SAFETY DATA SHEET

Date of issue / Date of revision :7 August 2017 **Version** :12.04

SECTION 1: identification of the substance / mixture and of the company / undertaking

1.1 Product identifier Product

name : MONOLAC LIQUID ZINC

Product code : 00321995

Other means of identification : Unavailable.

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

against Product use : Consumer applications, Professional applications, Used by spraying. Coating.

Use of the substance / mixture :

1.3 Details of the supplier of the safety data sheet

PPG UNIVER Spa
Via Monte Rosa 7
28010 Cavallirio (NO)
Italy
Tel: +39 (0) 163806611
Fax: +39 (0) 163806696

E-mail address of the person responsible for the safety data sheet :univer@ppg.com

1.4 Emergency telephone number

Supplier

Telephone number :

+ 39 (0) 163806663
In case of emergency or intoxication call the POISON CENTER HOSPITAL OF NIGUARDA (MILAN) TEL. +39 (0) 2 66101029

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition: Blend

Classification according to EC Regulation No. 1272/2008 [CLP / GHS]
Flam. Liq. 3, H226 STOT SE 3, H335

Aquatic Acute 1, H400
Aquatic Chronic 1, H410

This product is classified as dangerous according to Regulation (EC) 1272/2008 and subsequent amendments.

See section 16 for the full text of the hazard statements mentioned above. For more detailed information on health effects and symptoms, see Section 11.

2.2 Label elements

SECTION 2: Hazards identification

Hazard pictograms :

Warning : Caution

Hazard statements : Flammable liquid and vapor. It can irritate the respiratory tract.
Very toxic to aquatic life with long lasting effects.

Precautionary advice

General : Keep out of reach of children. If you need to consult a doctor, have the container or the label of the product available.

Prevention : Wear protective gloves. Wear protective clothing. Make use of an eye or face protection device. Keep away from heat sources, hot surfaces, sparks, open flames or other sources of ignition. Not smoking. Avoid breathing vapors.

Reaction : IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. IF ON SKIN (or hair): Take off all contaminated clothing immediately. Rinse the skin.

storage : Store in a well-ventilated place. Keep in a cool place.

Disposal : Dispose of the product and container in accordance with all local, regional, national and international regulations.

P102, P101, P280, P210, P261, P304 + P340, P303 + P361 + P353, P403, P235, P501

Dangerous ingredients : Hydrocarbons, C9, xylene aromaticis

Additional elements of the label : Contains n-butyl acrylate and 2- (3,4-epoxycyclohexyl) ethyltrimethoxysilane. It can cause an allergic reaction.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain substances, preparations and articles dangerous : Not applicable.

Special Packaging Obligations

Containers that must be equipped with a child safety lock : Not applicable.

Tactile warning of danger : Not applicable.

2.3 Other dangers

Other dangers not mentioned in the classification : Prolonged or repeated contact can dehydrate the skin and cause irritation.

SECTION 3: Composition / information on ingredients

3.2 Mixtures :Blend

Product name/ ingredient	Identifiers	% by Weight	Classification Regulation (EC) n. 1272/2008 [CLP]	Guy
zinc powder (stabilized)	CE: 231-175-3 CAS number: 7440-66-6 Index: 030-001-01-9	≥25 - ≤50	Aquatic Acute 1, H400 (M = 1) Aquatic Chronic 1, H410 (M = 1)	[1]
Hydrocarbons, C9, aromaticis	REACH #: 01-2119455851-35 EC: 918-668-5 CAS number: 64742-95-6	≥10 - <20	Flam. Liq. 3, H226 STOT SE 3, H335 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Chronic 2, H411 EUH066	[1]
aluminum powder (stabilized)	CE: 231-072-3 CAS number: 7429-90-5 Index: 013-002-00-1	≥5.0 - ≤10	Flam. Sol. 1, H228 Water-react. 2, H261	[2]
xylene	REACH #: 01-2119488216-32 EC: 215-535-7 CAS number: 1330-20-7 Index: 601-022-00-9	≥5.0 - <10	Flam. Liq. 3, H226 Acute Tox. 4, H312 Acute Tox. 4, H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335 STOT RE 2, H373 (nervous system central (CNS), kidneys, liver) Asp. Tox. 1, H304	[1] [2]
Naphtha (petroleum), hydrotreated heavy	CE: 265-150-3 CAS number: 64742-48-9 Index: 649-327-00-6	≥1.0 - ≤5.0	Flam. Liq. 3, H226 Asp. Tox. 1, H304 EUH066	[1]
zinc oxide	REACH #: 01-2119463881-32 EC: 215-222-5 CAS number: 1314-13-2 Index: 030-013-00-7	≥1.0 - ≤5.0	Aquatic Acute 1, H400 (M = 1) Aquatic Chronic 1, H410 (M = 1)	[1] [2]
talc (Mg3H2 (SiO3) 4)	CE: 238-877-9 CAS number: 14807-96-6	≥1.0 - ≤5.0	Not classified.	[2]
ethylbenzene	REACH #: 01-2119489370-35 EC: 202-849-4 CAS number: 100-41-4 Index: 601-023-00-4	≥1.0 - ≤5.0	Flam. Liq. 2, H225 Acute Tox. 4, H332 STOT RE 2, H373 (hearing organs) Asp. Tox. 1, H304	[1] [2]
n-butyl acrylate	REACH #: 01-2119453155-43 CE: 205-480-7 CAS number: 141-32-2 Index: 607-062-00-3	≤0.30	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 STOT SE 3, H335	[1] [2]
2- (3,4-epoxycyclohexyl) ethyltrimethoxysilane	CE: 222-217-1 CAS number: 3388-04-3	≤0.30	Skin Sens. 1B, H317 Carc. 2, H351 Aquatic Chronic 3, H412 **See section 16 for the full text of the danger mentioned above.**	[1]

SECTION 3: Composition / information on ingredients

There are no additional ingredients which, in the current knowledge of the supplier and in the applicable concentrations, are classified as harmful to health or the environment, meet the PBT or vPvB criteria, or which have been assigned an occupational exposure limit and which must therefore be reported in this section.

Guy

[1] Substance presenting a health or environmental hazard
[2] Substance for which there are workplace exposure limits
[3] Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII
[4] Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII
[5] Substance of equivalent concern
[6] Additional information related to company policy

Occupational exposure limits, if known, are listed in section 8. **SUB codes**

represent substances that have no registered CAS number.

SECTION 4: first aid measures

4.1 Description of first aid measures Contact

with eyes : Remove contact lenses, rinse thoroughly with clean, fresh water, holding the eyelids open for at least 10 minutes and seek immediate medical attention.

Inhalation : Bring to fresh air. Keep the person warm and at rest. In case of lack of breathing, irregular breathing or respiratory arrest, give artificial respiration or have oxygen administered by trained personnel.

Skin contact : Remove contaminated clothing and shoes. Wash thoroughly with soap and water or use an effective skin cleanser. DO NOT use solvents or thinners.

Ingestion : If swallowed, seek medical advice immediately and show the container or label. Keep the person warm and at rest. DO NOT induce vomiting.

Protection of rescuers : No action shall be taken involving any personal risk or without suitable training. If fumes are still suspected, wear a mask or respirator. Performing mouth-to-mouth resuscitation can be dangerous for the person helping.

4.2 Most important symptoms and effects, both acute and delayed Potential acute health effects

Eye contact : No known significant effects or critical hazards. It can

Inhalation : irritate the respiratory tract.

Skin contact : Skin degreaser. It can cause dryness and irritation of the skin. No

Ingestion : known significant effects or critical hazards.

Signs / Symptoms of overexposure

Eye contact : No specific data.

Inhalation : Adverse symptoms may include the following:
Respiratory tract irritation
cough

Skin contact : Adverse symptoms may include the following:
irritation
dryness
cracks

Ingestion : No specific data.

4.3 Indication of any immediate medical attention and special treatment needed

SECTION 4: first aid measures

Notes to the physician : Treat symptomatically. If large quantities are ingested or inhaled, contact a poison control center immediately.

Specific treatments : No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media :Using dry chemicals,CO_2,water spray or foam.

Unsuitable extinguishing media :Do not use full jet water.

5.2 Special hazards arising from the substance or mixture

Hazards arising from the substance or mixture : Flammable liquid and vapor. Spillage into sewers can create a fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst and risk of a subsequent explosion. This material is highly toxic to aquatic life with long lasting effects. Fire extinguishing water contaminated with this material must be contained and prevented from accessing any waterway, sewer or drain.

Hazardous Combustion Products : Decomposition products may include the following materials: carbon oxides
metal oxide / oxides

5.3 Recommendations for firefighters

Special precautions for firefighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers away from fire area if there is no risk. Use water spray to cool fire-exposed containers.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire fighters (including helmets, protective boots and gloves) complying with the European standard EN 469 will provide basic level protection for chemical accidents.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For those who do not intervene directly : No action shall be taken involving any personal risk or without suitable training. Evacuate the surrounding areas. Prevent the entry of foreign and unprotected personnel. Do not touch or walk on the spilled material. Block all sources of ignition. Avoid cigarettes, open flames and all sources of ignition in the hazardous area. Avoid breathing vapors or mists. Provide adequate ventilation. Wear an appropriate respirator in case of inadequate ventilation. Wear suitable personal protective equipment.

For those who intervene directly : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency service operators".

SECTION 6: Accidental release measures

6.2 Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, earth or air). Water polluting material. It can be harmful to the environment if released in large quantities. Collect spilled material.

6.3 Methods and materials for containment and cleaning

up Small spill : Stop the escape if there is no risk. Move containers from spill area. Use non-sparking tools and explosion-proof equipment. Dilute with water and absorb if water-soluble. Alternatively, or if insoluble in water, absorb with dry inert material and dispose of in appropriate waste container. Dispose of via an authorized waste disposal company.

Large payout : Stop the escape if there is no risk. Move containers from spill area. Use non-sparking tools and explosion-proof equipment. Approach the upwind emission source. Prevent leakage into sewer systems, waterways, basements or confined areas. Wash and convey the spilled quantities to a sewage treatment plant or proceed as follows. Conclude and collect any spills with non-combustible absorbent material, such as sand, earth, vermiculite, diatomite and dispose of the product in a container in compliance with current legislation. Dispose of via an authorized waste disposal company. A contaminated absorbent material can cause the same hazard as the spilled product.

6.4 Reference to other sections : For emergency telephone numbers, see Section 1.
See Section 8 for information on appropriate personal protective equipment.
For more information on waste treatment, refer to Section 13.

SECTION 7: handling and storage

The information contained in this section contains general information and warnings. Refer to the list of Identified Uses in Section 1 for specific information available provided in the exposure scenario (s).

7.1 Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8). It is forbidden to eat, drink and smoke in areas where the material is handled, stored or treated. People using the product should wash their hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering the refectory areas. Do not swallow. Avoid contact with eyes, skin and clothing. Avoid breathing vapors or mists. Do not disperse in the environment. Refer to special instructions / safety data sheets. Use only with adequate ventilation. Wear an appropriate respirator in case of inadequate ventilation. Do not enter storage areas and closed spaces if not adequately ventilated. Store in the original container or an approved alternative container made of a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flames or other sources of ignition. Use explosion-proof electrical equipment (ventilation, lighting and material handling). Use non-sparking tools. Avoid the accumulation of electrostatic charges. To avoid fire and explosion, dissipate static electricity during transfer by grounding and grounding containers and equipment before transferring material. Empty containers retain product residues and can be dangerous. Do not reuse the container. kept tightly closed when not in use. Store and use away from heat, sparks, open flames or other sources of ignition. Use explosion-proof electrical equipment (ventilation, lighting and material handling). Use non-sparking tools. Avoid the accumulation of electrostatic charges. To avoid fire and explosion, dissipate static electricity during transfer by grounding and grounding containers and equipment before transferring material. Empty containers retain product residues and can be dangerous. Do not reuse the container. kept tightly closed when not in use. Store and use away from heat, sparks, open flames or other sources of ignition. Use explosion-proof electrical equipment (ventilation, lighting and material handling). Use non-sparking tools. Avoid the accumulation of electrostatic charges. To avoid fire and explosion, dissipate static electricity during transfer by grounding and grounding containers and equipment before transferring material. Empty containers retain product residues and can be dangerous. Do not reuse the container. lighting and material handling). Use non-sparking tools. Avoid the accumulation of electrostatic charges. To avoid fire and explosion, dissipate static electricity during transfer by grounding and grounding containers and equipment before transferring material. Empty containers retain product residues and can be dangerous. Do not reuse the container. lighting and material handling). Use non-sparking tools. Avoid the accumulation of electrostatic charges. To avoid fire and explosion, dissipate static electricity during transfer by grounding and grounding containers and equipment before transferring material. Empty containers retain product residues and can be dangerous. Do not reuse the container.

SECTION 7: handling and storage

Warnings on general occupational hygiene practices : It is forbidden to eat, drink and smoke in areas where the material is handled, stored or treated. People using the product should wash their hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering the refectory areas. See also Section 8 for more information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibility : Storage temperature: 0 to 35 ° C (32 to 95 ° F). Store according to local regulations. Store in separate, approved area. Store in the original container protected from direct sunlight in a dry, cool and well-ventilated area, away from other incompatible materials (see Section 10) and from food and drink. Keep locked up. Eliminate all sources of ignition. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Open containers must be carefully resealed and kept straight to prevent accidental product spillage. Do not store in unlabeled containers. Provide adequate containment systems to avoid environmental pollution. Before handling or use,

7.3 Specific end uses

Warnings : Unavailable.

Specific guidelines for the industrial sector : Unavailable.

SECTION 8: Exposure controls / personal protection

The information contained in this section contains general information and warnings. Refer to the list of Identified Uses in Section 1 for specific information available provided in the exposure scenario (s).

8.1 Control parameters

Occupational exposure limits

Name of the product / ingredient	Exposure limit values
aluminum powder (stabilized)	**ACGIH TLV (United States, 3/2016).** TWA: 1 mg / m³ 8 hours. Form: Respirable fraction **Ministry of Labor and Social Policies (Italy, 10/2013). Absorbed through the skin.** Short Term: 442 mg / m³ 15 minutes. Short Term: 100ppm 15 minutes. 8 hours: 221 mg / m³ 8 hours. 8 hours: 50 ppm 8 hours. **ACGIH TLV (United States, 3/2016).** STEL: 10 mg / m³ 15 minutes. Form: TWA respirable fraction: 2 mg / m³ 8 hours. Form: Respirable fraction **ACGIH TLV (United States, 3/2016).** TWA: 2 mg / m³ 8 hours. Shape: Breathable **Ministry of Labor and Social Policies (Italy, 10/2013). Absorbed through the skin.** Short Term: 884 mg / m³ 15 minutes. Short Term: 200ppm 15 minutes. 8 hours: 442 mg / m³ 8 hours. 8 hours: 100 ppm 8 hours. **Ministry of Labor and Social Policies (Italy, 10/2013).** Short Term: 53 mg / m³ 15 minutes. Short Term: 10 ppm 15 minutes.
xylene	
zinc oxide	
talc (Mg3H2 (SiO3) 4)	
ethylbenzene	
n-butyl acrylate	

SECTION 8: Exposure controls / personal protection

	8 hours: 11 mg / m³ 8 hours. 8 hours: 2 ppm 8 hours.

Monitoring Procedures: Recommended

If this product contains ingredients with exposure limits, personal, workplace atmosphere and biological monitoring may be required to determine the effectiveness of ventilation or other control measures and / or the need to use protective equipment respiratory. Refer to the monitoring standards, such as the following: European standard EN 689 (Atmosphere in the workplace - Guidance on the assessment of exposure by inhalation to chemical compounds for the purpose of comparison with limit values and measurement strategy) Standard European EN 14042 (Atmospheres in the workplace - Guide to the application and use of procedures for assessing exposure to chemical and biological agents) European standard EN 482 (Atmospheres in

- General requirements for the performance of procedures for the measurement of chemical agents) Reference should also be made to national guidance documents on methods for the determination of hazardous substances.

DNEL

Name of the product / ingredient	Guy	Exposure	Value	Population	Effects
xylene	DNEL	Short term By inhalation	289 mg / m³	Workers	Systemic
	DNEL	Short term By inhalation	289 mg / m³	Workers	Local
	DNEL	Long-term By the cutaneous route	180 mg / kg bw / day	Workers	Systemic
	DNEL	Long-term By inhalation	77 mg / m³	Workers	Systemic
	DNEL	Short term By inhalation	174 mg / m³	Consumers	Systemic
	DNEL	Short term By inhalation	174 mg / m³	Consumers	Local
	DNEL	Long-term By the cutaneous route	108 mg / kg bw / day	Consumers	Systemic
	DNEL	Long-term By inhalation	14.8 mg / m³	Consumers	Systemic
	DNEL	Long-term Orally	1.6 mg / kg bw / day	Consumers	Systemic
zinc oxide	DNEL	Long-term By inhalation	5 mg / m³	Workers	Systemic
	DNEL	Long-term By inhalation	2.5 mg / m³	Consumers	Systemic
	DNEL	Long-term Orally	0.83 mg / kg bw / day	Consumers	Systemic
	DNEL	Long-term By the cutaneous route	87 mg / kg bw / day	Consumers	Systemic
	DNEL	Long-term By the cutaneous route	87 mg / kg bw / day	Workers	Systemic
ethylbenzene	DNEL	Long-term By inhalation	77 mg / m³	Workers	Systemic
	DNEL	Short term By inhalation	293 mg / m³	Workers	Local
	DNEL	Long-term By the cutaneous route	180 mg / kg bw / day	Workers	Systemic
	DNEL	Long-term By inhalation	15 mg / m³	Consumers	Systemic
	DNEL	Long-term	1.6 mg / kg	Consumers	Systemic

SECTION 8: Exposure controls / personal protection

		Orally	bw / day		

PNEC

Name of the product / ingredient	Guy	Environment detail	Value	Method detail
xylene	-	Fresh water	0.327 mg / l	-
	-	Sea water	0.327 mg / l	-
	-	Treatment plant waste water	6.58 mg / l	-
	-	Water sediment current	12.46 mg / kg dwt	-
	-	Water sediment marina	12.46 mg / kg dwt	-
	-	Soil	2.31 mg / kg	-
zinc oxide	-	Fresh water	20.6 µg / l	Distribution of the sensitivity
	-	Sea water	6.1 µg / l	Distribution of the sensitivity
	-	Water sediment current	117 mg / kg dwt	Distribution of the sensitivity
	-	Treatment plant waste water	52 µg / l	Evaluation factors
	-	Water sediment marina	56.5 mg / kg dwt	Evaluation factors
	-	Soil	35.6 mg / kg dwt	Distribution of the sensitivity
ethylbenzene	-	Fresh water	0.1 mg / l	Evaluation factors
	-	Sea water	0.01 mg / l	Evaluation factors
	-	Treatment plant waste water	9.6 mg / l	Evaluation factors
	-	Water sediment current	13.7 mg / kg dwt	Breakdown at equilibrium
	-	Water sediment marina	1.37 mg / kg dwt	Breakdown at equilibrium
	-	Soil	2.68 mg / kg dwt	Breakdown at equilibrium
	-	Poisoning secondary	20 mg / kg	-

8.2 Exposure controls Appropriate engineering controls : Use only with adequate ventilation. Run the process in containment conditions, use local exhaust systems or other control devices to keep operators' exposure to airborne pollutants below any limit recommended or prescribed by law. Control devices must also keep gas, vapor or dust concentrations below any lower explosive limit. If the equipment in use is not such as to reduce the risk of explosion below the legal limits, use the tools provided for in this regard by the ATEX standard.

Individual protection measures

Hygiene measures : Before eating, smoking and using the lavatory and at the end of the working period, wash your hands, arms and face thoroughly after handling chemicals. Appropriate techniques should be used to remove potentially contaminated clothing. Wash the contaminated garments before reusing them. Make sure that the eyewash stations and emergency showers are close to the place of use.

Eye / face protection : Protective glasses with side shields.

SECTION 8: Exposure controls / personal protection

Skin protection

Hand protection : Chemical resistant and impermeable gloves conforming to approved standards should always be used when handling chemicals if the risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves still maintain their protective properties unaltered. Note that the breakthrough time for any glove constituent material may vary depending on the glove manufacturer. In the case of mixtures composed of several substances, it is not possible to accurately estimate the protection time of the gloves. Recommended gloves are product containing common solvents. When frequent or prolonged contact is expected, it is recommended to

Gloves : For prolonged or repeated handling, use the following types of gloves:

Not recommended: nitrile rubber Recommended: polyvinyl alcohol (PVA), Viton®

Body protection device : Personal protective equipment for the body must be chosen according to the risks foreseen for the job performed and approved by qualified personnel before using them for handling this product. When there is a risk of fire from static electricity, wear anti-static protective clothing. For maximum protection from electrostatic discharge, use antistatic overalls, boots and gloves. Refer to European standard EN 1149 for further information on material and design requirements and test methods.

Other devices of skin protection Choose appropriate footwear and any additional skin protection measures based on the activity being carried out and the inherent risks. Such choices must be approved by a specialist before handling this product.

Respiratory protection : Respirator selection should be based on known or anticipated exposure levels, the hazards of the product and the safe operating limits of the selected respirator. If workers are exposed to concentrations above the exposure limit, use appropriate, certified respirators. Use a custom-made air-purified or fresh-air respirator that meets approved standards if the risk assessment indicates this is necessary. Filter type: Organic vapor (Type A) and P3 particle filter

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, it will be necessary to perform fume scrubbing, add filters, or make technical changes to process equipment to reduce emissions to acceptable levels.

SECTION 9: physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state : Liquid.

Color : Varied

Odor : Characteristic.

Odor threshold : Unavailable.

pH : insoluble in water.

Melting point / freezing point : May begin to solidify at the following temperature: <-60 ° C (<-76 ° F) Based on data for the following ingredient: naphtha (petroleum), hydrotreated heavy. Average weighted value: -100.43 ° C (-148.8 ° F)

SECTION 9: physical and chemical properties

Initial boiling point and boiling range	:	> 37.78 ° C
Flash point	:	Closed cup: 42 ° C
Evaporation rate	:	Highest known value: 0.84 (ethylbenzene) Weighted average value: 0.34 compared to butyl acetate
The material supports combustion.	:	Yup.
Flammability (solid, gas)	:	liquid
Upper / lower flammability or explosive limits	:	Highest known range: Lower: 0.7% Upper: 7% (Hydrocarbons, C9, aromaticis)
Vapor pressure	:	Highest known value: 1.2 kPa (9.3 mm Hg) (at 20 ° C) (ethylbenzene). Average weighted value: 0.39 kPa (2.93 mm Hg) (at 20 ° C)
Vapor density	:	Highest known value: 3.7 (Air = 1) (xylene). Weighted average value: 3.7 (Air = 1)
Relative density	:	1.77
Solubility (the solubilities)	:	Insoluble in the following materials: cold water.
Partition coefficient: noctanol / water	:	Not applicable.
Temperature of self-ignition	:	Lowest known value: 280 to 470 ° C (536 to 878 ° F) (naphtha (petroleum), hydrotreated heavy).
Temperature of decomposition	:	The product is stable under the recommended handling and storage conditions (see section 7).
Viscosity	:	Kinematic (40 ° C):> 0.21 cm_2/ s
Viscosity	:	40 - <60 s (ISO 6mm)
Explosive properties	:	The product does not present a risk of explosion.
Oxidizing properties	:	The product is not reactive (non oxidizing).

9.2 Other information

No additional information.

SECTION 10: stability and reactivity

10.1 Reactivity : No specific test data related to reactivity available for this product or its ingredients.

10.2 Chemical stability :The product is stable.

10.3 Possibility of hazardous reactions :Under normal conditions of storage and use, hazardous reactions will not occur.

10.4 Conditions to avoid : If exposed to high temperatures it can produce dangerous decomposition products.

Consult the protective measures listed in sections 7 and 8.

10.5 Incompatible materials: To avoid strong exothermic reactions, keep away from the following materials: oxidizing agents, strong alkalis, strong acids.

SECTION 10: stability and reactivity

10.6 Products of dangerous decomposition : Depending on the conditions, decomposition products may include the following materials: carbon oxides metal oxide / oxides

SECTION 11: toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product name/ ingredient	Result	Species	Dose	Exposure
Hydrocarbons, C9, aromaticis	LD50 Dermal LD50 Oral	Rabbit	3.48 g / kg	-
	LD50 Dermal LD50 Oral	Rat	8400 mg / kg	-
xylene	LC50 Inhalation Vapors	Rabbit	> 1.7 g / kg	-
		Rat	4.3 g / kg	-
Naphtha (petroleum), hydrotreated heavy		Rat	8500 mg / m^3	4 hours
	LD50 Oral LC50 For	Rat	> 6 g / kg	-
ethylbenzene	inhalation Vapors LD50	Rat	17.8 mg / l	4 hours
	Dermal	Rabbit	17.8 g / kg	-
	LD50 Oral LC50 For	Rat	3.5 g / kg	-
n-butyl acrylate	inhalation Gas. LC50 By	Rat	2730 ppm	4 hours
	inhalation Vapors LD50 By	Rat	1970 ppm	4 hours
	the cutaneous route	Rabbit	2 g / kg	-
	LD50 Oral LD50	Rat	900 mg / kg	-
2- (3,4-epoxycyclohexyl) ethyltrimethoxysilane	Cutaneous	Rabbit	6.7 g / kg	-
	LD50 Oral	Rat	13 g / kg	-

Conclusion / Summary :Unavailable.

Acute toxicity estimates

Street	Acute Toxicity Assessment
By the cutaneous route	19472.8 mg / kg
Inhalation (vapors)	174.4 mg / l

Irritation / Corrosion

Product name/ ingredient	Result	Species	Score	Exposure	Observation
xylene	Skin - Moderately irritating	Rabbit	-	24 hours 500 mg	-

Conclusion / Summary : Unavailable.

Awareness raising

Conclusion / Summary : Unavailable.

Mutagenicity

Conclusion / Summary : Unavailable.

Carcinogenicity

Conclusion / Summary : Unavailable.

Reproductive toxicity

Conclusion / Summary : Unavailable.

Teratogenicity

Conclusion / Summary : Unavailable.

Specific target organ toxicity (STOT) - single exposure

SECTION 11: toxicological information

Name of the product / ingredient	Category	Via of exposure	Target organs
Hydrocarbons, C9, aromaticis	Category 3	Not applicable.	Irritation of the pathways respiratory and Narcosis
xylene	Category 3	Not applicable.	Irritation of the pathways respiratory
n-butyl acrylate	Category 3	Not applicable.	Irritation of the pathways respiratory

Specific target organ toxicity (STOT) - repeated exposure

Name of the product / ingredient	Category	Via of exposure	Target organs
xylene	Category 2	Not determined	nervous system central (SNC), kidneys and liver
ethylbenzene	Category 2	Not determined	organs of hearing

Aspiration hazard

Name of the product / ingredient	Result
Hydrocarbons, C9, aromaticis	DANGER IN CASE OF ASPIRATION - Category 1
xylene	DANGER IN CASE OF ASPIRATION - Category 1
Naphtha (petroleum), hydrotreated heavy	DANGER IN CASE OF ASPIRATION - Category 1
ethylbenzene	DANGER IN CASE OF ASPIRATION - Category 1

Route information likely to be exposed :Unavailable.

Potential acute health effects

Inhalation : It can irritate the respiratory tract.

Ingestion : No known significant effects or critical hazards.

Skin contact Eye contact : Skin degreaser. It can cause dryness and irritation of the skin. No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Inhalation : Adverse symptoms may include the following:
Respiratory tract irritation
cough

Ingestion : No specific data.

Skin contact : Adverse symptoms may include the following:
irritation
dryness
cracks

Eye contact : No specific data.

Delayed and immediate effects and chronic effects from short and long term exposure

Short-term exposure

Potential effects immediate : Unavailable.

Potential delayed effects : Unavailable.

Long-term exposure

SECTION 11: toxicological information

Potential effects immediate : Unavailable.

Potential delayed effects : Unavailable.

Potential Chronic Health Effects

Unavailable.

Conclusion / Summary : Unavailable.

General : Prolonged or repeated contact can damage the skin and lead to irritation, cracking and / or dermatitis.

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : No known significant effects or critical hazards.

Effects on development : No known significant effects or critical hazards.

Effects on fertility : No known significant effects or critical hazards.

Other information : Unavailable.

There are no data available on the mixture itself. The mixture was evaluated following the conventional method of the CLP regulation (EC) No. 1272/2008 and is consequently classified according to its toxicological properties. For more details, see Sections 2 and 3.

Exposure to solvent vapor concentrations above the pre-established occupational limit can be harmful to health, causing irritation of the mucous membranes and respiratory tract with adverse effects on the kidneys, liver and central nervous system. Symptoms include headaches, dizziness and dizziness, fatigue, muscle weakness, drowsiness, and in extreme cases, loss of consciousness.
Solvents may cause some of the aforementioned effects via skin absorption. Repeated or prolonged contact with the mixture can result in the removal of natural skin fat, resulting in non-allergic contact dermatitis and absorption through the skin.
Contact of the liquid with the eyes can cause irritation and reversible damage.
Ingestion can cause nausea, diarrhea and vomiting.
If known, the delayed and immediate effects, as well as the chronic effects of the components deriving from short and long-term exposure, by the oral and dermal route, by inhalation and by contact with the eyes, are taken into account.

Contains n-butyl acrylate, 2- (3,4-epoxycyclohexyl) ethyltrimethoxysilane. It can cause an allergic reaction.

SECTION 12: ecological information

12.1 Toxicity

Product name/ ingredient	Result	Species	Exposure
zinc oxide	Acute EC50 0.17 mg / l	Algae	72 hours
	Acute EC50 0.481 mg / l Fresh water	Daphnia - Daphnia magna - Newborn	48 hours
	Chronic NOEC 0.017 mg / l Fresh water	Algae	72 hours
ethylbenzene	Acute LC50 150 to 200 mg / l Fresh water	Fish - Lepomis macrochirus - Young of the year	96 hours

Conclusion / Summary :Unavailable.

12.2 Persistence and degradability

Conclusion / Summary :Unavailable.

SECTION 12: ecological information

Product name/ ingredient	Half-life in water	Photolysis	Biodegradability
xylene	-	-	Easily
ethylbenzene	-	-	Easily

12.3 Bioaccumulative potential

Product name/ ingredient	$LogP_{ow}$	BCF	Potential
xylene	3.16	7.4 to 18.5	low
ethylbenzene	3.15	79.43	low
n-butyl acrylate	2.36	-	low

12.4 Mobility in soil

Soil / water partition coefficient (K_{OC}) : Unavailable.

Mobility : Unavailable.

12.5 Results of PBT and vPvB PBT

assessment : Not applicable.

vPvB : Not applicable.

12.6 Other adverse effects :No known significant effects or critical hazards.

SECTION 13: Disposal considerations

The information contained in this section contains general information and warnings. Refer to the list of Identified Uses in Section 1 for specific information available provided in the exposure scenario (s).

13.1 Waste treatment methods

Product

Methods of disposal : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products must always be carried out in accordance with the legal indications on environmental protection and waste disposal and the requirements of each relevant local authority. Dispose of surplus and non-recyclable products through an authorized waste disposal company. Untreated waste should not be disposed of in the sewer system unless it fully complies with the requirements of each entity and legislation.

Hazardous waste : Yup.

European Waste Catalog

Rejection code	Waste designation
08 01 11 *	waste paints and varnishes containing organic solvents or other dangerous substances

Packing

Methods of disposal :The generation of waste should be avoided or minimized wherever possible. The waste packaging must be recycled. Incineration or landfilling should only be considered when recycling is not practicable.

Type of packaging	European Waste Catalog	
Container	15 01 06	mixed material packaging

SECTION 13: Disposal considerations

Special precautions : Do not dispose of the product and the container except with due precautions. Care should be taken when handling emptied containers that have not been cleaned or rinsed. Empty containers or liners can retain product residues. The vapors emitted by product residues can develop an easily flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been thoroughly cleaned inside. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

14. Transport information

	ADR / RID	ADN	IMDG	IATA
14.1 UN number	A1263	A1263	A1263	A1263
14.2 Name of shipment of the UN	PAINTS	PAINTS	PAINT	PAINT
14.3 Classes of connected danger to transport	3	3	3	3
14.4 Group of packaging	III	III	III	III
14.5 Dangers for the environment	Yup.	Yup.	Yes.	Yes. The environmentally hazardous substance mark is not required.
Substances marine pollutants	Not applicable.	Not applicable.	(Zinc powder - zinc dust (stabilized), Hydrocarbons, C9, aromatics)	Not applicable.

Additional information

ADR / RID : The marking of dangerous substance for the environment is not required if the transport takes place in dimensions ≤5 l or ≤5 kg.

Code **restrictions on transport in tunnel** : (D / E)

ADN : The marking of dangerous substance for the environment is not required if the transport takes place in dimensions ≤5 l or ≤5 kg.

IMDG : The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg.

IATA : The environmentally hazardous substance marking may appear if required by other transport regulations.

14.6 Special precautions for users : **Transport within the user's property:** always carry out transport with closed containers, stored vertically and secured to the means of transport. Verify the suitability of the persons carrying out the transport to intervene effectively in the event of an accident and / or spill.

14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code :Not applicable.

SECTION 15: Regulatory information

15.1 Health, safety and environmental legislation and regulations specific to the substance or mixture

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorization

Annex XIV

None of the components are listed.

Substances of Extremely Concern

None of the components are listed.

Annex XVII - Restrictions to the manufacturing, placing on the market and use of certain substances, preparations and articles dangerous: Not applicable.

Other EU regulations

Substances harmful to the ozone layer (1005/2009 / EU)

Not in the list.

VOC for ready-to-use mixtures :IIA / I. High performance one-component paints. Limit values in the EU: 500g / l (2010.)
This product contains a maximum VOC of 495 g / l.

Seveso Directive

This product is controlled under the Seveso directive.

Criteria of danger

Category
P5c: Flammable liquids of category 2 and 3 not falling under P5A or P5B E1: Hazardous to the aquatic environment - Acute 1 or Chronic 1 6: Flammable (R10) 9i: Very toxic to the environment

National standards

References :;Rules on classification and labeling of substances and mixtures.
Regulation (EC) n. 1272/2008 of the European Parliament and of the Council, of 16 December 2008, relating to the classification, labeling and packaging of substances and mixtures (CLP) and subsequent amendments and additions. ;
Table of harmonized classifications and labeling - Annex VI, Part 3 of Regulation (EC) no. 1272/2008 (CLP) and subsequent amendments and additions. ; The following substances may be present in the formulations of PPG products: (to verify the actual presence, see Section 3)
- Solvent Naphtha CAS No. 64742-95-6
- Solvent Naphtha CAS No. 64742-82-1
- Solvent Naphtha CAS No. 64742-48-9
- Solvent Naphtha CAS No. 64742-49-0

These substances can be classified as carcinogenic or mutagenic if certain impurities contained are equal to or greater than 0.1%, as per Note P of the regulation itself. PPG has verified this possibility with the suppliers who have sent safety data sheets and written declarations, which certify that the aforementioned substances are not classifiable as carcinogenic or mutagenic as any impurities present have a concentration much lower than the classification limits.

; Seveso regulation
Legislative Decree No. 105 of 26 June 2015 - Implementation of Directive 2012/18 / EU

SECTION 15: Regulatory information

relating to the control of the danger of major accidents associated with dangerous substances (Seveso III).
For application, refer to the product labeling classification reported in this sheet.
; Water Regulations
Refer to Legislative Decree 152/2006 Part Three and subsequent amendments and additions.
; Waste legislation
Follow the provisions of Legislative Decree 152/2006 Part Four and subsequent amendments and additions, referring to the European Waste Catalog (CER) for classification.
; Air Regulations
Refer to Legislative Decree 152/2006 Part Five and subsequent amendments and additions.
; Other regulations
Other rules governing safety and environmental protection are, when applicable, the following:
- Legislative Decree No. 81 of 09/04/2008 - Regulations on the protection of health and safety in the workplace.
- Legislative Decree No. 152 of 03/04/2006 - Environmental regulations. ; Please also refer to any other applicable provision.

15.2 Evaluation of chemical safety :No chemical safety assessment has been carried out.

SECTION 16: other information

Indicates information that has changed from previously issued.

Abbreviations and acronyms

ATE = Estimation of Acute Toxicity
CLP = Classification, Labeling and Packaging [Regulation (EC) No. 1272/2008] DNEL = Derived No Effect Level
EUH statement = CLP specific risk provisions PNEC = Predicted No Effect Concentration
RRN = REACH Registration Number PBT = Persistent, Bioaccumulative, Toxic vPvB = Very Persistent and Very Bioaccumulative
ADR = European Agreement concerning the International Carriage of Dangerous Goods by Road
ADN = European Standards relating to the International Transport of Dangerous Goods by Inland Waterways
IMDG = International Maritime Transport of Dangerous Goods
IATA = International Air Transport Association

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP / GHS)]

Classification	Justification
Flam. Liq. 3, H226	Based on the experimental data of the tests
STOT SE 3, H335	Calculation method
Aquatic Acute 1, H400	Calculation method
Aquatic Chronic 1, H410	Calculation method

Full text of abbreviated hazard statements

SECTION 16: other information

H225	Highly flammable liquid and vapor.
H226	Flammable liquid and vapor.
H228	Flammable solid.
H261	Contact with water releases flammable gases.
H304	It can be fatal if swallowed and if it enters the respiratory tract.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction. Causes
H319	serious eye irritation.
H332	Harmful if inhaled.
H335	It can irritate the respiratory tract. It
H336	can cause drowsiness or dizziness.
H351	Suspected of causing cancer.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic organisms.
H410	Very toxic to aquatic life with long lasting effects. Toxic to aquatic
H411	life with long lasting effects. Harmful to aquatic life with long
H412	lasting effects.

Full text of classifications [CLP / GHS]

Acute Tox. 4, H312	ACUTE TOXICITY (skin) - Category 4 ACUTE TOXICITY
Acute Tox. 4, H332	(inhalation) - Category 4 SHORT-TERM (ACUTE) HAZARD TO
Aquatic Acute 1, H400	THE AQUATIC ENVIRONMENT - Category 1
Aquatic Chronic 1, H410	LONG-TERM (CHRONIC) HAZARD TO THE AQUATIC ENVIRONMENT - Category 1
Aquatic Chronic 2, H411	LONG-TERM (CHRONIC) HAZARD TO THE AQUATIC ENVIRONMENT - Category 2
Aquatic Chronic 3, H412	LONG-TERM (CHRONIC) HAZARD TO THE AQUATIC ENVIRONMENT - Category 3
Asp. Tox. 1, H304	ASPIRATION HAZARD - Category 1
Carc. 2, H351	CARCINOGENICITY - Category 2
EUH066	Repeated exposure may cause skin dryness or cracking.
Eye Irrit. 2, H319	SERIOUS EYE DAMAGE / EYE IRRITATION - Category 2
Flam. Liq. 2, H225	FLAMMABLE LIQUIDS - Category 2
Flam. Liq. 3, H226	FLAMMABLE LIQUIDS - Category 3 FLAMMABLE SOLIDS -
Flam. Sol. 1, H228	Category 1 SKIN CORROSION / IRRITATION - Category 2
Skin Irrit. 2, H315	SKIN SENSITIZATION - Category 1 SKIN SENSITIZATION -
Skin Sens. 1, H317	Category 1B SPECIFIC TOXICITY TO TARGET ORGANS
Skin Sens. 1B, H317	(REPEATED EXPOSURE) - Category 2
STOT RE 2, H373	
STOT SE 3, H335	SPECIFIC TOXICITY TO TARGET ORGANS (SINGLE EXPOSURE) (Irritation of the respiratory tract) - Category 3
STOT SE 3, H336	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcosis) - Category 3 SUBSTANCES AND MIXTURES WHICH,
Water-react. 2, H261	IN CONTACT WITH WATER, DEVELOP FLAMMABLE GASES - Category 2

History

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SECTION 16: other information

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Prepared by : EHS

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Disclaimer of Liability

The information contained in this safety data sheet is based on the current state of our scientific and technical knowledge. The purpose of this document is to communicate the danger to health and safety and to provide precautions for the use and storage of the products we supply. This document should not be regarded as a guarantee of specific product properties. No responsibility can be accepted in case of non-observance of the prevention and protection measures indicated in this sheet and of the laws and regulations in force regarding hygiene and safety or for any improper use of the product.