

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

1.1. Product identification PROFESSIONAL THINNER FOR ACRYLIC PRODUCTS UFI: KUY0-N0RD-1000-9RXP

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

<u>Identified uses:</u> Industrial and professional applications in coatings. Uses advised against: Other than mentioned above.

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

Classification according to the EC Regulation 1272/2008 of 16 December 2008 on classification, labelling and packaging (CLP).

<u>General hazards:</u> The product is classified as hazardous according to current regulations.

Health hazard:

Asp. Tox 1 - Aspiration hazard, cat.1; H304. Skin Irrit. 2 - Skin irritation, cat. 2, H315. Eye Irrit. 2 - Eye irritation, cat.2, H319. STOT SE 3 - Specific target organ toxicity – single exposure STOT single exposure, cat. 3, H336; H335. STOT RE 2 - Specific target organ toxicity – repeated exposure, STOT repeated exposure, cat. 2, H373. Acute Tox. 4 - Acute toxicity, cat. 4- airways, H332; H312*.

Hazardous properties: Flam. Liq. 3 - Flammable liquid, cat. 3, H226.

Environmental hazards: Not applicable.

2.2. Label elements

Pictograms:



Signal word: Danger.

Hazard statements:

H226	Flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H319	Causes eye irritation.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H373	May cause damage to organs through prolonged or repeated exposure (liver, kidneys, hearing organs).
H332	Harmful if inhaled.
H312*	Harmful in contact with skin.
Precautionary state	
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. *
P241*	Use explosion-proof [electrical/ventilating/lighting/] equipment.*

- P271 * Use only outdoors or in a well-ventilated area.
- P260 Avoid breathing dust/fume/gas/mist/vapours/ spray.
- P264a* Wash hands thoroughly after handling.
- P280 Wear protective gloves/protective clothing/eye protection/face protection.
- P301+ P310 IF SWALLOWED : Immediately call a POISON CENTER or doctor/physician.
- P331 Do not induce vomiting.
- P302+P352* IF ON SKIN: Wash skin with plenty of water.



P304+P340IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.P305+P351+P338*IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do.
Continue rinsing.P312*Call a POISON CENTER/doctor if you feel unwell/...P501a*Dispose of contents/container to a licensed waste collector.

2.3. Other hazards

The components of the mixture do not meet the PBT or vPvB criteria in accordance with Annex XIII of the Reach Regulation

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances

Not applicable.

3.2. Mixtures

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

Xylene (mixture of isomers)

60-70% * EC: 215-535-7 CAS: 1330-20-7 Registration number: 01-2119488216-32-XXXX Flam. Liq. 3, H226; Asp. Tox. 1, H304; Acute Tox. 4, H332, Acute Tox. 4, H312; Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335; STOT RE 2, H373 (liver) (kidneys) (hearing organs)*.

or Reaction mass of ethylbenzene and m-xylene and p-xylene

60-70% * EC: 905-588-0 CAS: not available Registration number: 01-2119539452-40-XXXX

or Reaction mass of ethylbenzene and xylene*

60-70% * EC: 905-562-9 CAS: not available Registration number: 01-2119555267-33-XXXX Flam. Liq. 3, H226, Acute Tox. 4, H332, Acute Tox. 4, H312, Skin Irrit. 2, H315.

N-butyl acetate

20-30% EC: 204-658-1 CAS: 123-86-4 Index no: 607-025-00-1 Registration no: 01-2119485493-29-XXXX Flam. Liq. 3, H226; STOT SE 3, H336; EUH066.

1-Methoxy-2-propyl acetate*

<10% * EC: 203-603-9 CAS: 108-65-6 Index no: 601-021-00-3 Registration no: 01-2119475791-29-XXXX Flam. Liq. 3; H226.

If hazardous components are listed, the meaning of H phrases is given in p. 16 of the Safety Data Sheet.

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

<u>Airways:</u> In the event of inhalation exposure, remove the injured from the exposure site, keep calm, protect against heat loss. In the event of shortness of breath, qualified personnel should administer oxygen, if there is no breath - apply artificial respiration. **Call a doctor**. <u>Skin:</u> In case of skin contact, remove the clothes, wash the skin with water (with soap if there are no burns). If there are symptoms of skin irritation, a dermatological consultation is recommended.

<u>Eyes:</u> In case of contact with eyes rinse eyes with plenty of water for about 15 minutes. Avoid strong water jet- risk of cornea damage. Remove contact lenses. Protect the uninjured eye. If symptoms of irritation occur, consult a doctor. Provide an ophthalmological consultation.*

<u>Alimentary tract:</u> Immediately call for medical help. Do NOT induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Rinse mouth with water. Give water to drink. Do not give milk or alcohol. Never give anything by mouth to an unconscious person. *

4.2. Most important symptoms both acute and delayed

<u>After inhalation:</u> Respiratory irritation. Depressant effect on the central nervous system, cough, difficulty breathing, sore throat, headache, dizziness, nausea, vomiting.*



<u>Contact with skin:</u> Skin irritation, redness, swelling and dryness, cracking of the skin as a result of long-term exposure. * <u>Contact with eyes:</u> Eye irritation, redness, tearing. *

Ingestion: Consciousness disorders, loss of coordination. If aspirated, it may cause chemical pneumonia. *

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

Symptomatic treatment. If ingested gastric lavage should be performed under the supervision of qualified medical personnel. * Show this safety data sheet to the doctor. *

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Extinguishing powders, carbon dioxide, foam, water - dispersed currents. Water mist, sand*. Do not use a strong jet of water. Do not use foaming agents and water at the same time.*

5.2. Special hazards arising from the substance or mixture

Flammable product. Product vapours are heavier than air and may spread and accumulate above the ground. Vapours may pose a risk of ignition and flame back to the source of the leak. Closed containers exposed to fire or high temperature may explode as a result of pressure build-up inside them.*

During a fire, the following may be released: carbon monoxide, carbon dioxide (CO_2), sulphur oxides.

5.3. Advice for fire fighters

Containers exposed to fire or high temperature should be cooled by spraying with water (risk of bursting the container due to pressure increase), if possible they should be removed from the area of exposure. Do not allow contaminated extinguishing water to enter ground and surface waters, contaminated water should be collected and disposed of in accordance with applicable regulations. Use self-contained breathing apparatus and full protective clothing.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, Precautions equipment and emergency measures

Notify the surroundings about the failure. Evacuate personnel to a safe place. Prevent unauthorized persons from entering the danger zone. Assign persons trained and equipped with appropriate protective equipment to carry out work related to eliminating the effects of the failure. Avoid contact with released product. Avoid contact, breathing vapour / mist / spray. Provide adequate ventilation. * Use the required personal protective measures. *

Remove all sources of ignition (extinguish open fire, do not smoke, do not use sparking tools). *

6.2. Environmental precautions

Prevent spreading or entering sewage systems, watercourses and soil. *

6.3. Methods and materials for containment and cleaning up

Large spills should be collected mechanically (pumped out) for disposal. Collect small spills with non-combustible absorbent material. Collect and transfer to properly labelled containers. Forward for removal/liquidation. Use EX pumps/equipment* *

6.4. Reference to other sections

Personal protection measures - see section 8 of the Sheet. Disposal considerations - see section 13 of the Sheet.

SECTION 7: HANDLING AND STORAGE OF SUBSTANCES AND MIXTURES

7.1. Precautions for safe handling

Avoid contamination of eyes, skin and clothing. Do not breathe vapour / mist / spray. Provide adequate ventilation. Use personal protective equipment. Eliminate ignition sources. Do not use sparkling tools. Take precautions against electrostatic discharge. Use proper grounding procedures. Use EX equipment. Empty containers may have product residues inside and should be handled with care. Open containers slowly having pressure under control. Use in accordance with occupational health and safety rules. Do not eat or drink at the site where the product is used. Wash hands before each break and at the end of work. Take off and wash contaminated clothing before using it again. Uncleaned packages / tanks must not be: cut, drilled, grinded, welded and such activities must not be performed in their vicinity. *

7.2. Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry, cool and well-ventilated area. Protect from high temperature. Protect from direct sunlight. Keep away from heat and ignition sources. Store away from incompatible materials (see section 10). Open containers must be resealed and stored upright to avoid leaks. Containers should be grounded.*

7.3. Special end use (s)

See section 1.2. *

SECTION 8: EXPOSURE CONTROL/PERSONAL PROTECTION MEASURES

8.1. Control parameters

DNEL values*:

Xylene- mixture of	DNEL values:	for workers	inhalation	acute exposure	289 mg/m ³
isomers	DNEL values:	for workers	contact with skin	long-term exposure	180 mg/kg bw/day
	DNEL values:	for workers	inhalation	long-term exposure	77 mg/m³
	DNEL values:	for consumers	inhalation	acute exposure	174 mg/m ³
	DNEL values:	for consumers	contact with skin	long-term exposure	108 mg/kg bw/day



1	DNEL values:	for consumers	inhalation	long-term exposure		14.8 mg/m ³
	DNEL values:	for consumers	ingestion	long-term exposure		1.6 mg/kg bw/day
n-Butyl acetate	DNEL values:	for workers	contact with skin	long-term exposure	systemic effect	7 mg/kg bw/day
-	DNEL values:	for workers	inhalation	long-term exposure	systemic effect	48 mg/m³
	DNEL values:	for general population	contact with skin	long-term exposure	systemic effect	3.4 mg/kg bw/day
	DNEL values:	for general population	inhalation	long-term exposure	systemic effect	12 mg/m ³
	DNEL values:	for general population	ingestion	long-term exposure	systemic effect	3.4 mg/kg bw/day
1-Methoxy-2-	DNEL values:	for workers	inhalation	acute exposure	local effects:	550 mg/m³
propyl acetate	DNEL values:	for workers	contact with skin	long-term exposure	systemic effect	796 mg/kg bw/day
propyl acetate						
propyl acetate	DNEL values:	for workers	contact with skin	long-term exposure	systemic effect	796 mg/kg bw/day
propyl acetate	DNEL values: DNEL values:	for workers for workers	contact with skin inhalation	long-term exposure long-term exposure	systemic effect systemic effect	796 mg/kg bw/day 275 mg/m ³
propyl acetate	DNEL values: DNEL values: DNEL values:	for workers for workers for consumers	contact with skin inhalation contact with skin	long-term exposure long-term exposure long-term exposure	systemic effect systemic effect systemic effect	796 mg/kg bw/day 275 mg/m ³ 320 mg/kg bw/day

PNEC values*:

Xylene- mixture of isomers	PNEC values:	Fresh water	0.327 mg/l	
	PNEC values:	sea water	0.327 mg/l	
	PNEC values:	Sediment (fresh water)	12.46 mg/kg	
	PNEC values:	Sediment (sea water)	12.46 mg/kg	
n-Butyl acetate	PNEC values:	Fresh water	0.18 mg/l	
-	PNEC values:	sea water	0.018 mg/l	
	PNEC values:	intermittent release	0.36 mg/l	
	PNEC values:	sewage treatment plant (STP)	35.6 mg/l	
	PNEC values:	Sediment (fresh water)	0.981 mg/kg	
	PNEC values:	Sediment (sea water)	0.0981 mg/l	
	PNEC values:	Soil	0.0903 mg/kg	
1-Methoxy-2-propyl acetate	PNEC values:	Fresh water	0.635 mg/l	
	PNEC values:	sea water	0.0635 mg/l	
	PNEC values:	intermittent release	6.35 mg/l	
	PNEC values:	sewage treatment plant (STP)	100 mg/l	
	PNEC values:	Sediment (fresh water)	3.29 mg/kg	
	PNEC values:	Sediment (sea water)	0.329 mg/kg	
	PNEC values:	Soil	0.29 mg/kg	

Maximum permissible concentrations:

Xylene- mixture of isomers	the substance with notation"skin"	MPC	100 mg/m ³
		MPIC	200 mg/m ^{3*}
Ethylbenzene	the substance with notation"skin"	MPC	200 mg/m ³
		MPIC	400 mg/m ³
N-butyl acetate		MPC	200 mg/m ^{3*}
		MPIC	950 mg/m ^{3*}
1-Methoxy-2-propyl acetate	the substance with notation"skin"	MPC	260 mg/m ³
		MPIC	520 mg/m ³

Comment*:

NDS according to applicable law.

Labelling the substance with the notation "skin" means that the absorption of the substance through the skin may be just as important as for inhalation exposure.*

Acceptable biological values*- comment*: No data.

Recommended monitoring procedures*: According to applicable regulations.

8.2. Exposure control

Technical control measures*:

General and local exhaust ventilation are recommended to maintain exposure to vapours below recommended limits. Provide eyewash facilities and safety showers near the workstation.

Personal protection measures:

Respiratory protection: Breathing apparatus with a filer. * Self-contained breathing apparatus with an independent air supply. *

Eyes protection: Protective goggles / tight safety glasses.

Hands protection: Protective gloves resistant to solvents.

Other protective equipment: Antistatic protective clothing.

Regulatory references*: Personal protective measures should meet the requirements of applicable law.



General recommendations: Do not eat, drink or smoke when using the product. Wash hands before each break and at the end of work. Take off and wash contaminated clothing before using it again. * Avoid contamination of eyes, skin and clothing. Avoid breathing vapour /gases /mist /spray. *

Environmental control*: Avoid release to the environment.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties*

Physical state Appearance Odour Odour threshold Melting/freezing point [°C] Boiling point or initial boiling point and boiling range [°C] Flammability of the materials* Bottom explosion limit [% V/V] Top explosion limit [% V/V]Flash point [°C] Auto ignition point [°C] Breakdown point[°C] pН Kinematic viscosity* Solubility in water N-octanol/water partition coefficient Vapour pressure at 20°C [hPa] Density or relative density [g/cm3] at 20°C* Relative vapour density Particle characteristics*

9.2. Other information

Information with regard to physical hazard classes*: No data. Other safety features*: No data.

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

No data. *

10.2. Chemical stability

The product is stable under normal conditions. Stable when stored under recommended conditions.*

10.3. Possibility of hazardous reactions

Vapours can form an explosive mixture with air.

Reacts dangerously with*: Strong oxidants.

10.4. Conditions to be avoided

Ignition sources. Heat, fire and sparks. Avoid accumulation of electrostatic charges. High temperature and direct sunlight.

10.5. Incompatible materials

Strong acids and bases, strong oxidants. Peroxides*. Halogens*.

10.6. Hazardous decomposition products

Carbon dioxide and carbon monoxide. Sulphur oxides*.

SECTION 11: TOXICOLOGICAL INFORMATION

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

Acute toxicity through ingestion*:

Xylene- mixture of isomers	ATE	>2000 mg/kg				Calculation method
n-Butyl acetate	LD50	10760 mg/kg	rat	male	OECD 423	
-				female	guidelines	
1-Methoxy-2-propyl acetate	LD50	>5000 mg/kg	rat			Based on available data the classification
						criteria are not met

liquid clear liquid solvent like no data no data available 126 - 149* flammable* 2.2 11 6 27 520 no data available no data available* no data available poor no data available no data available 0.860 - 0.880 no data available not applicable



Acute toxicity through skin*:

Xylene- mixture of isomers	ATE	1100 mg/kg			Calculation method
n-Butyl acetate	LD50	>14000 mg/kg		OECD 402 guidelines	
1-Methoxy-2-propyl acetate	LD50	>5000 mg/kg	Rabbit		Based on available data the classification criteria are not met
	LD50	>2000 mg/kg	rat		Based on available data the classification criteria are not met
Product ready to use	Estimated acute toxicity ATE mix	1641			

Acute toxicity through airways*:

Xylene- mixture of isomers	ATE	11 mg/l					Calculation method
n-Butyl acetate	LC0	23.4 mg/l	4 h	rat	male/	OECD 403	
_		_			female	guidelines	
1-Methoxy-2-propyl acetate	LC0	> 20 mg/l	6 h	rat			Based on available data the classification
		_					criteria are not met
Product ready to use	Estimated acute toxicity	approx. 16					
	ATE mix						

Acute toxicity by other routes of exposure*:

No data.

Skin corrosion/irritation*: irritating effect, based on information on components.

Serious eye damage/eye irritation: causes eye irritation, based on information on components.

Respiratory irritation: Does not cause sensitization, based on information on components.

Skin sensitization: Does not cause sensitization, based on information on components

Mutagenic effect on germ cells: Based on available data the classification criteria are not met

Carcinogenic effect: Based on available data the classification criteria are not met

Harmful effect on reproduction: Based on available data the classification criteria are not met.

Specific target organ toxicity – single exposure: May cause respiratory irritation. May cause drowsiness or dizziness (based on information on components). *

Specific target organ toxicity – repeated exposure: May cause damage to organs through prolonged or repeated exposure. Exposed organs: Liver, kidneys, hearing organs (based on information on components). *

Aspiration hazard: May be fatal if swallowed and enters airways, based on information on components.

Information on possible routes of exposure:

Inhalation. Ingestion. Contact with skin. Contact with eyes.

Symptoms related to the physical, chemical and toxicological characteristics*:

Inhalation: headache, dizziness, nausea, vomiting, impaired consciousness, cough, shortness of breath, difficulty breathing, chest tightness, drowsiness, loss of consciousness.

Ingestion: impaired consciousness, impaired coordination of movements.

Contact with skin: redness, burning and, as a result of long-term exposure, dryness, cracking of the skin.

Contact with eyes: redness, burning, pain, lacrimation.

Delayed and immediate effects and chronic effects from short and long-term exposure*:

Respiratory irritation. Skin irritation. Eye irritation.

Depressant effect on the central nervous system.

If aspirated, it may cause chemical pneumonia.

With long-term exposure, it may cause kidney and liver damage

11.2. Information on other hazards*

No data.

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Te data refer to the components of the mixture*:

Xylene- mixture of isomers	Acute toxicity for aquatic invertebrates	EC50	> 3.4 mg/l	48 h	Ceriodaphnia dubia	OECD 202 guidelines	
	Acute toxicity for fish	LC50	2.6 mg/l	96 h	Oncorhynchus mykiss	OECD 203 guidelines	
	Acute toxicity for algae	EC50	2.2 mg/l	73 h	Pseudokirchneriella subcapitata	OECD 201 guidelines	
	Acute toxicity for bacteria	EC50	> 157 mg/l	3 h	activated sludge	OECD 209 guidelines	
n-Butyl acetate	Toxicity to fish	LC50	18 mg/l	96 h	Pimephales promelas		
-	Acute toxicity for aquatic invertebrates	EC50	44 mg/l	48 h	Daphnia sp.		
	toxicity for aquatic plants	NOEC	200 mg/l	72 h	Desmodesmus subspicatus		
	toxicity for aquatic plants	ErC50	648 mg/l	72 h	Desmodesmus subspicatus		
	Toxicity to activated sludge	IC50	356 mg/l	40 h	Tetrahymena pyriformis		
1-Methoxy-2-propyl	Acute toxicity for fish	LC50	134 mg/l	96 h	Oncorhynchus mykiss		
acetate	Acute toxicity for aquatic invertebrates	EC50	408 mg/l	48 h	Daphnia magna		
	Acute toxicity for algae	ErC50	> 1,000 mg/l	96 h	Pseudokirchneriella subcapitata		static test

12.2. Persistence and degradability

Based on the data of the components of the mixture, the product is probably rapidly biodegradable.



12.3. Bioaccumulative potential Low bioaccumulation potential*.

12.4. Mobility in soil. No data.

12.5. Results of PBT and vPvB assessment.

The components of the mixture do not meet the PBT or vPvB criteria in accordance with Annex XIII of the REACH Regulation 1907/ 2006.

12.6. Endocrine disrupting properties* No data.

12.7. Other hazardous effects*

No data.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Observe the provisions of applicable law.

Waste code:

07 01 04* other organic solvents, washing liquids and mother liquors.

Do not store together with communal waste, prevent from reaching the sewage system. Dispose of by incineration in specially prepared devices complying with the waste disposal regulations.

Packaging waste should be recycled. Packaging that cannot be cleaned should be disposed of in the same manner as the product. *

Empty, uncleaned containers may contain product residues (liquid, vapours) and may constitute a fire / explosion hazard. Proceed with caution. Uncleaned packages / tanks must not be: cut, drilled, grinded, welded and such activities must not be performed in their vicinity.

SECTION 14: TRANSPORT INFORMATION

14.1. UN number or ID number*

1993 ADR: RID/IMDG/ICAO/ADN: no data available

14.2. UN proper shipping name

1993 Flammable liquid N.O.S. (Contains: Xylene- mixture of isomers, butyl acetate)* ADR: RID/IMDG/ICAO/ADN: no data available

14.3. Transport hazard class (-es)

ADR/RID*:

Class 3 Classification code F1 Hazard identification no: 30 Tunnel restriction code: D/E Warning label numbers: 3

IMDG: ICAO: ADN



14.4. Packaging group ADR: TIT RID/IMDG/ICAO/ADN:

no data available

14.5. Environmental hazards

The product is not environmentally hazardous according to the criteria contained in UN model regulations. *

14.6 Special precautions for users No data.

14.7. Bulk transport in accordance with IMO instruments* No data.



SECTION 15: REGULATORY INFORMATION

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

• Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 on REACH as amended.

• 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 (Official Journal of the EU L335/ 1 of December 31 2008 as amended.

• European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR).

15.2. Chemical safety assessment.

Chemical safety assessment of the mixture components has been carried out.

SECTION 16: OTHER INFORMATION

Explanation of abbreviations and acronyms used in the MSDS*: Expl. - Explosives. Flam. Gas - Flammable gas Flam. Aerosol - flammable aerosol. Ox. Gas - Oxidizing gas. Press. Gas - Pressurized gas. Flam. Liq. - Flammable liquid Flam. Sol. - Flammable solid Self-react. - Self-reactive substances or mixtures Pyr. Liq. - Pyrophoric liquids. Pyr. Sol. - Pyrophoric solids. Self-heat. - Self-heating substance or mixture. Water-react. - Substances or mixtures which emit flammable gases in contact with water Ox. Liq. - Oxidizing liquids. Ox. Sol. - Oxidizing solids. Org. Perox. - Organic peroxides, type A Met. Corr. - Substance or mixture corrosive to metals Acute Tox. - Acute toxicity. Skin Corr. - Skin corrosion. Skin Irrit. - Skin irritation. Resp. Sens. - Respiratory irritation. Skin Sens. - Skin sensitization. Muta. - Mutagenic effect on germ cells, cat.1A Carc. - Carcinogenicity: Repr. - Reproduction toxicity kat.1A. STOT SE - Specific target organ toxicity STOT RE - Specific target organ toxicity - repeated exposure, cat.1 Asp. Tox. - Aspiration hazard. Aquatic Acute - Hazardous to the aquatic environment, acute hazard Aquatic Chronic - Hazardous to the aquatic environment - chronic hazard Ozone - Posing a threat to the ozone laver Effects on lactation or harmful effects on breastfed children Lact. MPC Maximum permissible concentrations MPIC Maximum Permissible Instantaneous Concentration NDSP Maximum Permissible Ceiling Concentration vPvB (substance, which is) very Persistent and very Bio-accumulative PBT (substance) Persistent, Bio-accumulative and toxic PNEC Predicted no effect concentration DNEL Derived no effect level of Concentration. - Dose at which death of 50% of test animals is observed. LD50 - Concentration at which death of 50% of test animals is observed LC50 - The lowest concentration that produces an observable effect LOEC NOEL - The highest concentration of a substance at which no effects are observed - Maximum Concentration at which no effects are observed NOEC Concentration at which an X % changes e.g. decrease in growth or growth rate is observed ECX ADR European Agreement concerning the International Carriage of Dangerous Goods by Road ADN European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways RID Regulations for the international carriage of dangerous goods by rail IMDG International Marine Code of Dangerous Goods ICAO/ IATA International Air Transport Association UVCB Substances of unknown or variable composition, complex reaction products or biological materials.

List of phrases indicating the type of hazard and conditions of safe use*:

(organs of hearing) (kidneys) (liver)

EUH066 Repeated exposure may cause skin dryness or cracking.

H226 Flammable liquid and vapour

H304 May be fatal if swallowed and enters airways

H312 Harmful in contact with skin

H315 Causes skin irritation

H319 Causes eye irritation

H222 Harmful if inhold

H332 Harmful if inhaled

H335 May cause respiratory irritation

H336 May cause drowsiness or dizziness



H373 May cause damage to organs through prolonged or repeated exposure.

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P241 Use explosion-proof electrical/ventilating/light/.../equipment.*

P260 Avoid breathing dust/fume/gas/mist/vapours/spray.

P264a Wash hands thoroughly after handling

P271 Use only outdoors or in a well-ventilated area.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P301+ P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician/...

P302+P352 IF ON SKIN: Wash skin with plenty of water.

P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.

P312 Call a POISON CENTER/doctor if you feel unwell/...

P331 DO NOT induce vomiting.

P501a Dispose of contents/container to a licensed waste collector

Training*:

Persons involved in the trade of the product should be trained in handling, safety and hygiene. Workers / vehicle drivers should undergo training and obtain an appropriate certificate in accordance with the requirements of ADR regulations.*

The above information is based on the current state of knowledge and applies to the product as it is used. Data on this product is presented in order to comply with safety requirements, not to guarantee its specific properties.

If the conditions of use of the product are not under the manufacturer's control, the user is responsible for the safe use of the product. The employer is obliged to inform all the workers who have contact with the product about the hazards and personal protection measures specified in this Material Safety Data Sheet.

Changes in the Sheet:

Update of sections:

9: rewording of sub-section 9.1: Information on basic physical and chemical properties

11: rewording of sub-section 11.1: Information on the hazard classes defined in Regulation (EC) No 1272/ 2008: added subsection 11.2. Information on other hazards

12: new subsection 12.6: Endocrine disrupting properties.

14: rewording of sub-section 14.1: UN number or ID number; rewording of sub-section 14.7: Sea transport in bulk in accordance with IMO instruments.

Changes in the content of sections:

1.1, 2.1, 2.2, 3.2, 4.1, 4.2, 4.3, 5.1, 5.2, 6.1, 6.2, 6.3, 7.1, 7.2, 7.3, 8.1, 8.2, 9.1, 9.2, 10.1, 10.2, 10.4, 10.5, 10.6, 11.1, 11.2, 12.1, 12.3, 12.6, 12.7, 13.1, 14.1, 14.2, 14.3, 14.5, 14.7, 15.1, 16. General update.

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