KMK 1401 METAL PUTTY

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier: KMK 1401 METAL PUTTY

Other means of identification:

Not relevant

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

Relevant uses: Filler for repairing surfaces. For professional users/industrial user only.

Uses advised against: All uses not specified in this section or in section 7.3

1.3 Details of the supplier of the safety data sheet:

Kimakem srl
Via Don G. Fortuna 82
36050 Monteviale - Vicenza - Italia
Phone: +39 0444 1220020
info@kimakem.com

1.4 Emergency telephone number: +39 0444 1220020 (Monday to Friday 8:30 -17:30 GMT +1:00)

SECTION 2: HAZARDS IDENTIFICATION **

2.1 Classification of the substance or mixture:

CLP Regulation (EC) No 1272/2008:

Classification of this product has been carried out in accordance with CLP Regulation (EC) No 1272/2008.

Eye Irrit. 2: Eye irritation, Category 2, H319
Flam. Liq. 3: Flammable liquids, Category 3, H226
Repr. 2: Reproductive toxicity, Category 2, H361d
Skin Irrit. 2: Skin irritation, Category 2, H315
STOT RE 1: Specific target organ toxicity — Repeated exposure, Hazard Category 1 (Inhalation), H372
STOT SE 3: Respiratory tract toxicity, single exposure, Category 3, H335

2.2 Label elements:

CLP Regulation (EC) No 1272/2008:

Danger

Hazard statements:

H226 - Flammable liquid and vapour.
H315 - Causes skin irritation.
H319 - Causes serious eye irritation.
H335 - May cause respiratory irritation.
H361d - Suspected of damaging the unborn child.
H372 - Causes damage to organs through prolonged or repeated exposure (Inhalation).

Precautionary statements:

P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P280: Wear protective gloves/face protection/protective clothing/respiratory protection/protective footwear.
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313: IF exposed or concerned: Get medical advice/attention.
P370+P378: In case of fire: Use Foam extinguisher (AB), Dry Chemical Powder (ABC) Fire Extinguisher, Carbon dioxide extinguisher (BC) to extinguish.
P501: Dispose of contents/container in accordance with regulations on hazardous waste or packaging and packaging waste respectively.

Substances that contribute to the classification

styrene

2.3 Other hazards:

Product does not meet PBT/vPvB criteria
Endocrine-disrupting properties: The product does not meet the criteria.

*** Changes with regards to the previous version*

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SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS **

3.1 Substance:

Non-applicable

3.2 Mixture:

Chemical description: Mixture composed of additives, aggregates, pigments and resins in solvents

Components:

In accordance with Annex II of Regulation (EC) No 1907/2006 (point 3), the product contains:

Identification	Chemical name/Classification		Concentration
CAS: 12001-26-2 EC: Non-applicable Index: Non-applicable REACH: Non-applicable	**Mica (RCS < 1%)[1]**	Not classified	**25 - <50 %**
	Regulation 1272/2008		
CAS: 100-42-5 EC: 202-851-5 Index: 601-026-00-0 REACH: 01-2119457861-32-XXXX	**styrene[2]**	Self-classified	**10 - <25 %**
	Regulation 1272/2008	Acute Tox. 4: H332; Aquatic Chronic 3: H412; Asp. Tox. 1: H304; Eye Irrit. 2: H319; Flam. Liq. 3: H226; Repr. 2: H361d; Skin Irrit. 2: H315; STOT RE 1: H372; STOT SE 3: H335 - Danger	
CAS: 7429-90-5 EC: 231-072-3 Index: 013-002-00-1 REACH: 01-2119529243-45-XXXX	**Aluminium powder (stabilised)[3]**	Self-classified	**1 - <2,5 %**
	Regulation 1272/2008	Flam. Sol. 1: H228 - Danger	
CAS: 7631-86-9 EC: 231-545-4 Index: Non-applicable REACH: 01-2119379499-16-XXXX	**Silicon dioxide (RCS < 1%)[1]**	Not classified	**0,5 - <1 %**
	Regulation 1272/2008		
CAS: 14808-60-7 EC: 238-878-4 Index: Non-applicable REACH: Non-applicable	**Quartz (RCS < 1 %)[1]**	Not classified	**0,1 - <0,3 %**
	Regulation 1272/2008		
CAS: 141-78-6 EC: 205-500-4 Index: 607-022-00-5 REACH: 01-2119475103-46-XXXX	**Ethyl acetate[1]**	ATP CLP00	**0,01 - <0,1 %**
	Regulation 1272/2008	Eye Irrit. 2: H319; Flam. Liq. 2: H225; STOT SE 3: H336; EUH066 - Danger	

[1] Substance with a Union workplace exposure limit
[2] Substances presenting a health or environmental hazard which meet criteria laid down in Regulation (EU) No. 2020/878
[3] Voluntarily-listed substance failing to meet any of the criteria set out in Regulation (EU) No. 2020/878

To obtain more information on the hazards of the substances consult sections 11, 12 and 16.

Other information:

Identification	Specific concentration limit
Aluminium powder (stabilised) CAS: 7429-90-5 EC: 231-072-3	% (w/w) >=50: Flam. Sol. 1 - H228

*** Changes with regards to the previous version*

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures:

The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the SDS of this product.

By inhalation:

Remove the person affected from the area of exposure, provide with fresh air and keep at rest. In serious cases such as cardiorespiratory failure, artificial resuscitation techniques will be necessary (mouth to mouth resuscitation, cardiac massage, oxygen supply, etc.) requiring immediate medical assistance.

By skin contact:

Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

By eye contact:

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SECTION 4: FIRST AID MEASURES (continued)

Rinse eyes thoroughly with water for at least 15 minutes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, in which case removal could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS for the product.

By ingestion/aspiration:

Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. Keep the person affected at rest. Rinse out the mouth and throat, as they may have been affected during ingestion.

4.2 Most important symptoms and effects, both acute and delayed:

Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of any immediate medical attention and special treatment needed:

Not relevant

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media:

Suitable extinguishing media:

Foam extinguisher (AB), Dry Chemical Powder (ABC) Fire Extinguisher, Carbon dioxide extinguisher (BC)

Unsuitable extinguishing media:

Water jet

5.2 Special hazards arising from the substance or mixture:

As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Advice for firefighters:

Depending on the magnitude of the fire it may be necessary to use full protective clothing and self-contained breathing apparatus (SCBA). Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...) in accordance with Directive 89/654/EC.

Additional provisions:

Act in accordance with the Internal Emergency Plan and the Information Sheets on actions to take after an accident or other emergencies. Eliminate all sources of ignition. In case of fire, cool the storage containers and tanks for products susceptible to combustion, explosion or BLEVE as a result of high temperatures. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:

For non-emergency personnel:

Isolate leaks provided that there is no additional risk for the people performing this task. Evacuate the area and keep out those without protection. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Above all prevent the formation of any vapour-air flammable mixtures, through either ventilation or the use of an inert medium. Remove any source of ignition. Eliminate electrostatic charges by interconnecting all the conductive surfaces on which static electricity could form, and also ensuring that all surfaces are connected to the ground.

For emergency responders:

Wear protective equipment. Keep unprotected persons away. See section 8.

6.2 Environmental precautions:

It is recommended to avoid environmental spillage of both the product and its container.

6.3 Methods and material for containment and cleaning up:

It is recommended:

Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:

See sections 8 and 13.

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SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:

A.- General precautions for safe use

Comply with the current legislation concerning the prevention of industrial risks. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

B.- Technical recommendations for the prevention of fires and explosions

Transfer in well ventilated areas, preferably through localized extraction. Fully control sources of ignition (mobile phones, sparks,…) and ventilate during cleaning operations. Avoid the existence of dangerous atmospheres inside containers, applying inertization systems where possible. Transfer at a slow speed to avoid the creation of electrostatic charges. Against the possibility of electrostatic charges: ensure a perfect equipotential connection, always use groundings, do not wear work clothes made of acrylic fibres, preferably wearing cotton clothing and conductive footwear. Comply with the essential security requirements for equipment and systems defined in Directive 2014/34/EC (ATEX 100) and with the minimum requirements for protecting the security and health of workers under the selection criteria of Directive 1999/92/EC (ATEX 137). Consult section 10 for conditions and materials that should be avoided.

C.- Technical recommendations on general occupational hygiene

PREGNANT WOMEN SHOULD NOT BE EXPOSED TO THIS PRODUCT. Transfer in designated areas that comply with the necessary safety conditions (emergency showers and eyewash stations in close proximity), using personal protection equipment, especially on the hands and face (See section 8). Limit manual transfers to small amounts only. Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks

It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:

A.- Specific storage requirements

Minimum Temp.: 5 ºC

Maximum Temp.: 30 ºC

B.- General conditions for storage

Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):

Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:

Substances whose occupational exposure limits have to be monitored in the workplace (European OEL, not country-specific legislation):

Directive (EU) 2000/39, Directive 2004/37/EC,Directive (EU) 2006/15, Directive (EU) 2009/161, Directive (EU) 2017/164, Directive (EU) 2019/1831:

Identification	Occupational exposure limits		
Mica (RCS < 1%) CAS: 12001-26-2 EC: Non-applicable	IOELV (8h)		0,1 mg/m³
	IOELV (STEL)		
Silicon dioxide (RCS < 1%) CAS: 7631-86-9 EC: 231-545-4	IOELV (8h)		0,1 mg/m³
	IOELV (STEL)		
Quartz (RCS < 1 %) CAS: 14808-60-7 EC: 238-878-4	IOELV (8h)		0,1 mg/m³
	IOELV (STEL)		
Ethyl acetate CAS: 141-78-6 EC: 205-500-4	IOELV (8h)	200 ppm	734 mg/m³
	IOELV (STEL)	400 ppm	1468 mg/m³

DNEL (Workers):

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
styrene	Oral	Not relevant	Not relevant	Not relevant	Not relevant
CAS: 100-42-5	Dermal	Not relevant	Not relevant	406 mg/kg	Not relevant
EC: 202-851-5	Inhalation	289 mg/m³	306 mg/m³	85 mg/m³	Not relevant

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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
Aluminium powder (stabilised)	Oral	Not relevant	Not relevant	Not relevant	Not relevant
CAS: 7429-90-5	Dermal	Not relevant	Not relevant	Not relevant	Not relevant
EC: 231-072-3	Inhalation	Not relevant	Not relevant	3,72 mg/m³	3,72 mg/m³
Ethyl acetate	Oral	Not relevant	Not relevant	Not relevant	Not relevant
CAS: 141-78-6	Dermal	Not relevant	Not relevant	63 mg/kg	Not relevant
EC: 205-500-4	Inhalation	1468 mg/m³	1468 mg/m³	734 mg/m³	734 mg/m³

DNEL (General population):

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
styrene	Oral	Not relevant	Not relevant	2,1 mg/kg	Not relevant
CAS: 100-42-5	Dermal	Not relevant	Not relevant	343 mg/kg	Not relevant
EC: 202-851-5	Inhalation	174,25 mg/m³	182,75 mg/m³	10,2 mg/m³	Not relevant
Aluminium powder (stabilised)	Oral	Not relevant	Not relevant	7,9 mg/kg	Not relevant
CAS: 7429-90-5	Dermal	Not relevant	Not relevant	Not relevant	Not relevant
EC: 231-072-3	Inhalation	Not relevant	Not relevant	Not relevant	Not relevant
Ethyl acetate	Oral	Not relevant	Not relevant	4,5 mg/kg	Not relevant
CAS: 141-78-6	Dermal	Not relevant	Not relevant	37 mg/kg	Not relevant
EC: 205-500-4	Inhalation	734 mg/m³	734 mg/m³	367 mg/m³	367 mg/m³

PNEC:

Identification				
styrene	STP	5 mg/L	Fresh water	0,028 mg/L
CAS: 100-42-5	Soil	0,2 mg/kg	Marine water	0,014 mg/L
EC: 202-851-5	Intermittent	0,04 mg/L	Sediment (Fresh water)	0,614 mg/kg
	Oral	Not relevant	Sediment (Marine water)	0,307 mg/kg
Ethyl acetate	STP	650 mg/L	Fresh water	0,24 mg/L
CAS: 141-78-6	Soil	0,148 mg/kg	Marine water	0,024 mg/L
EC: 205-500-4	Intermittent	1,65 mg/L	Sediment (Fresh water)	1,15 mg/kg
	Oral	0,2 g/kg	Sediment (Marine water)	0,115 mg/kg

8.2 Exposure controls:

A.- Individual protection measures, such as personal protective equipment

In accordance with the order of importance to control professional exposure (Directive 98/24/EC) it is recommended to use localized extraction in the work area as a collective protection measure to avoid exceeding the occupational exposure limits. In case of using personal protective equipment it should have CE marking in accordance with Directive 2016/425/EC. For more information on Personal Protective Equipment (storage, use, cleaning, maintenance, class of protection,...) consult the information leaflet provided by the manufacturer. For additional information see subsection 7.1.
All information contained herein is a recommendation which needs some specification from the labour risk prevention services as it is not known whether the company has additional measures at its disposal.

B.- Respiratory protection

Pictogram	PPE	Labelling	CEN Standard	Remarks
 Mandatory respiratory tract protection	Filter mask for gases and vapours	CE CAT III	EN 405:2002+A1:2010	Replace when there is a taste or smell of the contaminant inside the face mask. If the contaminant comes with warnings it is recommended to use isolation equipment.

C.- Specific protection for the hands

Pictogram	PPE	Labelling	CEN Standard	Remarks
 Mandatory hand protection	Chemical protective gloves (Material: Linear low-density polyethylene (LLDPE), Breakthrough time: > 480 min, Thickness: 0.062 mm)	CE CAT III	EN ISO 21420:2020	Replace the gloves at any sign of deterioration.

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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application.

D.- Eye and face protection

Pictogram	PPE	Labelling	CEN Standard	Remarks
 Mandatory face protection	Face shield	CE CAT II	EN 166:2002 EN 167:2002 EN 168:2002 EN ISO 4007:2018	Clean daily and disinfect periodically according to the manufacturer´s instructions. Use if there is a risk of splashing.

E.- Body protection

Pictogram	PPE	Labelling	CEN Standard	Remarks
 Mandatory complete body protection	Disposable clothing for protection against chemical risks, with antistatic and fireproof properties	CE CAT III	EN 1149-1,2,3 EN 13034:2005+A1:2009 EN ISO 13982-1:2004/A1:2010 EN ISO 6529:2013 EN ISO 6530:2005 EN ISO 13688:2013 EN 464:1994	For professional use only. Clean periodically according to the manufacturer´s instructions.
 Mandatory foot protection	Safety footwear for protection against chemical risk, with antistatic and heat resistant properties	CE CAT III	EN ISO 13287:2020 EN ISO 20345:2011 EN 13832-1:2019	Replace boots at any sign of deterioration.

F.- Additional emergency measures

Emergency measure	Standards	Emergency measure	Standards
 Emergency shower	ANSI Z358-1 ISO 3864-1:2011, ISO 3864-4:2011	 Eyewash stations	DIN 12 899 ISO 3864-1:2011, ISO 3864-4:2011

Environmental exposure controls:

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

Volatile organic compounds:

With regard to Directive 2010/75/EU, this product has the following characteristics:

V.O.C. (Supply):	21 % weight
V.O.C. density at 20 ºC:	308,67 kg/m³ (308,67 g/L)
Average carbon number:	7,99
Average molecular weight:	104,17 g/mol

With regard to Directive 2004/42/EC, this product which is ready to use has the following characteristics:

V.O.C. density at 20 ºC:	26 kg/m³ (26 g/L)
EU limit for the product (Cat. B.B):	250 g/L (2010)
Components:	Not relevant

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:

For complete information see the product datasheet.

Appearance:

Physical state at 20 ºC:	Liquid
Appearance:	Paste
Colour:	Grey
Odour:	Characteristic

*Not relevant due to the nature of the product, not providing information property of its hazards.

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SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

Odour threshold:	Not relevant *
Volatility:	
Boiling point at atmospheric pressure:	77 - 2230 ºC
Vapour pressure at 20 ºC:	629 Pa
Vapour pressure at 50 ºC:	3296,76 Pa (3,3 kPa)
Evaporation rate at 20 ºC:	Not relevant *
Product description:	
Density at 20 ºC:	1470 kg/m³
Relative density at 20 ºC:	Not relevant *
Dynamic viscosity at 20 ºC:	8500000 cP
Kinematic viscosity at 20 ºC:	Not relevant *
Kinematic viscosity at 40 ºC:	>20,5 mm²/s
Concentration:	Not relevant *
pH:	Not relevant *
Vapour density at 20 ºC:	Not relevant *
Partition coefficient n-octanol/water 20 ºC:	Not relevant *
Solubility in water at 20 ºC:	Not relevant *
Solubility properties:	Immiscible
Decomposition temperature:	Not relevant *
Melting point/freezing point:	Not relevant *
Flammability:	
Flash Point:	32 ºC
Flammability (solid, gas):	Not relevant *
Autoignition temperature:	229 ºC
Lower flammability limit:	Not available
Upper flammability limit:	Not available
Particle characteristics:	
Median equivalent diameter:	Non-applicable

9.2 Other information:

Information with regard to physical hazard classes:	
Explosive properties:	Not relevant *
Oxidising properties:	Not relevant *
Corrosive to metals:	Not relevant *
Heat of combustion:	Not relevant *
Aerosols-total percentage (by mass) of flammable components:	Not relevant *
Other safety characteristics:	
Surface tension at 20 ºC:	Not relevant *
Refraction index:	Not relevant *

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:

No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7 from Safety Data Sheet.

10.2 Chemical stability:

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SECTION 10: STABILITY AND REACTIVITY (continued)

Chemically stable under the indicated conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:

Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:

Applicable for handling and storage at room temperature:

Shock and friction	Contact with air	Increase in temperature	Sunlight	Humidity
Precaution	Not applicable	Risk of combustion	Avoid direct impact	Not applicable

10.5 Incompatible materials:

Acids	Water	Oxidising materials	Combustible materials	Others
Avoid strong acids	Not applicable	Avoid direct impact	Not applicable	Avoid alkalis or strong bases

10.6 Hazardous decomposition products:

Contains susbstances highly reactive and can auto-polymerize as a result of internal peroxide accumulation. The peroxides formed in these reactions are extremely shock- and heat-sensitive.

SECTION 11: TOXICOLOGICAL INFORMATION **

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

The experimental information related to the toxicological properties of the product itself is not available

Dangerous health implications:

In case of exposure that is repetitive, prolonged or at concentrations higher than the recommended occupational exposure limits, adverse effects on health may result, depending on the means of exposure:

A- Ingestion (acute effect):

- Acute toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for consumption. For more information see section 3
- Corrosivity/Irritability: The consumption of a considerable dose can cause irritation in the throat, abdominal pain, nausea and vomiting.

B- Inhalation (acute effect):

- Acute toxicity : Based on available data, the classification criteria are not met. However, it contains substances classified as hazardous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Causes irritation in respiratory passages, which is normally reversible and limited to the upper respiratory passages.

C- Contact with the skin and the eyes (acute effect):

- Contact with the skin: Produces skin inflammation.
- Contact with the eyes: Produces eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):

- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for the effects mentioned. For more information see section 3.
  IARC: styrene (2A); Talc (3); 1,4-dihydroxybenzene (3); Mica (RCS < 1%) (1)
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.
- Reproductive toxicity: Suspected of damaging the unborn child.

E- Sensitizing effects:

- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous with sensitising effects. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:

Causes irritation in respiratory passages, which is normally reversible and limited to the upper respiratory passages.

G- Specific target organ toxicity (STOT)-repeated exposure:

*** Changes with regards to the previous version*

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SECTION 11: TOXICOLOGICAL INFORMATION ** (continued)

- Specific target organ toxicity (STOT)-repeated exposure: Serious health effects in the case of prolonged inhalation, including death, serious functional disorders or morphological changes of toxicological importance.
- Skin: Based on available data, the classification criteria are not met. However, it does contain substances which are classified as dangerous due to repetitive exposure. For more information see section 3.

H- Aspiration hazard:

Based on available data, the classification criteria are not met. However, it does contain substances classified as hazardous for this effect. For more information see section 3.

Other information:

Not relevant

Specific toxicology information on the substances:

Identification	Acute toxicity		Genus
styrene	LD50 oral	>2000 mg/kg	
CAS: 100-42-5	LD50 dermal	>2000 mg/kg	
EC: 202-851-5	LC50 inhalation	11,8 mg/L (4 h)	Rat
Aluminium powder (stabilised)	LD50 oral	>2000 mg/kg	
CAS: 7429-90-5	LD50 dermal	>2000 mg/kg	
EC: 231-072-3	LC50 inhalation		
Mica (RCS < 1%)	LD50 oral	15000 mg/kg	Rat
CAS: 12001-26-2	LD50 dermal	>5000 mg/kg	
EC: Non-applicable	LC50 inhalation	>5 mg/L	
Silicon dioxide (RCS < 1%)	LD50 oral	>5000 mg/kg	Rat
CAS: 7631-86-9	LD50 dermal	5100 mg/kg	Rabbit
EC: 231-545-4	LC50 inhalation	>5 mg/L	
Quartz (RCS < 1 %)	LD50 oral	>2000 mg/kg	
CAS: 14808-60-7	LD50 dermal	>2000 mg/kg	
EC: 238-878-4	LC50 inhalation	>5 mg/L	
Ethyl acetate	LD50 oral	4100 mg/kg	Rat
CAS: 141-78-6	LD50 dermal	20000 mg/kg	Rabbit
EC: 205-500-4	LC50 inhalation	>20 mg/L	

11.2 Information on other hazards:

Endocrine disrupting properties

Endocrine-disrupting properties: The product does not meet the criteria.

Other information

Not relevant

*** Changes with regards to the previous version*

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

Based on available data, the classification criteria are not met. However, it does contain substances classified as hazardous for this effect. For more information see section 3.

12.1 Toxicity:

Acute toxicity:

Identification	Concentration		Species	Genus
styrene	LC50	64,7 mg/L (96 h)	Carassius auratus	Fish
CAS: 100-42-5	EC50	4,7 mg/L (48 h)	Daphnia magna	Crustacean
EC: 202-851-5	EC50	67 mg/L (192 h)	Microcystis aeruginosa	Algae
Silicon dioxide (RCS < 1%)	LC50	5000 mg/L (96 h)	Brachydanio rerio	Fish
CAS: 7631-86-9	EC50	10000 mg/L (24 h)	Daphnia magna	Crustacean
EC: 231-545-4	EC50	440 mg/L (72 h)	Selenastrum capricornutum	Algae

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SECTION 12: ECOLOGICAL INFORMATION (continued)

Identification	Concentration		Species	Genus
Ethyl acetate	LC50	230 mg/L (96 h)	Pimephales promelas	Fish
CAS: 141-78-6	EC50	717 mg/L (48 h)	Daphnia magna	Crustacean
EC: 205-500-4	EC50	3300 mg/L (48 h)	Scenedesmus subspicatus	Algae

Chronic toxicity:

Identification	Concentration		Species	Genus
styrene	NOEC	Not relevant		
CAS: 100-42-5 EC: 202-851-5	NOEC	1,01 mg/L	Daphnia magna	Crustacean
Ethyl acetate	NOEC	9,65 mg/L	Pimephales promelas	Fish
CAS: 141-78-6 EC: 205-500-4	NOEC	2,4 mg/L	Daphnia magna	Crustacean

12.2 Persistence and degradability:

Substance-specific information:

Identification	Degradability		Biodegradability	
styrene	BOD5	1,96 g O2/g	Concentration	100 mg/L
CAS: 100-42-5	COD	2,8 g O2/g	Period	14 days
EC: 202-851-5	BOD5/COD	0,7	% Biodegradable	100 %
Ethyl acetate	BOD5	1,36 g O2/g	Concentration	100 mg/L
CAS: 141-78-6	COD	1,69 g O2/g	Period	14 days
EC: 205-500-4	BOD5/COD	0,8	% Biodegradable	83 %

12.3 Bioaccumulative potential:

Substance-specific information:

Identification	Bioaccumulation potential	
styrene	BCF	14
CAS: 100-42-5	Pow Log	2.95
EC: 202-851-5	Potential	Low
Ethyl acetate	BCF	30
CAS: 141-78-6	Pow Log	0.73
EC: 205-500-4	Potential	Moderate

12.4 Mobility in soil:

Identification	Absorption/desorption		Volatility	
styrene	Koc	Not relevant	Henry	Not relevant
CAS: 100-42-5	Conclusion	Not relevant	Dry soil	Not relevant
EC: 202-851-5	Surface tension	3,21E-2 N/m (25 ºC)	Moist soil	Not relevant
Ethyl acetate	Koc	59	Henry	13,58 Pa·m³/mol
CAS: 141-78-6	Conclusion	Very High	Dry soil	Yes
EC: 205-500-4	Surface tension	2,324E-2 N/m (25 ºC)	Moist soil	Yes

12.5 Results of PBT and vPvB assessment:

Product does not meet PBT/vPvB criteria

12.6 Endocrine disrupting properties:

Endocrine-disrupting properties: The product does not meet the criteria.

12.7 Other adverse effects:

Not described

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods:

Code	Description	Waste class (Regulation (EU) No 1357/2014)
08 01 11*	waste paint and varnish containing organic solvents or other hazardous substances	Hazardous

Type of waste (Regulation (EU) No 1357/2014):

- CONTINUED ON NEXT PAGE -

SECTION 13: DISPOSAL CONSIDERATIONS (continued)

HP3 Flammable, HP5 Specific Target Organ Toxicity (STOT)/Aspiration Toxicity, HP10 Toxic for reproduction, HP4 Irritant — skin irritation and eye damage

Waste management (disposal and evaluation):

Consult the authorized waste service manager on the assessment and disposal operations in accordance with Annex 1 and Annex 2 (Directive 2008/98/EC). As under 15 01 (2014/955/EC) of the code and in case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-hazardous residue. Waste should not be disposed of to drains. See paragraph 6.2.

Regulations related to waste management:

In accordance with Annex II of Regulation (EC) No 1907/2006 (REACH) the community or state provisions related to waste management are stated

Community legislation: Directive 2008/98/EC, 2014/955/EU, Regulation (EU) No 1357/2014

SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:

With regard to ADR 2023 and RID 2023:

14.1	**UN number or ID number:**	UN3269
14.2	**UN proper shipping name:**	POLYESTER RESIN KIT, liquid base material
14.3	**Transport hazard class(es):**	3
	Labels:	3
14.4	**Packing group:**	III
14.5	**Environmental hazards:**	No
14.6	**Special precautions for user**	
	Special regulations:	236, 340
	Tunnel restriction code:	E
	Physico-Chemical properties:	see section 9
	Limited quantities:	5 L
14.7	**Maritime transport in bulk according to IMO instruments:**	Not relevant

Transport of dangerous goods by sea:

With regard to IMDG 41-22:

14.1	**UN number or ID number:**	UN3269
14.2	**UN proper shipping name:**	POLYESTER RESIN KIT, liquid base material
14.3	**Transport hazard class(es):**	3
	Labels:	3
14.4	**Packing group:**	III
14.5	**Marine pollutant:**	No
14.6	**Special precautions for user**	
	Special regulations:	340, 236
	EmS Codes:	F-E, S-D
	Physico-Chemical properties:	see section 9
	Limited quantities:	5 L
	Segregation group:	Not relevant
14.7	**Maritime transport in bulk according to IMO instruments:**	Not relevant

Transport of dangerous goods by air:

With regard to IATA/ICAO 2024:

- CONTINUED ON NEXT PAGE -

SECTION 14: TRANSPORT INFORMATION (continued)

14.1	**UN number or ID number:**	UN3269
14.2	**UN proper shipping name:**	POLYESTER RESIN KIT, liquid base material
14.3	**Transport hazard class(es):**	3
	Labels:	3
14.4	**Packing group:**	III
14.5	**Environmental hazards:**	No
14.6	**Special precautions for user**	
	Physico-Chemical properties:	see section 9
14.7	**Maritime transport in bulk according to IMO instruments:**	Not relevant

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture:

- Article 95, REGULATION (EU) No 528/2012: *Silicon dioxide (RCS < 1%) (7631-86-9) - PT: (18)*
- Candidate substances for authorisation under the Regulation (EC) No 1907/2006 (REACH): Not relevant
- Regulation (EC) No 1005/2009, about substances that deplete the ozone layer: Not relevant
- REGULATION (EU) No 649/2012, in relation to the import and export of hazardous chemical products: Not relevant
- Substances included in Annex XIV of REACH ("Authorisation List") and sunset date: Not relevant

Seveso III:

Section	Description	Lower-tier requirements	Upper-tier requirements
P5c	FLAMMABLE LIQUIDS	5000	50000

Limitations to commercialisation and the use of certain dangerous substances and mixtures (Annex XVII REACH, etc ....):

Shall not be used in:
—ornamental articles intended to produce light or colour effects by means of different phases, for example in ornamental lamps and ashtrays,
—tricks and jokes,
—games for one or more participants, or any article intended to be used as such, even with ornamental aspects.
Laboral exposure to respirable crystalline silica must be controlled in accordance with Directive (EU) 2022/431, of the European Parliament and of the Council, of March 9, 2022, amending Directive 2004/37/EC, relating to the protection of workers against risks related to exposure to carcinogens or mutagens during work.

Specific provisions in terms of protecting people or the environment:

It is recommended to use the information included in this safety data sheet as a basis for conducting workplace-specific risk assessments in order to establish the necessary risk prevention measures for the handling, use, storage and disposal of this product.

Other legislation:

The product could be affected by sectorial legislation

15.2 Chemical safety assessment:

The supplier has not carried out evaluation of chemical safety.

SECTION 16: OTHER INFORMATION **

Legislation related to safety data sheets:

The SDS shall be supplied in an official language of the country where the product is placed on the market. This safety data sheet has been designed in accordance with ANNEX II-Guide to the compilation of safety data sheets of Regulation (EC) No 1907/2006 (COMMISSION REGULATION (EU) 2020/878).

Modifications related to the previous Safety Data Sheet which concerns the ways of managing risks.:

*** Changes with regards to the previous version*

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SECTION 16: OTHER INFORMATION ** (continued)

COMMISSION REGULATION (EU) 2020/878
COMPOSITION/INFORMATION ON INGREDIENTS (SECTION 3, SECTION 11):
· New declared substances
Aluminium powder (stabilised) (7429-90-5)
CLP Regulation (EC) No 1272/2008 (SECTION 2, SECTION 16):
· Hazard statements
· Precautionary statements

Texts of the legislative phrases mentioned in section 2:

H315: Causes skin irritation.
H335: May cause respiratory irritation.
H361d: Suspected of damaging the unborn child.
H372: Causes damage to organs through prolonged or repeated exposure (Inhalation).
H226: Flammable liquid and vapour.
H319: Causes serious eye irritation.

Texts of the legislative phrases mentioned in section 3:

The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

CLP Regulation (EC) No 1272/2008:

Acute Tox. 4: H332 - Harmful if inhaled.
Aquatic Chronic 3: H412 - Harmful to aquatic life with long lasting effects.
Asp. Tox. 1: H304 - May be fatal if swallowed and enters airways.
Eye Irrit. 2: H319 - Causes serious eye irritation.
Flam. Liq. 2: H225 - Highly flammable liquid and vapour.
Flam. Liq. 3: H226 - Flammable liquid and vapour.
Flam. Sol. 1: H228 - Flammable solid.
Repr. 2: H361d - Suspected of damaging the unborn child.
Skin Irrit. 2: H315 - Causes skin irritation.
STOT RE 1: H372 - Causes damage to organs through prolonged or repeated exposure (Inhalation).
STOT SE 3: H335 - May cause respiratory irritation.
STOT SE 3: H336 - May cause drowsiness or dizziness.

Classification procedure:

Skin Irrit. 2: Calculation method
STOT SE 3: Calculation method
Repr. 2: Calculation method
STOT RE 1: Calculation method
Flam. Liq. 3: Calculation method (2.6.4.3)
Eye Irrit. 2: Calculation method

Advice related to training:

Training is recommended in order to prevent industrial risks for staff using this product and to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:

http://echa.europa.eu
http://eur-lex.europa.eu

Abbreviations and acronyms:

ADR: European agreement concerning the international carriage of dangerous goods by road
IMDG: International maritime dangerous goods code
IATA: International Air Transport Association
ICAO: International Civil Aviation Organisation
COD: Chemical Oxygen Demand
BOD5: 5day biochemical oxygen demand
BCF: Bioconcentration factor
LD50: Lethal Dose 50
LC50: Lethal Concentration 50
EC50: Effective concentration 50
LogPOW: Octanolwater partition coefficient
Koc: Partition coefficient of organic carbon
UFI: unique formula identifier
IARC: International Agency for Research on Cancer

*** Changes with regards to the previous version*

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- END OF SAFETY DATA SHEET -