pursuant to Regulation of Europien Parliament and Council of the European Union (ES) no. 1907/2006 (REACH) amended by Regulation of Commision (EU) no. 2020/878

Product name:

Page 1/14

Revision number: 5 Revised on: 14.12.2022

Issued on: 1.4.2010

Thinner R

D

SECTION 1. PRODUCT NAME AND COMPANY IDENTIFICATION

1.1. Identification of the substance or preparation **Commercial name** •

Commercial name	Thinner R
UFI code	JM00-C0C3-S00F-FNC5
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	The preparation is used in repairs of tyres.
preparation	The preparation is used only for purposes in accordance with instructions.
1.3. Identification of manufacturer,	importer, first distributor or distributor
Manufacturer:	Ferdus, s.r.o.
Adress	J.Fučíka 699, 768 11 Chropyně, Czech Republic
Phone	+420 577 103 566
Fax	+420 577 103 566
E-mail of the competent person	info@ferdus.cz; www.ferdus.cz
responsible for the Material Safety	
1.4. Emergency phone number	Toxicology Information Centre in Prague Na Bojišti 1, 128 08 Praha 2 Czech Republic Phone: +420 224 919 293

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.	
	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:	



pursuant to Regulation of Europien Parliament and Council of the European Union (ES) no. 1907/2006 (REACH) amended by Regulation of Commision (EU) no. 2020/878

Product name:

Page 2/14

Issued on: 1.4.2010

Thinner **R**

Revision number: 5 Revised on: 14.12.2022

Additional information on the label	Not specified	1		
Contains:	Hydrocarbor	ns, C6-C7, n-alkanes, isoalkanes, cyclic, <5% n-hexane		
(information which must be listed				
on the label)				
H-phrases:	H225 Highly	v flammable liquid and vapour.		
(The hazard statements):	H315 Causes	s skin irritation		
	H304 May b	e fatal if swallowed and enters airways.		
	H336 May ca	ause drowsiness or dizziness.		
	H411 Toxic	to aquatic life with long lasting effects.		
P-phrases:	P210	Keep away from heat/sparks/open flames/hot surfaces - No		
(Precautionary statements)		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

Product with a predominant content of liquid hydrocarbons mostly 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.	up to 100	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 Acute toxicity estimation	Not specified	Not specified	STOT RE 2; H373: C \geq 5 %

* 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.



Thinner R

pursuant to Regulation of Europien Parliament and Council of the European Union (ES) no. 19907/2006 (REACH)

amended by Regulation of Commision (EU) no. 2020/878 Product name: Page 3/14

Issued on: 1.4.2010 Revision number: 5

Revised on: 14.12.2022

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 perfom artificial respiration.

Cardiac arrest: is necessary to immediately begin a indirec 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 contamined by product change his clothing. Ensure the vicitm 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	a) Immediate medical attention after ingestion.b) In the case of inhalation is recommended exposed person into the fresh air.c) Remove contaminated clothing.d) Recommendation protective equipment persons who provide first aid: Voting in the circumstances of the emergency.
4.2 The most acute and delayed	symptons and effects:
Inhaled	It causes headache, nauzea, vomiting, impaired consciousness.

Inhaled	It causes headache, nauzea, 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	There is no specific antidote. Treatment of exposure should be directed at the
medical help and special treatment	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.	



firemen

MATERIAL SAFETY DATA SHEET

pursuant to Regulation of Europien Parliament and Council of the European Union (ES) no. 1907/2006 (REACH) amended by Regulation of Commision (EU) no. 2020/878

Thinner R

Product name:

Page 4/14

Issued on: 1.4.2010 Revision number: 5 Revised on: 14.12.2022

5.3 Protective equipment for

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 ccordance 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	Restrict access for unauthorized persons into the endangered area until the
workers in case of emergency	end of the emergency.
6.1.2 Measures for workers in case of	Must be prevented to direct contact with the product. Avoid contact with skin
emergency	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, firefighers)
	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	The spilled product is saturated in a suitable absorption material (special
methods and materials:	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.

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.

AFEDDUS	MATERIAL SAFETY DATA SHEET pursuant to Regulation of Europien Parliament and Council of the European Union (ES) no. 1907/2006 (REACH) amended by Regulation of Commision (EU) no. 2020/878	Page 5/14		
FERDUS	Product name:	Issued on: 1.4.2010		
	Thinner R	Revision number: 5		
		Revised on: 14.12.2022		
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

ene at 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

CAS number	PEL	NPK-P	Notes
	mg.n	1 ⁻³	
	400	1000	
110-54-3	70	200	I, D, P
110-82-7	700	2000	Ι
	110-54-3	mg.n 400 110-54-3 70	mg.m ⁻³ 400 1000 110-54-3 70 200

Notes:

Wenleen

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,	773 mg/kg bw/day DNEL,	2035 mg/m3 DNEL,		
n-alkanes, isoalkanes, cyclic,	Chronic exposure,	Chronic exposure,		
<5% n-hexane	Systemic effects	Systemic effects		

Consumer

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

AFFRANC	MATERIAL SAFETY DATA SHEET pursuant to Regulation of Europien Parliament and Council of the European Union (ES) no. 1907/2006 (REACH) amended by Regulation of Commision (EU) no. 2020/878	Page 6/14
	Product name:	Issued on: 1.4.2010
	Thinner R	Revision number: 5
		Revised on: 14.12.2022

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)			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 measur	res 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.
	When choosing a glove for a particular application should take into account a 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 a
Chine another time of the subscription	specifications glove supplier. With repeated use of gloves is being taken off clean.
Skin protection – other protection	Protective clothing and shoes. During a disaster, fire high concentration, use protective clothing and footwear in antistaticperformance.
Respiratory protection	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.



pursuant to Regulation of Europien Parliament and Council of the European Union (ES) no. 1907/2006 (REACH) amended by Regulation of Commision (EU) no. 2020/878

Product name:

Thinner **R**

Issued on: 1.4.2010 Revision number: 5

Page 7/14

Revised on: 14.12.2022

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 89 – 107 °C e) Boiling point or initial boiling point and boiling point range f) Flammability Highly flammable liquid g) Lower and upper explosive or 1,1/7 volume % flammable limits: h) Flash point (°C): - 9 °C i) Autoignition temperature 268°C j) Thermal decomposition Not technically possible k) pH 1) Kinematic viscosity 0.7 cSt (0.7 mm²/s) at 20°C m) Solubility insignificant n) Partition coefficient n-octanol / Log Pow > 4 [estimated] water (logarthmic value) o) Vapour pressure 6 kPa (45 mm Hg) při 20°C 720 kg/m³; 0.72 (relative to water) at 15°C p) Density and / or relative density 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 \leq 35 mN/m 100% of weight (1 kg/kg of product)

Content VOC100% of weight (1 kg/k,
~ 77 kg/1 kg of product9.2.1 Information on physical
hazard classesNot applicable9.2.2 Other safety characteristics
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.

pursuant to Regul		AL SAFETY DATA SHEET Europien Parliament and Council of the European Union (ES) no. 1907/2006 (REACH) By Regulation of Commision (EU) no. 2020/878	Page 8/14
		by Regulation of Commission (EC) no. 2020/070	Issued on: 1.4.2010
			Revision number: 5
		Thinner R	Revised on: 14.12.2022
10.5 Incompatible mater 10.6 Hazardous decomp products	Inc chr per osition Th	ore away from: food and drink, feed. compatible substances / materials: Strong oxidiz comates, chlorates, cchlorinated compounds, liquid oxygen, nitrates) e thermal decomposition may produce toxic fun 02), hydrocarbons.]	
SECTION 11. TOX Data for: Hydrocarbons, C6-C7, n- 11.11nformation on haza a) acute toxicity	alkanes, isoalkanes, c		at ordinary / normal at ordinary / normal . The results of tests or assification. data for materials with lar to tests according to
b) skin corrosion /	irritation	 Minimally toxic. Based on experimental similar structure. Tests equivalent or similar OECD Directive nr. 402. Available data. The results of tests or criteria for classification. Irritating to skin. Based on experimenta Tests equivalent or similar to tests according to the structure of the structure. 	data for materials with lar to tests according to other studies meet the l data for this product.
c) serious eye dam	age / eye irritation	nr. 404. Available data. Results of tests or other criteria for classification. May cause mild and short-term eye experimental data for materials with equivalent or similar to tests according to 0	e irritation. Based on similar structure Tests
d) respiratory sens sensitization	itization / skin	 Respiratory sensitization: No definitive material. It is not expected to be respiratory sensitises Skin sensitization: Available data. The r studies do not meet the criteria for classific It is not expected to be skin sensitizing. data for materials with similar structure. Tests equivalent or similar to tests accord nr. 406 429. 	data available for this er. results of tests or other cation. Based on experimental
e) germ cell mutag	enicity	The results of tests or other studies do reclassification. It is not expected to be a germ cell muta, similar to tests according to OECD Direction	gen. Tests equivalent or

•	pursuant to Regulation of I	AL SAFETY DATA SHEET Europien Parliament and Council of the European Union (ES) no. 1907/2006 (REACH)	Page 9/14	
FERDUS	amended Product name:	by Regulation of Commision (EU) no. 2020/878	Issued on: 1.4.2010	
			Revision number: 5	
		Thinner R	Revised on: 14.12.2022	
f) carcinogenicityg) reproductive to	oxicity	Final data for this material are not available It is not thought to cause cancer. The results of tests or other studies do n classification.		
		It is not expected to be toxic to re experimental data for materials with similar Tests equivalent or similar to tests accord nr. 414 416. Breast-feeding: No final data available for	r structure. ing to OECD Directive this material.	
 h) toxicityof specific target organ – single exposure i) toxicityof specific target organ – repeated exposure 		It is not expected to harm infants through breast milk. 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.		
		It is not expected to cause organ damage through prolonged o 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 haza	rds	May be fatal if swallowed and enters airv physico-chemical properties of the material		
11.2 Information on				
11.2.1 Endocrine disrupting properties 11.2.2 Additional information		Data are not available. For the product itself: Vapor concentrations above the recommodization in the eyes and respiratory tract and dizziness, are anesthetic and may cause a central nervous system. A small amount	may cause headaches, dditional effects on the	

Contains:

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

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, feets, hands, legs etc.). Parallel exposure of methyl ethyl ketone (MED) or methyl isobutyl ketone (MIBK) and n-hexane may lead to a risk of adverse effects of nhexane 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.

cardiovascular medications, they can cause arrhythmias.



pursuant to Regulation of Europien Parliament and Council of the European Union (ES) no. 1907/2006 (REACH) amended by Regulation of Commision (EU) no. 2020/878

Product name:

Thinner **R**

Page 10/14

Issued on: 1.4.2010 Revision number: 5 Revised on: 14.12.2022

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.

	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
	indicate that the s <u>Hydrolysis:</u> No significant tra <u>Photolysis:</u> No significant tra <u>Atmospheric oxid</u> Rapid degradation	ubstance is eansformation of the second seco	usily biodegradable lue to hydrolysis is lue to photolysis is ected. d bioaccumulatio 28 days	expected
2.3 Bioaccumulative potential	Not specified.			
12.4 Mobility in soil			quickly into the vater is not expecte	
12.5 Results of PBT and vPvB	The product does	not meets the	e criteria for classif	ication as PBT or vPvB.
2.6 Endocrine disrupting properties	No information a	vailable.		
12.7 Other adverse effects	surface, which pa damage water floa	revents the a ra and fauna.		nuous layer on the w into the water whereby ne layer.

SECTION 13. DISPOSAL INSTRUCTIONS

13.1 Methods of handling wasteSuitable 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

	MATERIAL SAFETY DATA SHEET pursuant to Regulation of Europien Parliament and Council of the European Union (ES) no. 1907/2006 (REACH) amended by Regulation of Commission (EU) no. 2020/878	Page 11/14	
FERDUS	Product name:	Issued on: 1.4.2010	
	TL : D	Revision number: 5	
	Thinner R	Revised on: 14.12.2022	
13.2 Contaminated pack disposal methods	The packaging containing uncured solution must is same way as its original content. <u>Classification of contaminated packaging of the pre- content):</u> 15 01 10* Packaging containing re- substances or packaging contaminated with these su <u>Classification of a cleaned (empty) packaging</u> Depending on character of the packaging material the included in group 15 01 Packaging (including separ communal packaging waste), category O. For instance: 15 01 04 Metal packaging, category O. Cleaned packaging can be disposed of by methods	d his package will become de of waste according the Catalogue can be done on ntaining the N. Is which are not specified luding oil filters othewise clothing contaminated by be disposed of in the <u>oduct (the rest of the</u> sidues of hazardous bstances, category N. he material is to be ately collected	
13.3 The legislation of t	packaging material used (take back by the product r recycling, dumping, incineration).he wasteAct No. 541/2020 Coll., on the Waste Decree No. 8/2021 Coll. (Waste Catalogue) Decree No. 273/2021 Coll. on the details of waste n		

SECTION 14. TRANSPORT INFORMATION

14.1 UN number or ID number	3295
14.2 Relevant OSN name for shipment	HYDROCARBONS, LIQUID, UNSPECIFIED
14.3 Class of transport hazard	3 Classification Code: F1 Hazard identification number: 33 Safety mark: 3
14.4 Packing group	п уго
14.5 Hazardous to environment	Yes
14.6 Special precautions for user	Transporting group: 2 (D/E) Limited quantity: 1L/E2
14.7 Sea mass transport according to IMO standards	Irrelevant.



pursuant to Regulation of Europien Parliament and Council of the European Union (ES) no. 1907/2006 (REACH) amended by Regulation of Commision (EU) no. 2020/878

Product name:

Thinner **R**

Page 12/14

Issued on: 1.4.2010 Revision number: 5 Revised on: 14.12.2022

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 iport 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 priting 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..



pursuant to Regulation of Europien Parliament and Council of the European Union (ES) no. 1907/2006 (REACH) amended by Regulation of Commision (EU) no. 2020/878

Product name:

Page 13/14

Issued on: 1.4.2010 Revision number: 5

Revised on: 14.12.2022

SECTION 16. OTHER INFORMATION

Detail about changes and revisions			
Revision number	Date	The changes	
0	1st April 2010	The new Material safety data sheet (MSDS) according to regulations	
		REACH.	
1	16th September 2011	New structure and content of MSDS, new product clasification in	
		accordance with the requirements of Regulation (EC) no. 1272/2008	
		(CLP).	
2	22nd August 2013	Modifying of the name of partition (compliance with the requirements	
		of the revised Annex II of REACH).	
		Update Sec. 15.1	
3	22nd 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.	
4	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.	
5	14th December	Section 1.1: Addition of UFI code	
		Section 14.1, 14.2 and 14.6: Transport datas 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

They of regenta to appreviations and act on,	ins used in the filuterial survey auta 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

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, standarded 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:

Thinner **R**



pursuant to Regulation of Europien Parliament and Council of the European Union (ES) no. 1907/2006 (REACH) amended by Regulation of Commision (EU) no. 2020/878

Product name:

sued on: 1.4.2010

Page 14/14

Thinner **R**

Issued on: 1.4.2010	
Revision number: 5	
Revised on: 14.12.2022	

Hazard Category:

2
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 abdolvovat 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.

Revision nr. 5: Petra Menšíková, petra.mensikova@ferdus.cz

End of Safety Data Sheet.