

SECTION 1: SUBSTANCE/MIXTURE IDENTIFICATION AND MANUFACTURER/SUPPLIER IDENTIFICATION

1.1. Product identification

SEAM SEALANT

UFI: JD70-G0A0-D00W-QJV2

1.2. Relevant identified uses of the substance or mixture and uses advised against

Sealing compound to be used in car refinish.

Identified sectors of use:

Industrial, professional.

1.3. Data of the safety data sheet supplier

Przedsiębiorstwo RANAL Sp. z o.o.

ul. Łódzka 3

42-240 Rudniki k. Częstochowy, PL

Tel.: +48 34 329 45 03

Fax: +48 34 320 12 16

Registration number 000029202

Person responsible for the safety data sheet:

ranal@ranal.pl

1.4. Emergency telephone

+48 34 329 45 03 (8.00 - 15.00)

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

The mixture is classified as hazardous according to the current regulation EC 1272/2008 (CLP) (and the following amendments and annexes. The product requires a material safety data sheet that complies with the provisions of the Regulation EC 2015/830 and the following amendments.

All the additional information concerning the risks for health and/or the environment is given in sections 11 and 12 of the MSDS.

Hazard classification and labelling:

Flammable liquid, cat. 2.

H225 Highly flammable liquid and vapour.

Skin sensitization, cat. 2.

H315 Causes skin irritation.

Specific target organ toxicity single exposure, cat. 3.

H336 May cause drowsiness or dizziness.

Hazardous to the aquatic environment, chronic toxicity, cat. 3.

H412 Harmful to aquatic life with long-lasting effects.

2.2. Label elements

Hazard labelling pursuant to EC Regulation 1272/2008 and the following amendments and annexes.

Contains:

Heptane.

White spirit dearomatized (hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics).

Octane (hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics).

Pictograms:



Signal word: **DANGER.**

Risk index:

H225 Flammable liquid and vapour.

H315 Causes skin irritation.

H336 May cause drowsiness or dizziness.

H412 Harmful to aquatic life with long-lasting effects.

Safety index:

P210 Keep away from sources of heat/sparks/open flames/hot surfaces. No smoking.

P233 Keep container tightly closed.

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P370+P378 In case of fire: Use ... to extinguish...

P280 Wear protective gloves/protective clothing/eye protection/face protection.
P312 Call a POISON CENTER or doctor/physician if you feel unwell.

VOC (Directive 2004/42/EC):

Special finishes.

VOC Given in g/litre of the product in a ready-to use mixture:

Limit value 840,00

VOC of the product 348,00

2.3. Other hazards

Based on the available data, the product does not contain PBT or vPvB in amounts greater than 0.1%.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances

No data available.

3.2. Mixtures

Product identification: SEAM SEALANT

Substance name
Concentration [% weight]
Identification numbers
Classification and labelling

Heptane

10 ≤ x < 20%

EC 927-510-4

CAS: 64742-49-0

Index no: -

Registration no: 01-2119475515-33-XXXX

Classification 1272/2008 (CLP):

Flam. Liq. 2, H225; Asp. Tox 1, H304; Skin Irrit. 2, H315; STOT SE 3, H336; Aquatic Chronic 2, H411; Note C.

Xylene (mixture of isomers)

5 ≤ x < 9%

EC: 215-535-7

CAS: 1330-20-7

Index no: 601-022-00-9

Registration no: 01-2119488216-32-XXXX

Classification 1272/2008/EC:

Flam. Liq. 3, H226; Acute Tox. 4, H312; Acute Tox. 4, H332; Asp. Tox. 1, H304; STOT RE 2, H373; Eye Irrit. 2, H319; Skin Irrit. 2, H315; STOT SE 3, H335; Note C.

Octane (hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics)

2.5 ≤ x < 5%

EC: 920-750-0

CAS: 111-65-9

Index no: 601-009-00-8

Registration no: 01-2119473851-33

Classification 1272/2008/EC:

Flam. Liq. 2, H225; Asp. Tox. 1, H304; STOT SE 3, H336; Aquatic Chronic 2, H411; Note C

White spirit dearomatized (hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics)

1 ≤ x < 5%

CAS: 1174522-20-3

EC: 919-857-5

Index no: -

Registration no: 01-2119463258-33-XXXX

Classification 1272/2008/EC:

Flam. Liq. 3, H226; Asp. Tox. 1, H304; STOT SE 3, H336; EUH066, Note C.

Full text of hazard statements provided in section 16 of the Sheet.

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

Eyes:

Remove contact lenses. Wash eyes with plenty of water for at least 15 minutes with eyelids wide open. If the problem persists, seek medical advice.

Skin:

Remove contaminated clothes. Wash skin with plenty of water. If the problem persists, seek medical advice. Wash contaminated clothes before reuse.

Airways:

Move the injured to fresh air. In case of breathing difficulties get medical aid.

Alimentary tract:

Consult a doctor. Induce vomiting only if recommended by the doctor. Do not administer anything to an unconscious person if not clearly recommended by a doctor.

4.2. Most important symptoms both acute and delayed

There is no information about symptoms or effects caused by the product.
Symptoms and effects caused by the contained substances are described in section 11.

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

No data.

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing agents:

Such extinguishing agents as: carbon dioxide, foam, powder. In case of the leakage of the product, if there is no fire, water spray can be used to disperse flammable vapours to protect personnel trying to stop the leak.

Unsuitable extinguishing agents:

Do not use jets of water. Water is not effective for extinguishing fires, but can be used for cooling containers exposed to fire to prevent explosion.

5.2. Special hazards arising from the substance or mixture

Hazards caused by exposure in case of fire.

Pressure build up in the containers exposed to fire causes the risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters

General information:

Use water jet to cool the containers, to avoid product decomposition and formation of substances potentially hazardous for health. Rescue teams should be equipped with full set of protective clothes. Collect extinguishing water to prevent it from draining into the sewage system. Dispose of contaminated water according to applicable regulations.

Special protective equipment for fire fighters:

Standard set of protective clothes e.s. fire kit (BS EN 469), gloves (BS EN 659) and footwear (A29 and A30) in combination with self-contained breathing apparatus (BS EN 137).

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency measures

Stop the leakage if there is no hazard. Wear suitable protective clothes (including personal protective measures described in section 8 of this sheet) to prevent contamination of skin, eyes and personal clothes. These indications refer to the processing staff as well as to emergency teams. Keep away persons with no suitable protective equipment. Eliminate all ignition sources (cigarettes, flames, sparks, etc.) from the area of leakage.

6.2. Environmental precautions

Prevent from penetrating into sewage system, surface water, ground water and soil.

6.3. Methods and materials for containment and cleaning up

Collect the substance into a suitable container. If the product is flammable, use explosion-proof equipment. Verify compatibility of the container in section 10. Collect product residues with an inert absorbent. Make sure that the leakage area is well ventilated. Remove the contaminated material according to the recommendations provided in section 13 of the MSDS.

6.4. Reference to other sections

All the information on personal protection and waste disposal is given in sections 8 and 13 of the MSDS.

SECTION 7: HANDLING AND STORAGE OF SUBSTANCES AND MIXTURES

7.1. Precautions for safe handling

Store away from heat sources, flames and open fire; do not smoke, do not use matches or lighters.

Vapours may catch fire, which may lead to an explosion; vapour accumulation should therefore be avoided by opening door and windows and ensuring good ventilation. With no adequate ventilation, vapours may accumulate at the ground level, and, if ignited,

SEAM SEALANT

they may catch fire even at a distance, with a risk of backfire. Avoid accumulation of electrostatic charges. Use earthing system of the containers when transferring the product and wear antistatic footwear.
 Vigorous stirring and flow through the tubes and other equipment may cause formation and accumulation of electrostatic charges. Do not use compressed air when handling the product in order to avoid the risk of fire or explosion.
 Open the containers carefully, as they may be pressurized.
 Do not eat, drink and smoke when handling the product.
 Avoid leakage of the product to the environment.

7.2. Conditions for safe storage, including any incompatibilities

Store only in original containers.
 Store the containers tightly sealed, in a well ventilated room, away from direct sunlight.
 Store in well ventilated room away from heat sources, open flames, sparks and other ignition sources.
 Store the containers away from all incompatible materials, see section 10.

7.3. Special end use (s)

No data.

SECTION 8: EXPOSURE CONTROL/PERSONAL PROTECTION MEASURES

8.1. Control parameters

Regulatory information

DEU	Germany	MAK_und BAT-Werte-Liste 2012
ESP	Spain	INSHT – Límites de exposición profesional para agentes químicos en España 2015
FRA	France	JORF n°0109 du 10 mai 2012 page 8773 texte n° 102
GBR	United Kingdom	EH40/2005 Workplace exposure limits
ITA	Italy	Decreto Legislativo 9 Aprile 2008, n.81
PRT	Portugal	Ministério da Economie do Emprego Consolida as prescrições mínimas em material de protecção dos trabalhadores contra os riscos para a segurança e a saúde devido à agentes químicos no trabalho – Diaro da Republica I 26; 2012-02-06
EU		OEL EU Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
TLV-ACGIH		ACGIH 2016

HEPTANE

Threshold Limit Value

TYPE	COUNTRY	TWA/8H MG/M3	PPM	STEL/15MIN MG/M3	PPM
MAK	DEU	2100	500	2100	500
VLA	ESP	2085	500		
VLEP	FRA	1668	400	2085	500
WEL	GBR	2085	500		
VLEP	ITA	2085	500		
VLE	PRT	2085	500		
OEL	EU	2085	500		
TLV-ACGIH		1639	400	2049	500

XYLENE (MIXTURE OF ISOMERS)

Threshold Limit Value

TYPE	COUNTRY	TWA/8H MG/M3	PPM	STEL/15MIN MG/M3	PPM
AGW	DEU	440	100	880	200 SKIN
MAK	DEU	440	100	880	200 SKIN
VLA	ESP	221	50	442	100 SKIN
VLEP	FRA	221	50	442	100 SKIN
WEL	GBR	220	50	441	100
VLEP	ITA	221	50	442	100 SKIN
VLE	PRT	221	50	442	100 SKIN
OEL	EU	221	50	442	100 SKIN
TLV-ACGIH		434	100	651	150

OCTANE

Threshold Limit Value

TYPE	COUNTRY	TWA/8H MG/M3	PPM	STEL/15MIN MG/M3	PPM
MAK	DEU		500		1000
VLA	ESP	1420	300		
VLEP	FRA	1450	300		
TLV-ACGIH		1401	300		

SEAM SEALANT

Derived no-effect level – DNEL / DMEL								
Effect on consumers					Effect on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral			VND	699 mg/kg/d				
Inhalation			VND	2035 mg/m3				
Skin			VND	699 mg/kg/d			VND	773 mg/kg/d

WHITE SPIRIT DEAROMATIZED					
Threshold Limit Value					
TYPE	COUNTRY	TWA/8H MG/M3	PPM	STEL/15MIN MG/M3	PPM
TLV-ACGIH		1200	197		

Legend:
(C) – CEILING;
INHAL – Inhalable fraction;
RESP – Respirable fraction;
THORA – Thoracic fraction.
VND – hazard identified but no DNEL/PNEC available;
NEA – no exposure expected;
NPI – no hazard identified

TLV of solvent mixture: 772 mg/m³.

8.2. Exposure control

As the use of adequate technical measures must always take priority over personal protection measures, make sure that the workplace is properly ventilated. Personal protection measures should be CE marked which indicates that they comply with applicable standards. Provide an emergency shower with face and eyes wash station.

Hands protection:

Protect hands with Working gloves cat. III (Standard EN 374).

The following should be considered when choosing the material of gloves: compatibility, degradation and permeability.

Resistance to chemical factors should be verified before the use of gloves, as it can be unpredictable. The gloves' wear time depends on time and type of use.

Skin protection:

Professional long-sleeved overalls, cat. II and safety footwear (see Directive 89/686/EEC and Standard EN ISO 20344). Wash body with water and soap after removing protective clothing. Consider the use of antistatic clothing in working environment if there is a risk of explosion.

Eyes protection:

Tight protective goggles (see standard EN 166).

Respiratory protection:

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with AX type of filter, with the limit of use defined by the manufacturer (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) a combined filters are required.

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited. If the substance considered is odourless or its odour threshold is higher than the corresponding TLV-TWA and in case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

Environmental control

The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards. Product residues must not be disposed of with waste water or by dumping in waterways.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical state paste
Colour grey
Odour no data

Odour threshold	no data
pH	no data
Melting/freezing point	no data
Initial boiling point	> 70°C
Boiling range	no data
Flash point	-5°C
Evaporation rate	no data
Flammability (solid, gas)	no data
Bottom flammability limit	no data
Top flammability limit	no data
Bottom explosion limit	no data
Top explosion limit	no data
Vapour pressure	no data
Vapour density	no data
Relative density	1.20
Solubility	no data
N-octanol/water partition coefficient	no data
Auto ignition point	no data
Viscosity	>20,5 mm ² /sec (40°C); 400000 mPas @ 25°C
Explosive properties	no data
Oxidizing properties	no data

9.2. Other information

VOC (Directive 2004/42/EC)	29% – 348.00 g/litre
Total solids (250°C / 482°F)	71%

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

No particular risk of reaction with other substances under normal conditions.

10.2. Chemical stability

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions

Vapours may form explosive mixtures with air.

Xylene (mixture of isomers)

The product is stable under normal conditions of use and storage. Reacts violently with: strong oxidants, strong acids, nitric acid, perchlorates. Vapours may form explosive mixtures with air.

10.4. Conditions to be avoided

Avoid overheating. Avoid accumulation of electrostatic charges. Avoid all sources of ignition.

10.5. Incompatible materials

No data.

10.6. Hazardous decomposition products

In case of thermal decomposition or fire gases and vapours potentially hazardous for health may be generated.

SEKCJA 11: TOXICOLOGICAL INFORMATION

Due to the lack of experimental data for the product itself, the health risk is assessed according to properties of the substances contained in the product, on the basis of the criteria set out in applicable classification regulations.

To assess the toxicological effects of exposure, the concentration of individual harmful substances listed in Section 3 should therefore be taken into account.

11.1. Information on toxicological effects

Xylene (mixture of isomers)

Toxic effect on central nervous system (encephalopathy). Irritating to skin, mucous membranes, cornea and respiratory tract.

LC50 (inhalation-vapours) of the mixture	>20 mg/l
LC50 (inhalation-mist/dust) of the mixture	not classified (no significant component)
LD50 (oral) of the mixture	not classified (no significant component)
LD50 (skin) of the mixture	>2000 mg/kg

a) Acute toxicity:

White spirit deodorized (hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics)

LD50 (rat, oral)	>5000 mg/kg
LD50 (rabbit, skin)	>2000 mg/kg
LC50 (rat, inhalation)	>9300 mg/l (4 h)

Xylene (mixture of isomers)	
LD50 (rat, oral)	3523 mg/kg
LD50 (rabbit, skin)	4350 mg/kg
LC50 (rat, inhalation)	26 mg/l (4 h)
Heptane	
LD50 (rat, oral)	>5840 mg/kg
LD50 (rabbit, skin)	>2920 mg/kg
LC50 (rat, inhalation)	>23300 mg/l (4 h)
Octane (hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics)	
LD50 (rat, oral)	>5840 mg/kg
LD50 (rabbit, skin)	>2920 mg/kg
LC50 (rat, inhalation)	>23300 mg/l (4 h)

Caustic / irritating effect on skin:
Causes skin irritation.

c) Serious eye damage/irritation:
Does not meet the classification criteria for this hazard class.

d) Allergic effect on airways or skin:
Does not meet the classification criteria for this hazard class.

e) Mutagenic effect on germ cells:
Does not meet the classification criteria for this hazard class.

f) Carcinogenic effect:
Does not meet the classification criteria for this hazard class.

h) Reproduction toxicity:
Does not meet the classification criteria for this hazard class.

h) STOT – single exposure:
May cause drowsiness or dizziness.

h) STOT – repeated exposure:
Does not meet the classification criteria for this hazard class.

j) Aspiration hazard:
Does not meet the classification criteria for this hazard class.

SECTION 12: ECOLOGICAL INFORMATION

This product is dangerous for the environment and aquatic organisms. With long-term exposure, it causes negative effects in the aquatic environment.

12.1. Toxicity

White spirit dearomatized	
<i>Oncorhynchus mykiss</i> (rainbow trout) / LC50 (96 h)	>1000 mg/l
<i>Dafnia Magna</i> / EC50 (48 h)	>1000 mg/l
<i>Pseudokirchnerella subcapitata</i> (algae) / EC50 (72 h)	>1000 mg/l

Xylene (mixture of isomers)	
<i>Oncorhynchus mykiss</i> (rainbow trout) / LC50 (96 h)	2.6 mg/l
<i>Chlorella vulgaris</i> (Chlorophyta) / EC50 (72 h)	2.2 mg/l
NOEC chronic to fish (56 d)	>1.3 mg/l
NOEC chronic to crustacea (7 d)	0.96 mg/l

Heptane	
<i>Tilapia mossambica</i> (Mozambique tilapia) / LC50 (96 h)	375 mg/l
<i>Dafnia Magna</i> / EC50 (48 h)	82.5 mg/l
<i>Algae</i> (algae) / EC50 (72 h)	1.5 mg/l
NOEC chronic to fish (28 d)	1.534 mg/l/
NOEC chronic to crustacea (<i>Dafnia magna</i>) (21 d)	1 mg/l

Octane	
<i>Oncorhynchus mykiss</i> (rainbow trout) / LC50 (96 h)	3 mg/l
<i>Dafnia Magna</i> / EC50 (48 h)	4.6 mg/l
<i>Pseudokirchnerella subcapitata</i> (algae) / EC50 (72h)	10 mg/l

12.2. Persistence and degradability

The paraffinic hydrocarbon particles can be considered as soluble both in water and in the air. They spread mainly in the air. The small amount of non-degradable material that spreads through the water tends to accumulate in fish.

White spirit dearomatized
Entirely biodegradable. Rapidly biodegradable.

Xylene (mixture of isomers)
Solubility in water 100-1000 mg/l
Biodegradability: No data.
Rapidly biodegradable.

Heptane
Solubility in water 0.1-100 mg/l
Rapidly biodegradable.

Octane
Solubility in water 0.1-100 mg/l
Rapidly biodegradable

12.3. Bioaccumulative potential

Xylene (mixture of isomers)
n-octanol/water partition coefficient 3.12
BCF 25,9

Heptane
n-octanol/water partition coefficient 4,5
BCF 552

Octane
n-octanol/water partition coefficient 5.15
BCF 198.7

12.4. Mobility in soil

Xylene (mixture of isomers)
soil/water partition coefficient 2.73

Heptane
soil/water partition coefficient 2.38

Octane
soil/water partition coefficient 2.64

12.5. Results of PBT and vPvB assessment

Based on the available data, the product does not contain PBT or vPvB in amounts greater than 0.1%.

12.6. Other hazardous effects

No data.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Reuse if possible. Product residues should be treated as harmful waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.

Disposal must be performed through an authorised waste management unit, in compliance with national and local regulations The transport of product waste is subject to the provisions of ADR.

Contaminated packaging:
Contaminated packaging should be disposed of in accordance with applicable law.

SECTION 14: TRANSPORT INFORMATION

UN number

ADR/RID,: 3175
IATA: -

14.2 UN proper shipping name

ADR/RID,: SOLIDS CONTAINING FLAMMABLE LIQUID, N.O.S.
IMDG SOLIDS CONTAINING FLAMMABLE LIQUID, N.O.S.

IATA: SOLIDS CONTAINING FLAMMABLE LIQUID, N.O.S.

14.3 Transport hazard class(-es)



ADR/ RID, Class: 4.1, Label: 4.1



IMDG: Class: 4.1, Label: 4.1



IATA: Class: 4.1, Label: 4.1

14.4 Packaging group

ADR/RID, IMDG, IATA: II

14.5. Environmental hazards

ADR/RID: No.

IMDG: No.

IATA: No.

14.6. Special precautions for users

ADR/RID:	HIN – Kemler: 40	Limited quantities: 1kg	Tunnel restriction code: (E)
	Special provisions: -		
IMDG:	EMS: F-A, S-I	Limited quantities: 1kg	
IATA:	Cargo:	Maximum quantity: 50 kg	Packaging instructions: 448
	Pass.:	Maximum quantity: 15 kg	Packaging instructions: 445
	Special instructions:	A46	

14.7. Transport in bulk according to Annex II of MARPOL Convention and the IBC Code

Not applicable.

SECTION 15: REGULATORY INFORMATION

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

Category according to SEVESO – Directive 2012/18/EC P5c

Restrictions related to the product or contained substances subject to Annex XVII to EC Regulation 1907/2006.

Product
Point 3-40

Substances on Candidate List (Art.59 REACH)

Based on the available data, the product does not contain SVHC or vPvB in amounts greater than 0.1%.

Substances subject to authorization (Annex XIV REACH)	none
Substances subject to export reporting pursuant to EC Regulation 649/2012	none
Substances subject to the Rotterdam Convention	none
Substances subject to the Stockholm Convention	none

Healthcare control

The workers exposed to this product do not have to undergo medical examinations provided that available data on hazard assessment prove that the health and safety risk for the workers is not significant and that the recommendations of directive 98/24/EC are observed.

VOC (Directive 2004/42/EC)
Special finishes.

15.2. Chemical safety assessment

A chemical safety assessment has been performed for the following contained substances:

Xylene (mixture of isomers).

Octane.

White spirit dearomatized.

SECTION 16: OTHER INFORMATION

Full text of hazard statements mentioned in section 2 - 15 of the Sheet:

Flam. Liq. 2	Flammable liquids, cat. 2.
Flam. Liq. 3	Flammable liquids, cat. 3.
Acute Tox. 4	Acute toxicity, cat. 4.
Asp. Tox. 1	Aspiration hazard, cat. 1.
STOT RE 2	Specific target organ toxicity – repeated exposure, cat. 2.
Eye Irrit. 2	Eye irritation, cat. 2.
Skin Irrit. 2	Skin irritation, cat. 2.
STOT SE 3	Specific target organ toxicity - single exposure, kat. 3.
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, cat. 1.
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, cat. 3.
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H304	May be fatal if swallowed and enters airways.
H373	May cause damage to organs.
H319	Causes serious eye damage.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H411	Toxic to aquatic life with long-lasting effects.
H412	Harmful to aquatic life with long-lasting effects.
EUH066	Repeated exposure may cause skin dryness or cracking.

Descriptor system:

ERC 8a	Wide dispersive indoor use of processing aids in open systems.
ERC 8d	Wide dispersive outdoor use of processing aids in open systems.
PC 9a	Coatings and paints, thinners, paint removers.
PROC 10	Roller application or brushing.
PROC 11	Non industrial spraying.
PROC 19	Hand-mixing with intimate contact and only PPE available.
PROC 7	Industrial spraying.
PROC 8a	Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities.
PROC 8b	Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities.
PROC 9	Transfer of substance or preparation into small containers (dedicated filling line, including weighing).
SU 17	General manufacturing, e.g. machinery, equipment, vehicles, other transport equipment.
SU 19	Building and construction work.

Explanation of abbreviations and acronyms:

ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
CAS Number	- number in the register of Chemical Abstract Service
CE50	- Effective concentration (required for 50% effectiveness).
CE NUMBER	- Identification in ESIS (European database of existing chemical substances).
CLP	- EC Regulation 1272/2008.
DNEL	- derived no effect level.
EmS	- Emergency plan.
GHS	- Globally Harmonised System of Classification and Labelling of Chemicals.
IATA DGR	- International Air Transport Association; Regulations on dangerous goods .
IC50	- Effective concentration of immobilization 50%.
IMDG	- International Marine Code of Dangerous Goods.
IMO	- International Marine Organization.
INDEX NUMBER	: Identification in Annex VI to CLP.
LC50	- Lethal concentration 50%.
LD50	- Lethal dose 50%.
OEL	- Occupational exposure level.
PBT	- persistent, bioaccumulative and toxic according to REACH Regulation.
PEC	- Predicted environmental concentration.
PEL	- Predicted exposure level .
PNEC	- Predicted no-effect concentration
REACH	- EC Regulation 1907/2006.
RID	- Regulations concerning the international carriage of dangerous goods by rail.
TLV	- Threshold value.
TLV CEILING	- Concentration, which should not be exceeded during occupational exposure.
TWA STEL	- Short time exposure limit.
TWA	- Time - Weighted average of exposure.
LZO	- Volatile Organic Compounds.
vPvB	- Very persistent and very bioaccumulative according to REACH Regulation.
WGK	- Water hazard class (German).

GENERAL BIBLIOGRAPHY

1. Regulation (EC) 1907/2006 (REACH) of the European Parliament
2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
3. Regulation (EC) No 790/2009 (I Atp. CLP) of the European Parliament.
4. Regulation (EC) 2015/830 of the European Parliament.
5. Regulation (EC) No 286/2011 (II Atp. CLP) of the European Parliament.
6. Regulation (EC) No 618/2012 (III Atp. CLP) of the European Parliament.
7. Regulation (EC) No 487/2013 (IV Atp. CLP) of the European Parliament.
8. Regulation (EC) No 944/2013 (II Atp. CLP) of the European Parliament.
9. Regulation (EC) No 605/2014 (VI Atp. CLP) of the European Parliament.

- The Merck Index- 10th edition
- Handling Chemical Safety
- INRS – Fiche Toxicologique
- Patty – Industrial Hygiene and Toxicology
- N.I. Sax – Dangerous properties of Industrial Materials -7, edition of 1989
- ECHA website

Note for users:

The information contained in this sheet is based on our knowledge of the day of the last version. Users must verify the suitability and accuracy of the information provided for each specific use of the product.

This document does not constitute a guarantee of any specific features of the product .

The use of this product is not subject to our direct control; therefore the users must comply to occupational health and safety regulations under their own responsibility. The producer is relieved from any liability resulting from improper use of the product. Personnel should be trained on handling chemical products.

Changes compared to the previous sheet: Changes in section 1.1, 16 and general update.

Sheet number: 03-1I3T-1220-V5