

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

1.1. Product identification

STEEL WHEEL COATING 1K
UFI: NPM0-V00S-600P-9D69

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

Silver phthalic enamel with a metallic effect, intended for painting metal car rims.
For professional use in car refinish.

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 regulation (EC) no 1272/2008.

Flam. Liq. 3	Flammable liquids, cat. 3, H226 Flammable liquid and vapour
Skin Irrit. 2	Skin irritation, cat. 2, H315 Causes skin irritation
Eye Irrit. 2	Eye irritation, cat. 2 H319 Causes eye irritation
STOT SE 3	Specific target organ toxicity – single exposure, cat. 3, narcotic effect, H336 May cause drowsiness or dizziness
STOT RE 3	Specific target organ toxicity – repeated exposure, cat. 2, H373 May cause damage to organs through prolonged or repeated exposure

2.2. Label elements

Contains:
Xylene, hydrocarbons C9-C11, n-alkanes, isoalkanes, cycloalkanes, <2% aromatics

Pictograms:



GHS02 GHS07 GHS08

Signal word: **Warning.**

Hazard statements:

H226 Flammable liquid and vapour.
H315 Causes skin irritation.
H319 Causes eye irritation.
H336 May cause drowsiness or dizziness.
H373 May cause damage to organs through prolonged or repeated exposure.

Precautionary statements:

Prevention:

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260 Do not breathe mist/vapours/spray.
P280 Wear protective gloves/protective clothing/eye protection/face protection.

Reaction:

P337+P313 If eye irritation persists: get medical advice/attention.
P314 Get medical advice/attention if you feel unwell.

Storage:

P403+P235 Store in a well ventilated place. Keep cool.

Disposal:
P501 Dispose of contents/container to: landfill for hazardous substances.

Additional information on the label:
EUH066 Repeated exposure may cause skin dryness or cracking.

2.3. Other hazards

No data.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances

Not applicable.

3.2. Mixtures

Product identification: STEEL WHEEL COATING 1K

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

Hydrocarbons C9-C11, n-alkanes, isoalkanes, cycloalkanes, <2% aromatics

30-35%
EC: 919-857-5
CAS: ---
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.

Xylene

14-16%
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, H332; Acute Tox. 4, H312; Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335; STOT RE 2, H373; Asp. Tox. 1, H304.

Aluminium powder

<7%
EC: 231-072-3
CAS: 7429-90-5
Index no: ---
Registration no: 01-2119529243-45-xxx
Classification 1272/2008/EC:
Flam. Liq. 2, H225; Acute Tox. 4, H332; STOT RE 2, H373; Asp. Tox. 1, H304.

Ethylbenzene

<3%
EC: 202-849-4
CAS: 100-41-4
Index no: 601-023-00-4
Registration no: ---
Classification 1272/2008/EC:
Flam. Liq. 2, H225; Acute Tox. 4, H332; STOT RE 2, H373; Asp. Tox. 1, H304.

Hydrocarbons C9, aromatics

<2%
EC: 919-668-5
CAS: 64742-95-6
Index no: ---
Registration no: 01-2119455851-35-xxxx
Classification 1272/2008/EC:
Flam. Liq. 3, H226; STOT SE 3, H335; STOT SE 3, H336; Asp. Tox. 1, H304; Aquatic Chronic 2, H411; EUH066.

2-Butanone oxime

<0.45%
EC: 202-496-6

CAS: 96-29-7
Index no: 616-014-00-0
Registration no: 01-2119539477-28-xxxx
Classification 1272/2008/EC:
Carc. 2, H351; Acute Tox. 4, H312; Eye Dam. 1, H318; Skin Sens. 1, H317.

2-ethylhexanoic acid zirconium salt

<0.4%
EC: 245-018-1
CAS: 22464-99-9
Index no: ---
Registration no: 01-2119979088-21-xxxx
Classification 1272/2008/EC:
Repr. 2, H361d.

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

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

Airways:
Remove the injured person from the area of exposure, provide access to fresh air. In case of respiratory arrest perform artificial respiration. Provide medical aid if needed.

Ingestion:
Rinse mouth with water. Do not give anything to an unconscious person to swallow. Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Call for medical help.

Contact with eyes:
Remove contact lenses. Rinse with plenty of water with the eyelid held wide open, avoiding a strong water jet. If necessary consult an ophthalmologist.

Contact with skin:
Take off contaminated clothes and shoes. Wash skin with plenty of water and soap. If skin irritation occurs, consult a doctor.

4.2. Most important symptoms both acute and delayed

High doses of vapours may cause: dizziness, drowsiness, headache, loss of consciousness.
Contact with skin may cause allergic reactions and its dryness and cracking.

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

Symptomatic treatment. Provide the doctor with the product safety data sheets. First aiders should wear medical gloves.

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media: carbon dioxide CO₂, extinguishing powders, foam resistant to alcohol, water mist.
Unsuitable extinguishing media: full jet of water.

5.2. Special hazards arising from the substance or mixture

Flammable liquid and vapour. Combustion may form carbon oxides and other toxic gases. Vapours may ignite again.

5.3. Advice for firefighters

Use self-contained breathing apparatus and full protective clothing.
Tanks exposed to high temperature should be cooled with water from a safe distance and, if possible, removed from the endangered area. Collect the extinguishing water. Prevent fire-fighting water from entering surface or ground water.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency measures

Evacuate personnel to a safe place. Eliminate ignition sources.
Avoid breathing vapour / mist / spray.
Provide adequate ventilation.
Avoid contamination of eyes, skin and clothing. Wear protective clothing and equipment.

6.2. Environmental precautions

Prevent from entering sewage system, surface water, ground water and soil. In the event of serious contamination of a watercourse, sewage system or soil, notify the appropriate administrative and control authorities and rescue organizations.

6.3. Methods and materials for containment and cleaning up

Eliminate the source of the leak. Collect small spills with non-combustible absorbent material. Collect large spills mechanically. Collect contaminated soil.

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 open flames and high temperature. Work in well ventilated rooms. Do not breathe vapours or spray. Avoid contamination of eyes, skin and clothing. Do not eat or drink at the site where the product is used. Wash hands before each break and at the end of work. Observe the rules of personal hygiene.

7.2. Conditions for safe storage, including any incompatibilities

Store in tightly closed, original containers. Store in a cool and well ventilated place. Away from the sources of fire and heat. Avoid electrostatic discharge.

7.3. Special end use (s)

No data.

SECTION 8: EXPOSURE CONTROL/PERSONAL PROTECTION MEASURES

8.1. Control parameters

Maximum permissible concentrations:

SUBSTANCE	CAS	MPC (mg/m³)	MPIC (mg/m³)	MPCC (mg/m³)	Notes:*
xylene	1330-20-7	100	200	-	skin
aluminium powder inhalable fraction	7429-90-5	2.5	-	-	-
ethylbenzene	100-41-4	200	400	-	skin

*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.

CAS number	1330-20-7
Absorbed substance	xylene
Marked substance	methyl hippuric acid
Biological material	urine*
DSB values	0.75 g/g creatinine

*The sample is collected once, at the end of the daily exposure on any given day.

DNEL values:

Hydrocarbons C9-C11, n-alkanes, isoalkanes, cycloalkanes, <2% aromatics

DNEL value, workers, inhalation, chronic exposure – systemic effect: 871 mg/m³

DNEL value, workers, skin, chronic exposure – systemic effect: 208 mg/kg m.

DNEL value, consumers, skin, chronic exposure – systemic effect: 125 mg/kg b. w./day

DNEL value, consumers, inhalation, chronic exposure – systemic effect: 185 mg/m³

DNEL value, consumers, ingestion, chronic exposure – systemic effect: 125 mg/kg b. w./day

Xylene

DNEL value, workers, skin, long-term exposure – systemic effect: 212 mg/kg b. w./day

DNEL value, workers, inhalation, acute exposure – local effect: 442 mg/m³

DNEL value, workers, inhalation, acute exposure – systemic effect: 442 mg/m³

DNEL value, workers, inhalation, long-term exposure – local effect: 221 mg/m³

DNEL value, workers, inhalation, long-term exposure – systemic effect: 221 mg/m³

DNEL value, consumers, ingestion, long-term exposure – systemic effect: 12.5 mg/kg b. w./day

DNEL value, consumers, skin, long-term exposure – systemic effect: 125 mg/kg b. w./day

DNEL value, consumers, inhalation, acute exposure – local effect: 260 mg/m³

DNEL value, consumers, inhalation, acute exposure – systemic effect: 260 mg/m³

DNEL value, consumers, inhalation, long-term exposure – local effect: 65.3 mg/m³

DNEL value, consumers, inhalation, long-term exposure – systemic effect: 65.3 mg/m³

Aluminium powder

DNEL value, workers, inhalation, systemic effect, long-term exposure: 3.72 mg/m³

DNEL value, workers, inhalation, local effect, long-term exposure: 3.72 mg/m³

DNEL value, consumers, ingestion, long-term exposure: 3.95 mg/kg b. w./day

Ethylbenzene

DNEL value, workers, skin, long-term exposure – systemic effect: 180 mg/kg b. w./day

DNEL value, workers, inhalation, acute exposure – local effect: 293 mg/m³

DNEL value, workers, inhalation, long-term exposure – systemic effect: 77 mg/m³

DNEL value, consumers, inhalation, long-term exposure – systemic effect: 15 mg/m³

DNEL value, consumers, ingestion, long-term exposure – systemic effect: 1.6 mg/kg b. w./day

2-Butanone oxime

DNEL value, workers, skin, long-term exposure: 1.3 mg/kg b. w./day
DNEL value, workers, inhalation, long-term exposure: 9 mg/m³
DNEL value, workers, inhalation, long-term exposure – local effect: 3.33 mg/m³
DNEL value, consumers, skin, short-term exposure: 1.5 mg/kg m.
DNEL value, consumers, skin, long-term exposure: 0.78 mg/kg b. w./day
DNEL value, consumers, inhalation, long-term exposure: 2.7 mg/m³
DNEL value, consumers, inhalation, local effect: 2 mg/kg b. w./day

2-ethylhexanoic acid zirconium salt

DNEL value, workers, inhalation, long-term exposure – systemic effect: 32.97 mg/m³
DNEL value, workers, skin, long-term exposure – systemic effect: 6.49 mg/kg b. w./day
DNEL value, consumers, inhalation, long-term exposure – systemic effect: 8.13 mg/m³
DNEL value, consumers, skin, long-term exposure – systemic effect: 3.25 mg/kg b. w./day
DNEL value, consumers, ingestion, long-term exposure – systemic effect: 4.51 mg/kg b. w./day

PNEC values:

Xylene

PNEC value, fresh water: 0.327 mg/l
PNEC value, marine water: 0.327 mg/l
PNEC value, sediment (fresh water): 12.46 mg/kg d. m. of sediment
PNEC value, sediment (marine water): 12.46 mg/kg d. m. of sediment
PNEC value biological sewage treatment plant: 6.58 mg/dm³
PNEC value soil: 2.31 mg/kg d. m. of soil

Aluminium powder

PNEC value, water: 48-17800 µg/l

Ethylbenzene

PNEC value, fresh water: 0.1 mg/l
PNEC value, marine water: 0.01 mg/l
PNEC value, sediment (fresh water): 13.7 mg/kg d. m. of sediment
PNEC value, sediment (marine water): 1.37 mg/kg d. m. of sediment
PNEC value biological sewage treatment plant: 9.6 mg/dm³
PNEC value soil: 2.68 mg/kg d. m. of soil

2-Butanone oxime

PNEC value, water: 0.256 mg/l
PNEC value, intermittent release: 0.118 mg/l
PNEC value sewage treatment plant: 177 mg/l

2-ethylhexanoic acid zirconium salt

PNEC value, fresh water: 0.36 mg/l
PNEC value, marine water: 0.036 mg/l
PNEC value, sediment (fresh water): 6.37 mg/kg d. m. of sediment
PNEC value, sediment (marine water): 0.637 mg/kg d. m. of sediment
PNEC value biological sewage treatment plant: 71.7 mg/dm³
PNEC value soil: 1.06 mg/kg d. m. of soil

8.2. Exposure control

Technical control measures:

General and local exhaust ventilation. Explosion-proof electrical and ventilation installation.

Personal protective measures:

Eye or face protection:

Protective goggles / tight safety glasses.

Skin protection:

Gloves resistant to solvents. Nitrile gloves or comparable material during full contact (thickness >0,38 mm, penetration time >480 min). As the product is a mixture consisting of several substances, the resistance of the materials from which the gloves are made cannot be calculated in advance and should therefore be checked before use. Information about the penetration time of the substance should be obtained from the glove manufacturer.

Chemical-resistant, anti-electrostatic protective clothing.

Respiratory protection:

With insufficient ventilation, a half mask with an organic vapor filter of type A or better.

Environmental control

Prevent the product from entering into sewage system, water and soil.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical state	liquid
Colour	according to specification
Odour	characteristic
Ph	not applicable
Melting/freezing point	no data available
Boiling point	150-200°C
Flammability of the product	flammable liquid
Explosion limits (% v/v)	no data available
Flash point	31°C
Auto ignition point	app.250°C
Breakdown point	no data available
Kinetic viscosity (mm ² /s)	>100
Solubility	no data available
N-octanol/water partition coefficient	no data available
Vapour pressure	no data available
Density (g/cm ³)	app. 0.93
Relative vapour density	no data available
Particles characteristics	no data available

9.2. Other information

No data.

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

No experimental data available on the reactivity of the product under conditions of normal use.

10.2. Chemical stability

The product is stable when stored as intended and with the recommended storage conditions.

10.3. Possibility of hazardous reactions

Vapours can form an explosive mixture with air.

10.4. Conditions to be avoided

High temperatures, open flames and other heat sources.

10.5. Incompatible materials

Avoid contact with strong oxidants.

10.6. Hazardous decomposition products

They do not occur if properly stored and used As a result of thermal decomposition, carbon monoxide and other toxic gases are generated.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

There are no experimental data on the toxicological properties of the product. The assessment was based on the data concerning the components included in the product.

Acute toxicity

Hydrocarbons C9-C11, n-alkanes, isoalkanes, cycloalkanes, <2% aromatics

DL50 (rat, oral)	>5000 mg/kg
CL50 (rat, inhalation)	>5000 l/4h
DL50 (rabbit, skin)	>5000 mg/kg
Xylene	
LD50 (rat, oral)	>2000 mg/kg
LC50 (rat, inhalation)	>20 mg/dm ³ /4h
LD50 (rabbit, skin)	>2000 mg/kg

Aluminium powder

LD50 (rat, oral)	15900 mg/kg
NOAEC (rat, inhalation)	10 mg/m ³
Ethylbenzene	
LD50 (rat, oral)	3500 mg/kg
LC50 (rat, inhalation)	17.8 mg/m ³ /4h
LD50 (skin)	15400 mg/kg

TCL0 (human, inhalation)	442 mg/m ³ /8h
Hydrocarbons C9, aromatics	
LD50 (rat, oral)	8400 mg/kg
2-Butanone oxime	
LD50 (rat, oral)	2326 mg/kg
LC50 (rat, inhalation, 4h)	>13.2 mg/l
LD50 (rabbit, skin)	1000 mg/kg
LOAEL (rat, oral)	25 mg/kg b.w/day
LOAEL (rat, inhalation)	10.8 mg/m ³
2-ethylhexanoic acid zirconium salt	
LD50 (rat, oral)	>5000 mg/kg
LD50 (rabbit, skin)	>5000 mg/kg

Skin corrosion/irritation:
The mixture is not classified as causing skin irritation.

Serious eye damage/eye irritation:
The mixture is classified as causing eye irritation.

Allergic effect on airways or skin:
The mixture is not classified as having allergic effect on skin. No data confirming the hazard.

Mutagenic effect on germ cells:
The mixture is not classified as mutagenic. No data confirming the hazard.

Carcinogenic effect:
The mixture is not classified as carcinogenic. No data confirming the hazard.

Harmful effect on reproduction:
The mixture is not classified as having harmful effect on reproduction. No data confirming the hazard.

Specific target organ toxicity – single exposure:
The mixture is classified as toxic to target organs – single exposure. May cause drowsiness or dizziness.

Specific target organ toxicity – repeated exposure:
The mixture is classified as toxic to target organs – repeated exposure.

Aspiration hazard:
The mixture is not classified as causing aspiration hazard. No data confirming the hazard.

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

There are no experimental data on the toxicological properties of the product. The assessment was based on the data concerning the components included in the product.

Xylene	
Acute toxicity to fish	LC50 2.6 mg/l/96h
Acute toxicity to Daphnia (Daphnia magna) 1 mg/l/48h	
Acute toxicity to algae (stunted growth)	EC50 2.2 mg/l/72h
Toxicity to microorganisms	NOEC 157 mg/l/3h
Chronic toxicity to fish	NOEC >1.3 mg/l/56days
Chronic toxicity to daphnia (Daphnia magna) 0.96 mg/l/7days	
Ethylbenzene	
Toxicity to fish (Pimephales promelas)	LC50 49 mg/l/96h
Acute toxicity to aquatic invertebrates (Daphnia magna)	EC50 184 mg/l/24h
2-Butanone oxime ecotoxicity (Oryzias latipes)	LD50 > 100 mg/l/96h
Ecotoxicity freshwater fish	LC50 > 100 mg/l
Ecotoxicity (Daphnia magna)	EC50 201 mg/l/48h
Ecotoxicity freshwater algae	EC50/LC50 11.8 mg/l
Ecotoxicity freshwater algae	EC10/LC10 2.56 mg/l
Ecotoxicity freshwater fish	EC10/LC10/NOEC 50 mg/l
Ecotoxicity (Daphnia magna)	NOEC ≥ 100 mg/l/21 days
Ecotoxicity freshwater invertebrates	NOEC 100 mg/l 100 mg/l
2-ethylhexanoic acid zirconium salt	
Toxicity to fish	LC50 >100 mg/l
Aquatic invertebrates	EC50 85.4 mg/l

algae ErC50 49.3 mg/l

12.2. Persistence and degradability

No data.

12.3. Bioaccumulative potential

Ethylbenzene– log Pow 3.15

12.4. Mobility in soil

No data.

12.5. Results of PBT and vPvB assessment

No data.

12.6. Endocrine disrupting properties

No data.

12.7. Other hazardous effects

No data.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Used packaging and waste product should be delivered to authorised companies.

Dispose of according to applicable local and official waste regulations – see section 15.

Waste code:

08 01 11* Waste paints and varnishes containing organic solvents or other dangerous substances.
15 01 10* Packaging containing residues of or contaminated by dangerous substances (e.g. pesticides of I and II class of toxicity – very toxic or toxic).

Waste container code:

15 01 02 Plastic packaging.
15 01 04 Metallic packaging.

SECTION 14: TRANSPORT INFORMATION

14.1. UN number

ADR 1263

14.2. UN proper shipping name

PAINT

14.3. Transport hazard class (-es)

3

14.4. Packaging group

III

14.5. Environmental hazards

No.

14.6. Special precautions for users

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL 73/78 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

- Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC as amended.
- 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 as amended.

15.2. Chemical safety assessment

Chemical Safety Assessment has not been carried out for the mixture.

SECTION 16: OTHER INFORMATION

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

Flam. Liq. 2	Flammable liquids, cat. 2
H225	Flammable liquid and vapour.
Flam. Liq. 3	Flammable liquids, cat. 3
H226	Flammable liquid and vapour
Acute Tox. 4	Acute toxicity, cat. 4
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
Skin Irrit. 2	Skin irritation, cat. 2
H315	Causes skin irritation
Eye Dam. 1	Serious eye damage, cat. 1
H318	Causes serious eye damage.
Eye Irrit. 2	Eye irritation, cat. 2
H319	Causes eye irritation
Skin Sens. 1	Skin sensitization, cat. 1
H317	May cause an allergic skin reaction.
Carc. 2	Carcinogenicity, cat. 2
H351	Suspected of causing cancer.
Repr. 2	Reproduction toxicity, cat. 2
H361d	Suspected of damaging the unborn child.
STOT SE 3	Specific target organ toxicity – single exposure, cat. 3
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness
STOT RE 2	Specific target organ toxicity – repeated exposure, cat. 2
H373	May cause damage to organs through prolonged or repeated exposure
Asp. Tox. 1	Aspiration hazard, cat 1
H304	May be fatal if swallowed and enters airways.
Aquatic Chronic 2	Hazardous to the aquatic environment, kat. 2
H411	Toxic to aquatic life with long-lasting effects.
Flam. Sol. 1	Flammable solids, cat. 1
H228	Flammable solid.

Explanation of abbreviations and acronyms:

EC	reference number used in the European Union to identify hazardous substances, in particular those registered in the European Inventory of Existing Chemical Substances (EINECS), or in European List of Notified Chemical Substances (ELINCS) or the list of chemicals listed in 'No-longer polymers'.
CAS	a number assigned to a chemical substance in Chemical Abstracts Service
MPC	maximum permissible concentration at the workplace - the highest permissible weighted average concentration, whose impact on the employee during 8 hours of work, throughout the entire period of his professional activity, should not cause changes in his state of health and the state of health of his future generations.
MPIC	maximum permissible instantaneous concentration - the maximum permissible instantaneous concentration set as an average value that should not cause negative changes in the state of health of the worker and the state of health of his future generations, if it persists in the work environment for no more than 30 minutes during a shift.
MPCC	concentration value which, due to the threat to the employee's health or life, cannot be exceeded in the work environment at any time.
vPvB	substance, which is very Persistent and very Bio-accumulative
PBT	substance, which is Persistent, Bio-accumulative and toxic
DL50	lethal dose - the dose at which deaths of 50% of test animals are observed over a specified period of time
CL50	lethal concentration - the concentration at which deaths of 50% of the test animals are observed over a specified period of time
CE50	effective concentration - the effective concentration of the substance causing a response at 50% of the maximum value
DNEL	no-harmful level for human health - the level of exposure to a substance not harmful to human health
PNEC	predicted no-effect concentration - the concentration of the substance below which no harmful effects for the environment are expected
PBC	permissible concentration in biological material - the highest permissible level of a specific factor or its metabolite in the relevant biological material or the highest permissible value of an appropriate indicator determining the impact of a chemical agent on the body
BCF	bioconcentration factor - the ratio of the concentration of a substance in the body to its concentration in water at equilibrium
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
UN number	four-digit material identification number in the UN Hazardous Materials List, derived from the UN Model Regulations, to which the individual material, mixture or object is classified

Classification was made using the calculation method in accordance with the classification rules contained in Regulation No. 1272/2008 / EC

Recommended use:

The product is intended for professional use only.

Other data sources:

ECHA European Chemicals Agency

TOXNET Toxicology Data Network

Other information:

The product described in the safety data sheet should be stored and used in accordance with good industrial practice and in accordance with all legal regulations. The information and recommendations contained in the safety data sheet are based on our general experience and our latest knowledge, and have been presented in good faith. No part of this publication can be treated as guarantee, warranty or position directly, indirectly or otherwise. In all cases, it is the user's responsibility to determine and verify that the information and recommendations are accurate, sufficient and relevant to the particular case. The user is responsible for creating the conditions for the safe use of the product and he is responsible for the consequences of incorrect use of this product.

Training:

Before working with the product, the user should read the Safety Data Sheet and the OHS rules regarding the handling of chemicals, and in particular undergo appropriate workplace training.

Changes in the Sheet compared to the previous version: ---

Sheet number: 08-0P3L-1021-V1