SAFETY DATA SHEET

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

1.1 Product identifier

Product name : INVERPUR SM. MU N.8 SEMIOP. NERO RAL 9005

Product code : 35085

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

Material uses : Paint or paint related material.

: Industrial use only.

1.3 Details of the supplier of the safety data sheet

Inver S.p.A. con Unico Socio
Via di Corticella 205 - Bologna
Phone: +39 051 6380411

e-mail address of person responsible for this SDS : minerbio.regulatory@sherwin.com

1.4 Emergency telephone number

National advisory body/Poison Centre

Telephone number : 111 (general public) /0344 892 111 (Medical professional (NHS) only)

Supplier

Telephone number : +39 051 6606811

Hours of operation : 08:30 - 17:30

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : Mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Aquatic Chronic 2, H411

The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

Hazard pictograms :



Signal word : No signal word.

Hazard statements : Toxic to aquatic life with long lasting effects.

Precautionary statements

Prevention : Avoid release to the environment.

Response : Collect spillage.

Storage : Not applicable.

SECTION 2: Hazards identification

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

Supplemental label elements : Contains 2,4,7,9-tetramethyldec-5-yne-4,7-diol. May produce an allergic reaction. FOR INDUSTRIAL USE ONLY

Special packaging requirements

Not applicable.

2.3 Other hazards

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Other hazards which do not result in classification : None known.

SECTION 3: Composition/information on ingredients

3.2 Mixture :

Product/ingredient name	Identifiers	%	Classification	Specific Conc. Limits, M-factors and ATEs	Type
Zinc Phosphate	EC: 231-944-3 CAS: 7779-90-0 Index: 030-011-00-6	≤10	Aquatic Acute 1, H400 Aquatic Chronic 1, H410	M [Acute] = 1 M [Chronic] = 1	[1]
2-Butoxyethanol	REACH #: 01-2119475108-36 EC: 203-905-0 CAS: 111-76-2 Index: 603-014-00-0	≤3	Acute Tox. 4, H302 Acute Tox. 3, H331 Skin Irrit. 2, H315 Eye Irrit. 2, H319	ATE [Oral] = 1200 mg/kg ATE [Inhalation (vapours)] = 3 mg/l	[1] [2]
HYDROCARBONS, C9, aromatics	REACH #: 01-2119455851-35 CAS: - Index: 649-356-00-4	≤3	Flam. Liq. 3, H226 STOT SE 3, H335 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Chronic 2, H411 EUH066	-	[1]
Tetramethyl Decynediol	REACH #: 01-2119954390-39 EC: 204-809-1 CAS: 126-86-3	≤0.3	Eye Dam. 1, H318 Skin Sens. 1, H317 Aquatic Chronic 3, H412	-	[1]
zinc oxide	REACH #: 01-2119463881-32 EC: 215-222-5 CAS: 1314-13-2 Index: 030-013-00-7	≤0.3	Aquatic Acute 1, H400 Aquatic Chronic 1, H410 **See Section 16 for the full text of the H statements declared above.**	M [Acute] = 1 M [Chronic] = 1	[1]

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

Type

[1] Substance classified with a health or environmental hazard
[2] Substance with a workplace exposure limit

SECTION 3: Composition/information on ingredients

Occupational exposure limits, if available, are listed in Section 8.

SECTION 4: First aid measures

4.1 Description of first aid measures

General : In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and seek medical advice.

Eye contact : Remove contact lenses, irrigate copiously with clean, fresh water, holding the eyelids apart for at least 10 minutes and seek immediate medical advice.

Inhalation : Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.

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

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

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training.

4.2 Most important symptoms and effects, both acute and delayed

There are no data available on the mixture itself. Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]. See Sections 2 and 3 for details.

Exposure to component solvent vapour concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness.
Solvents may cause some of the above effects by absorption through the skin. Repeated or prolonged contact with the mixture may cause removal of natural fat from the skin, resulting in non-allergic contact dermatitis and absorption through the skin.
If splashed in the eyes, the liquid may cause irritation and reversible damage.
This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

Contains 2,4,7,9-tetramethyldec-5-yne-4,7-diol. May produce an allergic reaction.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific treatments : No specific treatment.

See toxicological information (Section 11)

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Recommended: alcohol-resistant foam, CO_2, powders, water spray or mist.

Unsuitable extinguishing media : Do not use water jet.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture : Fire will produce dense black smoke. Exposure to decomposition products may cause a health hazard.

SECTION 5: Firefighting measures

Hazardous combustion products : Decomposition products may include the following materials: carbon monoxide, carbon dioxide, smoke, oxides of nitrogen.

5.3 Advice for firefighters

Special protective actions for fire-fighters : Cool closed containers exposed to fire with water. Do not release runoff from fire to drains or watercourses.

Special protective equipment for fire-fighters : Fire-fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear.

SECTION 6: Accidental release measures

Due to the organic solvents content of the mixture:

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : Exclude sources of ignition and ventilate the area. Avoid breathing vapour or mist. Refer to protective measures listed in sections 7 and 8.

Keep unnecessary and unprotected personnel from entering.

For emergency responders : If specialised 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 personnel".

6.2 Environmental precautions : Do not allow to enter drains or watercourses. If the product contaminates lakes, rivers, or sewers, inform the appropriate authorities in accordance with local regulations.

6.3 Methods and material for containment and cleaning up : Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Preferably clean with a detergent. Avoid using solvents.

6.4 Reference to other sections : See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

7.1 Precautions for safe handling : Due to the organic solvents content of the mixture:

Prevent the creation of flammable or explosive concentrations of vapours in air and avoid vapour concentrations higher than the occupational exposure limits.
In addition, the product should only be used in areas from which all naked lights and other sources of ignition have been excluded. Electrical equipment should be protected to the appropriate standard.
Keep away from heat, sparks and flame. No sparking tools should be used.
Avoid contact with skin and eyes. Avoid the inhalation of dust, particulates, spray or mist arising from the application of this mixture. Avoid inhalation of dust from sanding.
Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed.
Put on appropriate personal protective equipment (see Section 8).
Never use pressure to empty. Container is not a pressure vessel.
Always keep in containers made from the same material as the original one.
Comply with the health and safety at work laws.
Information on fire and explosion protection
Vapours are heavier than air and may spread along floors. Vapours may form explosive mixtures with air.

SECTION 7: Handling and storage

7.2 Conditions for safe storage, including any incompatibilities : Store in accordance with local regulations.

Notes on joint storage

Keep away from: oxidising agents, strong alkalis, strong acids.

Additional information on storage conditions

Observe label precautions. Store in a dry, cool and well-ventilated area. Keep away from heat and direct sunlight.

Keep container tightly closed.

Keep away from sources of ignition. No smoking. Prevent unauthorised access. Containers that have been opened must be carefully resealed and kept upright to prevent leakage.

Contaminated absorbent material may pose the same hazard as the spilt product.

Store above 5°C (42°F) Protect from frost.

7.3 Specific end use(s)

Recommendations : Not available.

Industrial sector specific solutions : Not available.

Good housekeeping standards, regular safe removal of waste materials and regular maintenance of spray booth filters will minimise the risks of spontaneous combustion and other fire hazards.

Before use of this material please refer to the Exposure Scenario(s) if attached for the specific end use, control measures and additional PPE considerations.

SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

8.1 Control parameters

Occupational exposure limits

Product/ingredient name	Exposure limit values
2-Butoxyethanol	**EH40/2005 WELs (United Kingdom (UK), 1/2020). Absorbed through skin.** STEL: 50 ppm 15 minutes. TWA: 25 ppm 8 hours. STEL: 246 mg/m³ 15 minutes. TWA: 123 mg/m³ 8 hours.

Biological exposure indices

Product/ingredient name	Exposure indices
2-butoxyethanol	**EH40/2005 BMGVs (United Kingdom (UK), 8/2018)** BGV: 240 mmol/mol creatinine, butoxyacetic acid [in urine]. Sampling time: post shift.

Recommended monitoring procedures : Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

: Regular monitoring of all work areas should be carried out at all times, including areas that may not be equally ventilated.

DNELs/DMELs

SECTION 8: Exposure controls/personal protection

Product/ingredient name	Type	Exposure	Value	Population	Effects
2-Butoxyethanol	DNEL	Short term Dermal	89 mg/kg bw/day	Workers	Systemic
	DNEL	Short term Inhalation	1091 mg/m³	Workers	Systemic
	DNEL	Short term Inhalation	246 mg/m³	Workers	Local
	DNEL	Long term Dermal	125 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	98 mg/m³	Workers	Systemic
	DNEL	Short term Inhalation	426 mg/m³	General population	Systemic
	DNEL	Short term Oral	26.7 mg/kg bw/day	General population	Systemic
	DNEL	Short term Dermal	89 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	75 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	147 mg/m³	General population	Local
	DNEL	Long term Inhalation	59 mg/m³	General population	Systemic
	DNEL	Long term Oral	6.3 mg/kg bw/day	General population	Systemic
HYDROCARBONS, C9, aromatics	DNEL	Long term Dermal	25 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	150 mg/m³	Workers	Systemic
	DNEL	Long term Dermal	11 mg/kg bw/day	General population [Consumers]	Systemic
	DNEL	Long term Inhalation	32 mg/m³	General population [Consumers]	Systemic
	DNEL	Long term Oral	11 mg/kg bw/day	General population [Consumers]	Systemic
zinc oxide	DNEL	Long term Inhalation	5 mg/m³	Workers	Systemic
	DNEL	Long term Inhalation	0.5 mg/m³	Workers	Local
	DNEL	Long term Dermal	83 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	2.5 mg/m³	General population	Systemic
	DNEL	Long term Dermal	83 mg/kg bw/day	General population	Systemic
	DNEL	Long term Oral	0.83 mg/kg bw/day	General population	Systemic

PNECs

SECTION 8: Exposure controls/personal protection

Product/ingredient name	Compartment Detail	Value	Method Detail
2-Butoxyethanol	Fresh water	8.8 mg/l	-
	Marine water	0.88 mg/l	-
	Sewage Treatment Plant	463 mg/l	-
	Fresh water sediment	34.6 mg/kg dwt	-
	Marine water sediment	3.46 mg/kg dwt	-
	Soil	2.33 mg/kg dwt	-
zinc oxide	Fresh water	0.0206 mg/l	-
	Marine water	0.0061 mg/l	-
	Sewage Treatment Plant	0.1 mg/l	-
	Fresh water sediment	117.8 mg/kg dwt	-
	Marine water sediment	56.5 mg/kg dwt	-
	Soil	35.6 mg/kg dwt	-

8.2 Exposure controls

Appropriate engineering controls : Provide adequate ventilation. Where reasonably practicable, this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and solvent vapours below the OEL, suitable respiratory protection must be worn.

: Users are advised to consider national Occupational Exposure Limits or other equivalent values.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Use safety eyewear designed to protect against splash of liquids.

Skin protection

Hand protection : Wear suitable gloves tested to EN374.

Gloves : Gloves for short term exposure/splash protection (less than 10 min.): Nitrile>0.12 mm
Gloves for splash protection need to be changed immediately when in contact with chemicals.
Gloves for repeated or prolonged exposure (breakthrough time>480 min.): Butyl gloves>0.3 mm
Due to many conditions (e.g. temperature, abrasion) the practical usage of a chemical protective glove in practice may be much shorter than the permeation time determined through testing.
The recommendation for the type or types of glove to use when handling this product is based on information from the following source: Solvent resin manufacturers and European Solvents Industry Group (ESIG)

There is no one glove material or combination of materials that will give unlimited resistance to any individual or combination of chemicals.
The breakthrough time must be greater than the end use time of the product.
The instructions and information provided by the glove manufacturer on use, storage, maintenance and replacement must be followed.
Gloves should be replaced regularly and if there is any sign of damage to the glove material.
Always ensure that gloves are free from defects and that they are stored and used correctly.
The performance or effectiveness of the glove may be reduced by physical/chemical damage and poor maintenance.
Barrier creams may help to protect the exposed areas of the skin but should not be applied once exposure has occurred.

SECTION 8: Exposure controls/personal protection

The user must check that the final choice of type of glove selected for handling this product is the most appropriate and takes into account the particular conditions of use, as included in the user's risk assessment.

Body protection : Personnel should wear protective clothing.

: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection : Use a properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary. Recommended: A2P2 (EN14387). Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Environmental exposure controls : Do not allow to enter drains or watercourses.

Before use of this material please refer to the Exposure Scenario(s) if attached for the specific end use, control measures and additional PPE considerations. The information contained in this safety data sheet does not constitute the user's own assessment of workplace risks, as required by other health and safety legislation. The provisions of the national health and safety at work regulations apply to the use of this product at work.

SECTION 9: Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

9.1 Information on basic physical and chemical properties

Appearance

Physical state : Liquid.

Colour : Black.

Odour : Paint

Odour threshold : Not Available (Not Tested).

pH : 6.8

Melting point/freezing point : Not relevant/applicable due to nature of the product.

Initial boiling point and boiling range : 100°C

Flash point : Closed cup: Not applicable.

Evaporation rate : 89 (butyl acetate = 1)

Flammability : Not relevant/applicable due to nature of the product.

Lower and upper explosion limit : LEL: 0.7% (Light Aromatic Hydrocarbons)
UEL: 10.6% (2-Butoxyethanol)

Vapour pressure : 2.3 kPa (17.5 mm Hg)

Relative vapour density : 1 [Air = 1]

Relative density : 1.15

Solubility(ies) :

Media	Result
cold water	Partially soluble

Partition coefficient: n-octanol/water : Not relevant/applicable due to nature of the product.

Auto-ignition temperature :

SECTION 9: Physical and chemical properties

Ingredient name	°C	°F	Method
2-Butoxyethanol	230	446	

Decomposition temperature : Not relevant/applicable due to nature of the product.

Viscosity : Kinematic (40°C): >20.5 mm^2/s

Explosive properties : Under normal conditions of storage and use, hazardous reactions will not occur.

Oxidising properties : Under normal conditions of storage and use, hazardous reactions will not occur.

Particle characteristics

Median particle size : Not relevant/applicable due to nature of the product.

9.2 Other information

Heat of combustion : 1.54 kJ/g

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 : Stable under recommended storage and handling conditions (see Section 7).

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

10.4 Conditions to avoid : When exposed to high temperatures may produce hazardous decomposition products.

10.5 Incompatible materials : Keep away from the following materials to prevent strong exothermic reactions: oxidising agents, strong alkalis, strong acids.

10.6 Hazardous decomposition products : Decomposition products may include the following materials: carbon monoxide, carbon dioxide, smoke, oxides of nitrogen.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

SECTION 11: Toxicological information

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

There are no data available on the mixture itself. Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]. See Sections 2 and 3 for details.

Exposure to component solvent vapour concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness.
Solvents may cause some of the above effects by absorption through the skin. Repeated or prolonged contact with the mixture may cause removal of natural fat from the skin, resulting in non-allergic contact dermatitis and absorption through the skin.
If splashed in the eyes, the liquid may cause irritation and reversible damage.
This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

Contains 2,4,7,9-tetramethyldec-5-yne-4,7-diol. May produce an allergic reaction.

Acute toxicity

SECTION 11: Toxicological information

Product/ingredient name	Result	Species	Dose	Exposure
2-Butoxyethanol	LCLo Inhalation Vapour	Guinea pig	>3.1 mg/l	1 hours
	LD50 Dermal	Guinea pig	>2000 mg/kg	-
	LD50 Oral	Rat	1300 mg/kg	-
HYDROCARBONS, C9, aromatics	LD50 Oral	Rat	8400 mg/kg	-

Acute toxicity estimates

Route	ATE value
Oral	66666.67 mg/kg
Inhalation (vapours)	166.67 mg/l

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
2-Butoxyethanol	Eyes - Moderate irritant	Rabbit	-	24 hours 100 mg	-
	Eyes - Severe irritant	Rabbit	-	100 mg	-
	Skin - Mild irritant	Rabbit	-	500 mg	-
HYDROCARBONS, C9, aromatics	Eyes - Mild irritant	Rabbit	-	24 hours 100 uL	-
Tetramethyl Decynediol	Eyes - Severe irritant	Rabbit	-	0.1 Ml	-
	Skin - Mild irritant	Rabbit	-	0.5 g	-
zinc oxide	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-

Conclusion/Summary **:** Not available.

Sensitisation

No data available

Conclusion/Summary **:** Not available.

Mutagenicity

No data available

Carcinogenicity

No data available

Reproductive toxicity

No data available

Teratogenicity

No data available

Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
HYDROCARBONS, C9, aromatics	Category 3	-	Respiratory tract irritation
	Category 3		Narcotic effects

Specific target organ toxicity (repeated exposure)

No data available

Aspiration hazard

SECTION 11: Toxicological information

Product/ingredient name	Result
HYDROCARBONS, C9, aromatics	ASPIRATION HAZARD - Category 1

11.2 Information on other hazards

11.2.1 Endocrine disrupting properties

Not available.

11.2.2 Other information

Not available.

SECTION 12: Ecological information

12.1 Toxicity

There are no data available on the mixture itself.
Do not allow to enter drains or watercourses.

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]. See Sections 2 and 3 for details.

Product/ingredient name	Result	Species	Exposure
Zinc Phosphate	Acute LC50 90 µg/l Fresh water	Fish - *Oncorhynchus mykiss*	96 hours
2-Butoxyethanol	Acute EC50 >1000 mg/l Fresh water	Daphnia - *Daphnia magna*	48 hours
	Acute LC50 800000 µg/l Marine water	Crustaceans - *Crangon crangon*	48 hours
	Acute LC50 1250 ppm Marine water	Fish - *Menidia beryllina*	96 hours
zinc oxide	Acute IC50 1.85 mg/l Marine water	Algae - *Skeletonema costatum*	96 hours
	Acute LC50 98 µg/l Fresh water	Daphnia - *Daphnia magna* - Neonate	48 hours
	Acute LC50 1.1 ppm Fresh water	Fish - *Oncorhynchus mykiss*	96 hours

12.2 Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
No data available				

Conclusion/Summary : Not available.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
2-Butoxyethanol	-	-	Readily
HYDROCARBONS, C9, aromatics	-	-	Readily

12.3 Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
Zinc Phosphate	-	60960	High
HYDROCARBONS, C9, aromatics	-	10 to 2500	High
zinc oxide	-	28960	High

12.4 Mobility in soil

Soil/water partition coefficient (K_{OC}) : Not available.

Mobility : Not available.

12.5 Results of PBT and vPvB assessment

SECTION 12: Ecological information

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

12.6 Endocrine disrupting properties

Not available.

12.7 Other adverse effects

No known significant effects or critical hazards.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Methods of disposal : The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

Hazardous waste : Yes.

European waste catalogue (EWC) : waste paint and varnish containing organic solvents or other hazardous substances 08 01 11*

Disposal considerations : Do not allow to enter drains or watercourses.
Dispose of according to all federal, state and local applicable regulations.
If this product is mixed with other wastes, the original waste product code may no longer apply and the appropriate code should be assigned.
For further information, contact your local waste authority.

Packaging

Methods of disposal : The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

Disposal considerations : Using information provided in this safety data sheet, advice should be obtained from the relevant waste authority on the classification of empty containers. Empty containers must be scrapped or reconditioned. Dispose of containers contaminated by the product in accordance with local or national legal provisions.

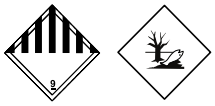
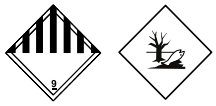
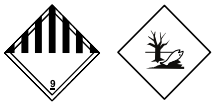
European waste catalogue (EWC) : packaging containing residues of or contaminated by hazardous substances 15 01 10*

Special precautions : This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

	ADR/RID	IMDG	IATA
14.1 UN number or ID number	UN3082	UN3082	UN3082
14.2 UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Zinc Phosphate, HYDROCARBONS, C9, aromatics)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Zinc Phosphate, Light Aromatic Hydrocarbons). Marine pollutant (Zinc Phosphate, Light Aromatic Hydrocarbons)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Zinc Phosphate, Light Aromatic Hydrocarbons)

SECTION 14: Transport information

14.3 Transport Hazard Class(es)/ Label(s)	9 	9 	9 
14.4 Packing group	III	III	III
14.5 Environmental hazards	Yes.	Yes.	Yes.
Additional information	This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8. **Tunnel code** (-)	This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8. **Emergency schedules** F-A, S-F	This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 5.0.2.4.1, 5.0.2.6.1.1 and 5.0.2.8.

14.6 Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

14.7 Maritime transport in bulk according to IMO instruments : Not applicable.

Multi-modal shipping descriptions are provided for informational purposes and do not consider container sizes. The presence of a shipping description for a particular mode of transport (sea, air, etc.), does not indicate that the product is packaged suitably for that mode of transport. All packaging must be reviewed for suitability prior to shipment, and compliance with the applicable regulations is the sole responsibility of the person offering the product for transport. People loading and unloading dangerous goods must be trained on all of the risks deriving from the substances and on all actions in case of emergency situations.

SECTION 15: Regulatory information

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

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

Annex XIV - List of substances subject to authorisation

Annex XIV

None of the components are listed.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

Product/ingredient name	%	Designation [Usage]
INVERPUR SM. MU N.8 SEMIOP. NERO RAL 9005	≥90	3
octamethylcyclotetrasiloxane	<0.01	70

Labelling : Not applicable.

Other EU regulations

VOC content (2010/75/EU) : 3.9 **w/w**
45 **g/l**

Explosive precursors : Not applicable.

Seveso Directive

SECTION 15: Regulatory information

This product may add to the calculation for determining whether a site is within the scope of the Seveso Directive on major accident hazards.

National regulations

15.2 Chemical safety assessment : No Chemical Safety Assessment has been carried out.

SECTION 16: Other information

Indicates information that has changed from previously issued version.

Abbreviations and acronyms :
ATE = Acute Toxicity Estimate
CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
DMEL = Derived Minimal Effect Level
DNEL = Derived No Effect Level
EUH statement = CLP-specific Hazard statement
PBT = Persistent, Bioaccumulative and Toxic
PNEC = Predicted No Effect Concentration
RRN = REACH Registration Number
vPvB = Very Persistent and Very Bioaccumulative
N/A = Not available

Key literature references and sources for data :
Regulation (EC) No. 1272/2008 [CLP]
ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road
IATA = International Air Transport Association
IMDG = International Maritime Dangerous Goods
Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Commission Regulation (EU) 2020/878
Directive 2012/18/EU, and relative amendments & additions
Directive 2008/98/EC, and relative amendments & additions
Directive 2009/161/EU, and relative amendments & additions
CEPE Guidelines

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

Classification	Justification
Aquatic Chronic 2, H411	Calculation method

Full text of abbreviated H statements :

H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
EUH066	Repeated exposure may cause skin dryness or cracking.

SECTION 16: Other information

Full text of classifications [CLP/GHS]	:	Acute Tox. 3	ACUTE TOXICITY - Category 3
		Acute Tox. 4	ACUTE TOXICITY - Category 4
		Aquatic Acute 1	SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 1
		Aquatic Chronic 1	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 1
		Aquatic Chronic 2	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2
		Aquatic Chronic 3	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3
		Asp. Tox. 1	ASPIRATION HAZARD - Category 1
		Eye Dam. 1	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1
		Eye Irrit. 2	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2
		Flam. Liq. 3	FLAMMABLE LIQUIDS - Category 3
		Skin Irrit. 2	SKIN CORROSION/IRRITATION - Category 2
		Skin Sens. 1	SKIN SENSITISATION - Category 1
		STOT SE 3	SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 3
Date of printing	:	21, Mar, 2024.	
Date of issue/ Date of revision	:	21, Mar, 2024	
Date of previous issue	:	27, Jan, 2024	
	:	If there is no previous validation date please contact your supplier for more information.	
Version	:	10	

Notice to reader

In accordance with Regulation (EC) 1907/2006, REACH Regulation, Articles 31, 37, any required hazard-related information on the use of substances received as downstream user will be sent forward. Consequently, the safety data sheets for some products will contain a SUMI - Safe Use of Mixture Information - attached to the safety data sheet.

SUMI(s) will be added to the SDS for products if both the following conditions are met:

• The product is classified as hazardous for health
• The product contains one or more REACH-registered substances for which extended safety data sheets (exposure scenarios) have been provided

It is recommended that each customer or recipient of this Safety Data Sheet (SDS) study it carefully and consult resources, as necessary or appropriate, to become make themselves aware of and understand the data contained in this SDS and any hazards that may be associated with the product. This information is provided in good faith and believed to be accurate as of the effective date mentioned herein. However, no warranty, express or implied, is given. The information presented here applies only to the product as shipped. The addition of any material can may change later the composition, hazards and risks of the product. Products shall should not be repackaged, modified, or tinted except as specifically instructed by the manufacturer, including but not limited to, the incorporation of products not specified by the manufacturer, or the use or addition of products in proportions not specified by the manufacturer. Regulatory requirements are subject to change and may differ between various locations and jurisdictions. The customer/buyer/user is responsible to ensure that his activities comply with all country, federal, state, provincial or local laws. The conditions for the use of the product are not under the manufacturer's control of the manufacturer; the customer/buyer/user is responsible to for determine determining the conditions necessary for the safe use of this product. The customer/buyer/user should not use the product for any purpose other than the purpose shown in the applicable section of this SDS, without first referring to the supplier and obtaining written handling instructions. Due to the proliferation of sources for information such as manufacturer-specific SDS, the manufacturer cannot be held responsible for SDSs obtained from any other source.

SUMI
Safe Use of Mixtures
Information for end-users

Title : Industrial spray painting, enclosed

This document is intended to communicate the conditions of safe use for the product and should always be read in combination with the product's Safety Data Sheet, Technical Data sheet and labels.

General description of the process covered

Paint application on industrial line with fully-enclosed spraying

Operational conditions

Place of use : Indoor use

Risk management measures (RMM)

Contributing activity	Process category (ies)	Maximum duration	Ventilation	
			Type	ach (air changes per hour)
Preparation of material for application	PROC05	More than 4 hours	Enhanced (mechanical) room ventilation	5 - 10
Loading of application equipment and handling of coated parts before curing	PROC08b	More than 4 hours	Enhanced (mechanical) room ventilation	5 - 10
Industrial application of coatings and inks by spraying	PROC07	More than 4 hours	Full containment/extraction	100 or equivalent
Film formation - force drying, stoving and other technologies	PROC02	More than 4 hours	Enhanced (mechanical) room ventilation	5 - 10
Cleaning	PROC05	More than 4 hours	Local exhaust ventilation	Refer to relevant technical standards
Application equipment cleaning outside booth	PROC05	More than 4 hours	Enhanced (mechanical) room ventilation	5 - 10
Waste management	PROC08b	More than 4 hours	Enhanced (mechanical) room ventilation	5 - 10

Contributing activity	Process category (ies)	Respiratory	Eye	Hands
Preparation of material for application	PROC05	None	Use eye protection according to EN 166.	Wear suitable gloves tested to EN374.
Loading of application equipment and handling of coated parts before curing	PROC08b	None	Use eye protection according to EN 166.	Wear suitable gloves tested to EN374.
Industrial application of coatings and inks by spraying	PROC07	None	None	None
Film formation - force drying, stoving and other technologies	PROC02	None	None	None
Cleaning	PROC05	None	Use eye protection according to EN 166.	Wear suitable gloves tested to EN374.
Application equipment cleaning outside booth	PROC05	None	Use eye protection according to EN 166.	Wear suitable gloves tested to EN374.

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Waste management	PROC08b	None	Use eye protection according to EN 166.	Wear suitable gloves tested to EN374.

See chapter 8 of this Safety Data Sheet for specifications.





Disclaimer

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No liability is accepted for any damage, no matter of what kind, which is direct or indirect consequence of acts and/or decisions (partly) based on the contents of this document.

SUMI
Safe Use of Mixtures
Information for end-users

Title : Industrial application of coatings and inks by other than spraying-Enclosed

This document is intended to communicate the conditions of safe use for the product and should always be read in combination with the product's Safety Data Sheet, Technical Data sheet and labels.

General description of the process covered

Paint application on industrial line by brush, roller, dipping, spreading, coil, fluidised bed or curtain coating (enclosed application)

Operational conditions

Place of use : Indoor use

Risk management measures (RMM)

Contributing activity	Process category (ies)	Maximum duration	Ventilation	
			Type	ach (air changes per hour)
Preparation of material for application	PROC05	More than 4 hours	Enhanced (mechanical) room ventilation	5 - 10
Loading of application equipment and handling of coated parts before curing	PROC08b	More than 4 hours	Enhanced (mechanical) room ventilation	5 - 10
Industrial application of coatings and inks by other than spraying	PROC10, PROC13	More than 4 hours	Local exhaust ventilation	Refer to relevant technical standards
Film formation - force drying, stoving and other technologies	PROC02	More than 4 hours	Enhanced (mechanical) room ventilation	5 - 10
Cleaning	PROC05	More than 4 hours	Local exhaust ventilation	Refer to relevant technical standards
Application equipment cleaning outside booth	PROC05	More than 4 hours	Enhanced (mechanical) room ventilation	5 - 10
Waste management	PROC08b	More than 4 hours	Enhanced (mechanical) room ventilation	5 - 10

Contributing activity	Process category (ies)	Respiratory	Eye	Hands
Preparation of material for application	PROC05	None	Use eye protection according to EN 166.	Wear suitable gloves tested to EN374.
Loading of application equipment and handling of coated parts before curing	PROC08b	None	Use eye protection according to EN 166.	Wear suitable gloves tested to EN374.
Industrial application of coatings and inks by other than spraying	PROC10, PROC13	None	None	None
Film formation - force drying, stoving and other technologies	PROC02	None	None	None
Cleaning	PROC05	None	Use eye protection according to EN 166.	Wear suitable gloves tested to EN374.

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Application equipment cleaning outside booth	PROC05	None	Use eye protection according to EN 166.	Wear suitable gloves tested to EN374.
Waste management	PROC08b	None	Use eye protection according to EN 166.	Wear suitable gloves tested to EN374.

See chapter 8 of this Safety Data Sheet for specifications.





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SUMI
Safe Use of Mixtures
Information for end-users

Title : Industrial spray painting, no booth

This document is intended to communicate the conditions of safe use for the product and should always be read in combination with the product's Safety Data Sheet, Technical Data sheet and labels.

General description of the process covered

Paint application on industrial line with no enclosure (only local exhaust ventilation)

Operational conditions

Place of use : Indoor use

Risk management measures (RMM)

Contributing activity	Process category (ies)	Maximum duration	Ventilation	
			Type	ach (air changes per hour)
Preparation of material for application	PROC05	More than 4 hours	Enhanced (mechanical) room ventilation	5 - 10
Loading of application equipment and handling of coated parts before curing	PROC08b	More than 4 hours	Enhanced (mechanical) room ventilation	5 - 10
Industrial application of coatings and inks by spraying	PROC07	More than 4 hours	Local exhaust ventilation	Refer to relevant technical standards
Film formation - force drying, stoving and other technologies	PROC04	More than 4 hours	Enhanced (mechanical) room ventilation	5 - 10
Cleaning	PROC05	More than 4 hours	Enhanced (mechanical) room ventilation	5 - 10
Waste management	PROC08b	More than 4 hours	Enhanced (mechanical) room ventilation	5 - 10

Contributing activity	Process category (ies)	Respiratory	Eye	Hands
Preparation of material for application	PROC05	None	Use eye protection according to EN 166.	Wear suitable gloves tested to EN374.
Loading of application equipment and handling of coated parts before curing	PROC08b	None	Use eye protection according to EN 166.	Wear suitable gloves tested to EN374.
Industrial application of coatings and inks by spraying	PROC07	Wear a respirator conforming to EN140 with an assigned protection factor of at least 10.	Use eye protection according to EN 166.	Wear suitable gloves tested to EN374.
Film formation - force drying, stoving and other technologies	PROC04	None	None	None
Cleaning	PROC05	None	Use eye protection according to EN 166.	Wear suitable gloves tested to EN374.
Waste management	PROC08b	None	Use eye protection according to EN 166.	Wear suitable gloves tested to EN374.

See chapter 8 of this Safety Data Sheet for specifications.

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SUMI
Safe Use of Mixtures
Information for end-users

Title : Industrial spray painting, walk-in booth

This document is intended to communicate the conditions of safe use for the product and should always be read in combination with the product's Safety Data Sheet, Technical Data sheet and labels.

General description of the process covered

Paint application on industrial line with walk-in spray booth

Operational conditions

Place of use : Indoor use

Risk management measures (RMM)

Contributing activity	Process category (ies)	Maximum duration	Ventilation	
			Type	ach (air changes per hour)
Preparation of material for application	PROC05	More than 4 hours	Enhanced (mechanical) room ventilation	5 - 10
Loading of application equipment and handling of coated parts before curing	PROC08b	More than 4 hours	Enhanced (mechanical) room ventilation	5 - 10
Industrial application of coatings and inks by spraying	PROC07	More than 4 hours	Local exhaust ventilation	Refer to relevant technical standards
Film formation - force drying, stoving and other technologies	PROC04	More than 4 hours	Enhanced (mechanical) room ventilation	5 - 10
Cleaning	PROC05	More than 4 hours	Local exhaust ventilation	Refer to relevant technical standards
Application equipment cleaning outside booth	PROC05	More than 4 hours	Enhanced (mechanical) room ventilation	5 - 10
Waste management	PROC08b	More than 4 hours	Enhanced (mechanical) room ventilation	5 - 10

Contributing activity	Process category (ies)	Respiratory	Eye	Hands
Preparation of material for application	PROC05	None	Use eye protection according to EN 166.	Wear suitable gloves tested to EN374.
Loading of application equipment and handling of coated parts before curing	PROC08b	None	Use eye protection according to EN 166.	Wear suitable gloves tested to EN374.
Industrial application of coatings and inks by spraying	PROC07	Compressed-air breathing apparatus to EN 14594 with an assigned protection factor of at least 20.	Use eye protection according to EN 166.	Wear suitable gloves tested to EN374.
Film formation - force drying, stoving and other technologies	PROC04	None	None	None
Cleaning	PROC05	None	Use eye protection according to EN 166.	Wear suitable gloves tested to EN374.
Application equipment	PROC05	None	Use eye protection	Wear suitable gloves

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cleaning outside booth			according to EN 166.	tested to EN374.
Waste management	PROC08b	None	Use eye protection according to EN 166.	Wear suitable gloves tested to EN374.

See chapter 8 of this Safety Data Sheet for specifications.



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SUMI
Safe Use of Mixtures
Information for end-users

Title : Industrial application of coatings and inks by other than spraying-Local exhaust ventilation

This document is intended to communicate the conditions of safe use for the product and should always be read in combination with the product's Safety Data Sheet, Technical Data sheet and labels.

General description of the process covered

Paint application on industrial line by brush, roller, dipping, spreading, coil, fluidised bed or curtain coating (local exhaust ventilation only)

Operational conditions

Place of use : Indoor use

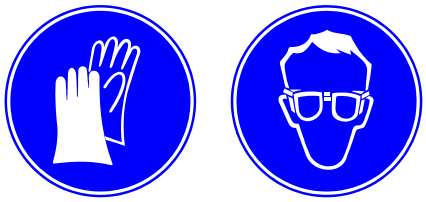
Risk management measures (RMM)

Contributing activity	Process category (ies)	Maximum duration	Ventilation	
			Type	ach (air changes per hour)
Preparation of material for application	PROC05	More than 4 hours	Enhanced (mechanical) room ventilation	5 - 10
Loading of application equipment and handling of coated parts before curing	PROC08b	More than 4 hours	Enhanced (mechanical) room ventilation	5 - 10
Industrial application of coatings and inks by other than spraying	PROC10, PROC13	More than 4 hours	Local exhaust ventilation	Refer to relevant technical standards
Film formation - force drying, stoving and other technologies	PROC04	More than 4 hours	Enhanced (mechanical) room ventilation	5 - 10
Cleaning	PROC05	More than 4 hours	Enhanced (mechanical) room ventilation	5 - 10
Waste management	PROC08b	More than 4 hours	Enhanced (mechanical) room ventilation	5 - 10

Contributing activity	Process category (ies)	Respiratory	Eye	Hands
Preparation of material for application	PROC05	None	Use eye protection according to EN 166.	Wear suitable gloves tested to EN374.
Loading of application equipment and handling of coated parts before curing	PROC08b	None	Use eye protection according to EN 166.	Wear suitable gloves tested to EN374.
Industrial application of coatings and inks by other than spraying	PROC10, PROC13	None	Use eye protection according to EN 166.	Wear suitable gloves tested to EN374.
Film formation - force drying, stoving and other technologies	PROC04	None	None	None
Cleaning	PROC05	None	Use eye protection according to EN 166.	Wear suitable gloves tested to EN374.
Waste management	PROC08b	None	Use eye protection according to EN 166.	Wear suitable gloves tested to EN374.

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See chapter 8 of this Safety Data Sheet for specifications.



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