for unauthorized persons into the endangered area until the end of the emergency.

6.1.2 Measures for workers in case of emergency Must be prevented to direct contact with the product. Avoid contact with skin and eyes. Don't breathe gas / fumes / vapor / spray. Use personal protective equipment. In a closed space ensure thorough ventilation, switch off electric equipment.

Remove flammable materials (wood, paper, oil, etc.) from the hazardous material. Remove all possible sources of ignition. Don't smoke and don't use the naked flames.

In case of fluid of greater amount:

Use explosion-proof lamps and nonsparking tools.

The leak place mark (by eg. Tape or hazard symbols) and insulate. Close or seal the leak place to avoid fluids leakage. Restrict access for unauthorized persons into the endangered area. Notify the local center (police, firefighters) about the crash. Stand on the opposite side the wind.

6.2 Environmental precautions

In case of large leaks:

Prevent spilled solution to environment, enter public sewerage, water sources and soil.

Gases / vapors / fumes shrink by water sprayer. Use all possibilities for isolation or sealing of the accident source.

Prevent further spreading of the solution in the environment by enclosing the accident site and using a suitable absorption material such as PP fibre, VAPEX, etc. If the product came into the water, soil or sewerage inform an authorities dealing with the protection of the environment.

6.3 Cleaning up and disposal methods and materials:

The spilled product is saturated in a suitable absorption material (special preparations, vapex, diatomaceous earth, dry sand or earth). The modified product must be enclosed in container of hazardous waste. In the event of a small leakage wipe the affected product with a damaged packaging and place into a bin intended for the appropriate kind of waste and dispose of it. Mechanically wipe the affected place with a suitable absorption material. Dispose also the contaminated cleaners and mark it as hazardous waste.

6.4 Links to other section

Personal protective equipment – section 8.

Waste disposal – section 13.

SECTION 7. HANDLING AND STORAGE

7.1 Handling instructions

7.1.1 Specific recommendations

At work is not allowed to drink eat and smoke and it is necessary to maintain personal hygiene. Use personal protective equipment (see sec.8). Ensure good ventilation of the workplace. Do not breathe gas, fumes, vapors aerosols. Avoid contact with skin and eyes.

The workplace must be kept clean and exits must be unobstructed.

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A device which is used for handling the product in large quantities, they must be well sealed and equipped with fire extinguishing substance for immediate intervention in case of fire.

Advice on protection against fire and explosion

Comply all fire-fighting measures (no smoking, no work with naked flames and remove all possible sources of ignition). Storage areas must meet the requirements of fire safety and electrical equipment comply with the applicable regulations. Package, including an empty package, can contain vapors. Do not cut, drill, grind, weld or perform similar operations on empty containers or in their closeness.

7.1.2 Advice on general hygiene at work

Observe basic hygiene rules: Do not eat, drink or smoke at work after each interruption or termination wash hands with water. Use protective equipment in accordance with the data in section 8.

7.2 Conditions for safe storage

Requirements for storage areas and containers

Store in a clean, dry, well-ventilated place. Store in tightly closed containers. Store away from: sources of ignition (open flames, sparks or hot surfaces) explosive substances strong oxidizing agents

Advice on storage

Store away from: food and dring, feed. Incompatible substances /materials: strong oxidizing agents (peroxides, chromates, chlorates, perchlorinated compounds, liquid oxygen, nitrates).

7.3 Specific end use

The product is designed to work on repairs tires.

SECTION 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

8.1 Control parameters

They are governed by the Government Decree No. 361/2007 (Collection of Laws), which lays down conditions for health protection at work, Annex no. 2

Substance	CAS number	PEL	NPK-P	Notes
		mg.m⁻³		
Gasolines (technical mixture of hydrocarbons)	---	400	1000	
n-Hexan	110-54-3	70	200	I, D, P
Cyclohexane	110-82-7	700	2000	I

Notes:

D - penetration of the substance through the skin is significantly applied during exposure.

I - irritates mucous membranes (eyes, respiratory tract) resp. skin.

P - serious late effects cannot be ruled out for the substance.

Derived No-Effect Level (DNEL) / Derived minimum-Effect Level (DMEL)

Worker

Substance name	skin	inhalation
Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclic, <5% n-hexane	773 mg/kg bw/day DNEL, Chronic exposure, Systemic effects	2035 mg/m ³ DNEL, Chronic exposure, Systemic effects

Consumer

Substance name	skin	inhalation	oral
Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclic, <5% n-hexane	699 mg/kg bw/day DNEL, Chronic exposure, Systemic effects	608 mg/m ³ DNEL, Chronic exposure, Systemic effects	699 mg/kg bw/day DNEL, Chronic exposure, Systemic effects

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Note: The derived no-effect level (DNEL) is the estimated safe exposure level, which is derived from toxicological data in accordance with specific guidelines under the European REACH Regulation. For the same chemical, the DNEL may differ from the occupational exposure limit (OEL). The OEL may be recommended by an individual company, government regulator, or expert organization such as the Scientific Committee on Occupational Exposure Limits (SCOEL) or the American Conference of Governmental Industrial Hygienists (ACGIH). OELs are considered safe exposure levels for a typical workplace worker in 8-hour shifts, 40 hours per week, as a time-weighted average (TWA) or as a 15-minute short-term exposure limit (STEL). Although OELs are considered health protection, they are derived from a process other than REACH.

ESTIMATED NON-ADVERSE CONCENTRATION (PNEC)

Substance name	Water (drinking water)	Water (sea water)	Water (occasional leakage)	Sewage treatment plant	Sediment	Soil	Oral (secondary poisoning)
Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclic, <5% n-hexane	NA	NA	NA	NA	NA	NA	NA

In the case of hydrocarbon UVCB substances, the PNEC value is not determined or used for risk assessment calculations. Therefore, no PNEC values are listed in the table above.

8.2 Exposure limitation

Observe basic hygiene rules: Do not eat, drink or smoke at work after each interruption or termination wash hands with water. Prevent contamination of the skin and eyes.

8.2.1 Occupational exposure control

In handling provide ventilation either general or local exhaust ventilation to ensure compliance with pollutant concentrations in the air are below permissible limits.

8.2.2 Individual protection measures including personal protective equipment

Personal protective equipment

Eye and face protection

In the case of handling larger quantities or refilling use tightly tight safety glasses. / Face shield. (EN 166).

Skin protection – hand protection

Protective gloves. The glove material must be resistant to degreasing solvents. (EN 240 EN 374) preferred material: nitrile (Break through time:> 480 min.). Protective hand cream.

Skin protection – other protection

When choosing a glove for a particular application should take into account : relevant factors; among others, as well as other chemicals with which it can cor into contact physical requirements (protection against cuts and punctures, dexteri thermal protection), potential body reactions to glove materials, instructions at specifications glove supplier. With repeated use of gloves is being taken off clean. Protective clothing and shoes.

Respiratory protection

During a disaster, fire high concentration, use protective clothing and footwear in antistaticperformance.

Under normal conditions of use of the product with adequate ventilation is not necessary. At concentrations exceeding the limit values or insufficient ventilation, wear a protective mask with a filter against organic vapors and aerosols.

Type: A (EN 141)

When accidents, fires high concentrations wear self-contained breathing apparatus.

Thermal hazard

Flammable product.

8.2.3 Environmental exposure controls

Prevent against expansion of large amounts of spilled product into the environment and entering into soil, sewers, underground and surface waters.

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SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information about main physical and chemical properties

Data for:

Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclic, <5% n-hexane

a) Substance state	liquid
b) Colour	clear, yellowish
c) Odour	Typical gasoline
d) Melting point / freezing point	-20 °C
e) Boiling point or initial boiling point and boiling point range	89 – 107 °C
f) Flammability	Highly flammable liquid
g) Lower and upper explosive or flammable limits:	1,1/7 volume %
h) Flash point (°C):	- 9 °C
i) Autoignition temperature	268°C
j) Thermal decomposition	Not technically possible
k) pH	
l) Kinematic viscosity	0.6 cSt (0.7 mm ² /s) at 20°C
m) Solubility	insignificant
n) Partition coefficient n-octanol / water (logarithmic value)	Log Pow > 4 [estimated]
o) Vapour pressure	6 kPa (45 mm Hg) při 20°C
p) Density and / or relative density	720 kg/m ³ ; 0.72 (relative to water) at 15°C
q) Relative vapour density	3.3 at 101 kPa (air = 1)
r) Particle characteristics (solids)	Not specified
Evaporation rate	5 (n-butyl acetate = 1)
Explosive properties	Not specified
Oxidising properties	Does not have

9.2. Other information

Surface tension	≤ 35 mN/m
Content VOC	84 % of weight (0.84 kg/kg of product)
Content TOC	~ 65 kg/1 kg of product
9.2.1 Information on physical hazard classes	Not applicable

9.2.2 Other safety characteristics	Not applicable
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Comment.:

„Not applicable“: information is not relevant to the product

„Not established“: information is not available

SECTION 10. INFORMATION ON STABILITY AND REACTIVITY

10.1 Reactivity Data not available.

10.2 Chemical stability Under recommended storage and handling of the product is stable
 Conditions to avoid: Concentrations within the explosion limits, high temperatures ignition sources.

10.3 Possibility of hazardous reactions Vapours may form explosive mixtures with air.
 Dangerous reactions with: oxidizing agents. Risk of fire.
 Incompatible substances / materials: Strong oxidizing reagent (peroxides, chromates, chlorates, perchlorinated compounds, liquid oxygen, nitrates).

10.4 Conditions to avoid Under recommended storage and handling of the product is stable.
 Conditions to avoid: Concentrations within the limits of explosion, high temperatures, ignition sources.
 Vapours may form with air explosive mixtures.

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10.5 Incompatible materials

Store away from: food and drink, feed.

Incompatible substances / materials: Strong oxidizing reagent (peroxides, chromates, chlorates, perchlorinated compounds, liquid oxygen, nitrates)

10.6 Hazardous decomposition products

The thermal decomposition may produce toxic fumes [carbon oxides (CO, CO₂), hydrocarbons.]

SECTION 11. TOXICOLOGICAL INFORMATION

Data for:

Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclic, < 5% n-hexane

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

a) acute toxicity

Acute toxicity:

(rat) 4 hours LC₅₀ > 20 mg/l (vapour). Results of tests or other studies do not meet the criteria for classification.

Minimally toxic. Based on experimental data for that product. Tests equivalent or similar to tests according to OECD Directive nr. 403.

Irritation:

No data on monitored properties.

Negligibly dangerous during handling at ordinary / normal temperatures.

Ingestion

Acute toxicity (rat): LD₅₀ > 5000 mg/kg. The results of tests or other studies do not meet the criteria for classification.

Minimally toxic. Based on experimental data for materials with similar structure. Tests equivalent or similar to tests according to OECD Directive nr. 401.

Dermal toxicity:

Acute toxicity (rabbit): LD₅₀ > 2920 mg/kg. The results of tests or other studies do not meet the criteria for classification.

Minimally toxic. Based on experimental data for materials with similar structure. Tests equivalent or similar to tests according to OECD Directive nr. 402.

b) skin corrosion / irritation

Available data. The results of tests or other studies meet the criteria for classification.

Irritating to skin. Based on experimental data for this product. Tests equivalent or similar to tests according to OECD Directive nr. 404.

c) serious eye damage / eye irritation

Available data. Results of tests or other studies do not meet the criteria for classification.

May cause mild and short-term eye irritation. Based on experimental data for materials with similar structure. Tests equivalent or similar to tests according to OECD Directive nr. 405. Respiratory sensitization: No definitive data available for this material.

d) respiratory sensitization / skin sensitization

It is not expected to be respiratory sensitiser.

Skin sensitization: Available data. The results of tests or other studies do not meet the criteria for classification.

It is not expected to be skin sensitizing. Based on experimental data for materials with similar structure.

Tests equivalent or similar to tests according to OECD Directive nr. 406 429.

e) germ cell mutagenicity

The results of tests or other studies do not meet the criteria for classification.

It is not expected to be a germ cell mutagen. Tests equivalent or similar to tests according to OECD Directive nr. 471 473 476.

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- f) carcinogenicity** Final data for this material are not available. It is not thought to cause cancer.
- g) reproductive toxicity** The results of tests or other studies do not meet the criteria for classification. It is not expected to be toxic to reproduction. Based on experimental data for materials with similar structure. Tests equivalent or similar to tests according to OECD Directive nr. 414 416.
Breast-feeding: No final data available for this material. It is not expected to harm infants through breast milk.
- h) toxicity of specific target organ – single exposure** Final data for this material are not available. May cause drowsiness or dizziness. Repeated exposure: Available data. The results of tests or other studies do not meet the criteria for classification.
- i) toxicity of specific target organ – repeated exposure** It is not expected to cause organ damage through prolonged or repeated exposure. Based on experimental data for materials with similar structure. Tests equivalent or similar to tests according to OECD Directive nr. 413.
- j) aspiration hazards** May be fatal if swallowed and enters airways. It is based on the physico-chemical properties of the material.

11.2 Information on other hazards

11.2.1 Endocrine disrupting properties

11.2.2 Additional information

Data are not available.

For the product itself:

Vapor concentrations above the recommended exposure limit irritate the eyes and respiratory tract and may cause headaches, dizziness, are anesthetic and may cause additional effects on the central nervous system. A small amount of liquid entering the lungs by inhalation or vomiting may cause chemical pneumonia or pulmonary edema. Very high exposure to this material or one of its components indoors or in a situation of abuse may result in an abnormal heart rhythm (arrhythmia). Together with high levels of stress and / or exposure to elevated hydrocarbon levels (above occupational exposure limits) and cardiac stimulants such as epinephrine, nasal decongestants, asthma medications or cardiovascular medications, they can cause arrhythmias.

Contains:

N-HEXANE: Prolonged and / or repeated exposure to n-hexane can lead to gradual and potentially irreversible damage to the peripheral nervous system (e.g. in fingers, feet, hands, legs etc.). Parallel exposure of methyl ethyl ketone (MEK) or methyl isobutyl ketone (MIBK) and n-hexane may lead to a risk of adverse effects of n-hexane on the central nervous system. N-hexane has been shown to cause testicular cancer at high doses in adult rats. The validity and significance of this finding for humans is unknown.

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SECTION 12. ECOLOGICAL INFORMATION

Data for:

Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclic, <5% n-hexane

12.1 Toxicity to aquatic organisms

It is expected to be toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

Ecotoxicity

Test	Duration	Organism type	Test results
Aquatic - Acute toxicity	48 hours	Daphnia magna	EL50 3 mg/l: data for similar substances
Aquatic - Acute toxicity	96 hours	Oncorhynchus mykiss	LL50 11.4 mg/l: data for similar substances
Aquatic - Acute toxicity	72 hours	Pseudokirchneriella subcapitata	EL50 30-100 mg/l: data for similar substances
Aquatic - Acute toxicity	72 hours	Pseudokirchneriella subcapitata	NOELR 3 mg/l: data for similar substances
Aquatic - Chronic toxicity	21 days	Daphnia magna	NOEC 0.17 mg/l: data for similar substances
Aquatic - Chronic toxicity	21 days	Daphnia magna	LOEC 0.32 mg/l: data for similar substances

12.2 Persistence and degradability

Biodegradation:

Available biodegradability data, determined according to OECD 301F, indicate that the substance is easily biodegradable ($\geq 60\%$ in 28 days).

Hydrolysis:

No significant transformation due to hydrolysis is expected.

Photolysis:

No significant transformation due to photolysis is expected.

Atmospheric oxidation:

Rapid degradation in air is expected.

Persistence, degradability and bioaccumulation potential

Environment	Test	Duration	Test results: Basic
water	Easy biodegradation	28 days	Degraded share 81 : similar material

12.3 Bioaccumulative potential

Not specified.

12.4 Mobility in soil

Highly volatile, it will split quickly into the air. Decomposition into sediments and solids in wastewater is not expected.

12.5 Results of PBT and vPvB

The product does not meet the criteria for classification as PBT or vPvB.

12.6 Endocrine disrupting properties

No information available.

12.7 Other adverse effects

Practically water-immiscible, forming a continuous layer on the water surface, which prevents the access of oxygen into the water whereby can damage water flora and fauna.

It does not contain ingredients harmful to the ozone layer.

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SECTION 13. DISPOSAL INSTRUCTIONS

13.1 Methods of handling waste

Suitable methods of removal of the substance or mixture.

Collect waste to carefully labeled sealed containers. Transmit liquidation to authorized organization.

Suitable methods of liquidation: the burning of hazardous waste in incinerator. During liquidation residual product and his packages is necessary to proceed in accordance with the Waste Act, as amended by the implementing regulations (Decree establishing a catalog of waste; Decree on details of waste management). If this preparation and his package will become waste, the final user must assign the appropriate code of waste according the Waste Catalogue. Classification according to Waste Catalogue can be done on the basis of waste at the time of its creation.

Uncured (not dry) product:

08 04 09 * waste adhesives and sealing materials containing the organic solvents or other dangerous substances, Cat. N.

Cured (dry) product:

08 04 10 Other waste adhesives and sealing materials which are not specified under number 08 04 09, Cat. O.

Used absorbents:

15 02 02 * absorbents agents, filter materials (including oil filters otherwise not specified), cleaning cloths and protective clothing contaminated by hazardous substances, cat N.

13.2 Contaminated packaging disposal methods

Contaminated packaging disposal methods:

The packaging containing uncured solution must be disposed of in the same way as its original content.

Classification of contaminated packaging of the product (the rest of the content): 15 01 10* Packaging containing residues of hazardous substances or packaging contaminated with these substances, category N.

Classification of a cleaned (empty) packaging

Depending on character of the packaging material the material is to be included in group 15 01 Packaging (including separately collected communal packaging waste), category O.

For instance:

15 01 04 Metal packaging, category O.

Cleaned packaging can be disposed of by methods depending on the packaging material used (take back by the product manufacturer, recycling, dumping, incineration).

13.3 The legislation of the waste

Act No. 541/2020 Coll., on the Waste

Decree No. 8/2021 Coll. (Waste Catalogue)

Decree No. 273/2021 Coll. on the Details of Waste Management

SECTION 14. TRANSPORT INFORMATION

14.1 UN number or ID number

1133

14.2 Relevant OSN name for shipment

Adhesives with flammable liquid

14.3 Class of transport hazard

3

Classification Code: F1

Hazard identification number: 33

Safety mark: 3



14.4 Packing group

II



14.5 Hazardous to environment

Yes

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14.6 Special precautions for user

Transporting group: 2 (D/E)
 Limited quantity: 5L/E2

14.7 Sea mass transport according to IMO standards

Irrelevant.

SECTION 15. REGULATIONS INFORMATION

15.1 Safety, health and environmental regulations / specific legislation relating to the substance or mixture

National regulations:

Act No. 254/2001 Coll. on Water (Water Act), as amended
 Act No. 541/2020 Coll., on Waste
 Act No. 201/2012 Coll., on Air Protection, as amended
 Act No. 258/2000 Coll., on Protection of Public Health, as amended
 Act No. 350/2011 Coll. of 27 October 2011 on Chemical Substances and Chemical Mixtures and on the Amendment of Certain Acts (Chemical Act), as amended
 Government Regulation No. 361/2007 Coll., as amended, which sets out the conditions for Health at work, including PEL and NPK limits (see Article 8).
 Regulation (EC) No. 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals and establishing a European Chemicals Agency, as amended (REACH)
 Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on Classification, Labelling and Packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 (CLP).

EU regulations:

Regulation No. 2004/42/EC (VOC): <70%
 Regulation (EC) No. 2037/2000 on substance that deplete the ozone layer: none
 Regulation (EC) No. 850/2004 on persistent organic pollutants: none
 Regulation (EC) No. 649/2012 concerning the export and import of hazardous chemicals
 Regulation (EC) No. 1907/2006, REACH, Annex XIV Substances subject to authorisation, as amended: none

Observe the restrictions on the employment of young people under the "Directive on the protection of young people at work" (94/33/EC).

Observe the employment restrictions under the "Maternity Protection Directive" (92/85/EEC) for pregnant workers and workers who have recently given birth or are breastfeeding.

The provision of § 23, para. 6 of the Decree no. No. 415/2012 Coll., on admissible level of pollution and its detection and on implementation of some other provisions of the Air Protection Act, **applies for the labeling of the product packaging:**

(6) According to the § 16 para. of the 3 act, products are marked on a label or in a accompanying technical documentation:

- a) by an indication of a total content of volatile organic compounds in a product expressed in a weight fraction or in a weight percentage according to § 2 by letter m) of the Act and
- b) in case of painting substances adhesive materials or printing inks listed in the Annex no. 5 also by an indication of content of substances in a product which, after evaporation of water or volatile organic compounds solidify (hereinafter "non-volatile substances") in weight or volume percentages and on density of a product in g/cm³ if previous information is stated in volume percentage.

15.2 Chemical Safety Assessment

None are specified..

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SECTION 16. OTHER INFORMATION

Detail about changes and revisions

Revision number	Date	The changes
0	31st March 2006	The new Material safety data sheet (MSDS).
1	3rd May 2006	Editing title in Sec. 1 according to novelisation no. 460/2005 Coll. Revised data in Sec. 2 according to MSDS from the supplier of components Classification of the preparation (Sec. 1.3) Product labeling (Sec. 15) Editing and adding text in Sec. 16
2	31st March 2010	Sec. 1-16: The change of basic component, MSDS was updated according to regulations REACH.
3	17th October 2011	New structure and content of MSDS, new product classification in accordance with the requirements of Regulation (EC) no. 1272/2008 (CLP).
4	22nd August 2013	Modifying of the name of partition (compliance with the requirements of the revised Annex II of REACH). Update Sec. 15.1
5	26th February 2019	Section 2.1., 3.2., 16.: Deletion of invalid DPD classification. Section 3, 11., 14.: Modifying the subsection headings. Section 13.3., 15.: Updating regulations.
6	18th May 2022	Complete revision of the safety data sheet according to the data of the supplier of the main component. Modification of BL according to Commission Regulation EU 2020/878 Legislation updates.
7	14th December	Section 1.1: Addition of UFI code Section 14.1, 14.2 and 14.6: Transport data revision Changes are marked in the BL with a GRAY BASE (does not apply to section headings).

Key or legend to abbreviations and acronyms used in the Material safety data sheet

ES (EINECS)	Existing Commercial Chemical Substances
CAS:	Chemical Abstracts Service (division of the American Chemical Society)
PBT:	Persistent, bioaccumulative and toxic substances
vPvB	Very persistent and very bioaccumulative substances
MSDS	Material safety data sheet
PEL	Permissible exposure limit
MAC-W	Maximum allowable concentration - working
LD50	The dose with the observed death in 50% of animals tested
LC50	The concentration with the observed death in 50% of animals tested
PPE	Personal protective equipment
NPK-P	Maximum permissible concentrations
VOC	Volatile organic compounds
PNEC	Estimation of the concentration at which no adverse effects occur
DNEL	Derived level at which there are no adverse effects

Sources of key data used to compile the data sheet

In addition to literature data the documents as follows were used to compile this Material Safety Data Sheet:

- Manufacturer's technical documentation.
- Material safety data sheet acc. to Regulation (ES) No. 1907/2006: Product name: EXXSOL™ DSP 80/110
Date of issue / revision: 14th July 2020, revision number: 4.01.
- Czech and EU regulations in the field of chemicals and chemical preparation

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In the case of mixtures, which kind of the methods of evaluating information referred was used for classification purposes (in Article 9 of Regulation (ES) no. 1272/2008):

Use the procedure under Regulation (ES) no. 1272/2008, Art. 9, para. 4 - extrapolation based on defined properties of dominant component.

A list of the relevant phrases, standardized phrases about dangerous, safety phrases and/or instructions for safe handling given in the Material Safety Data Sheet. Full text of all phrases and instructions which are not in full version in section 2 to 15:

Hazard Category:

Repr. 2	Reproductive toxicity, Cat. 2
STOT RE 2	Specific target organ toxicity - repeated exposure, Cat. 2
Aquatic Acute 1	Hazardous to the aquatic environment (acute), Cat. 1
Aquatic Chronic 1	Hazardous to the aquatic environment (chronic), Cat. 1

Full text of H-phrases referred to the sections 2 and 3

H361f Suspected of damaging fertility.
 H373 May cause damage to organs through prolonged or repeated exposure.
 H400 Very toxic to aquatic life.
 H410 Very toxic to aquatic life with long lasting effects.

Instructions about all training appropriate for workers to ensure protection of human health and the environment

Instructions for treatment of the product to include safety training in the workplace. Before using the product the user must be familiar with the principles relating to BHP working with chemicals.

The person conducting the transport of dangerous goods within the meaning of ADR must undergo relevant training.

Before use read the information on the product label.

Other information:

The data contained in this Material Safety Sheet are valid provided packing supplied by the manufacturer is used and if the product is used in a manner specified by the manufacturer.

This Material Safety Sheet is not a qualitative specification of the product and no warranties in the sense of Commercial Code provisions derive therefrom. Safety sheet is processed in the structure of the REACH Regulation.

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End of Safety Data Sheet.