

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1 Product identifier**

Product name : Centrecoat Zinc Phosphate Primer 580
Product description : Paint.
Product type : Liquid.
UFI : Q5C0-X08N-700Q-TNU7

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

Identified uses	
Industrial use Professional use	
Uses advised against	Reason
Consumer use	Product is not intended for consumer use.

1.3 Details of the supplier of the safety data sheet

Promain UK Limited, C1 Pierson Court, Knowl Piece, Hitchin, Hertfordshire, SG4
OTY Telephone no.: 01462 421333

e-mail address of person responsible for this SDS : info@promain.co.uk

1.4 Emergency telephone number**Supplier**

Telephone number : 01462 421333
Hours of operation : Mon to Thurs 08.30-17.30. Fri 08.30-16.30

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]

Flam. Liq. 3, H226

STOT SE 3, H336

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

SECTION 2: Hazards identification

Hazard pictograms	:	  
Signal word	:	Warning
Hazard statements	:	Flammable liquid and vapour. May cause drowsiness or dizziness. Toxic to aquatic life with long lasting effects.
<u>Precautionary statements</u>		
General	:	Not applicable.
Prevention	:	P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P235 - Keep cool. P271 - Use only outdoors or in a well-ventilated area. P273 - Avoid release to the environment.
Response	:	P391 - Collect spillage.
Storage	:	P403 - Store in a well-ventilated place.
Disposal	:	P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
Hazardous ingredients	:	hydrocarbons, C9-C10, n-/ iso-/ cyclo-alkanes, < 2% aromatics and hydrocarbons, C9-C11, n-/ iso-/ cyclo-alkanes, < 2% aromatics
Supplemental label elements	:	Not applicable. Warning! Hazardous respirable droplets may be formed when sprayed. Do not breathe spray or mist.
Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles	:	Not applicable.
<u>Special packaging requirements</u>		
Containers to be fitted with child-resistant fastenings	:	Not applicable.
Tactile warning of danger	:	Not applicable.

2.3 Other hazards

Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII	:	This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
Other hazards which do not result in classification	:	None known.

SECTION 3: Composition/information on ingredients

3.2 Mixtures	:	Mixture
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SECTION 3: Composition/information on ingredients

Product/ingredient name	Identifiers	%	Classification	Type
			Regulation (EC) No. 1272/2008 [CLP]	
hydrocarbons, C9-C10, n-/ iso-/ cyclo-alkanes, < 2% aromatics	REACH #: 01-2119471843-32 EC: 927-241-2 Index: 649-327-00-6	≥10 - ≤25	Flam. Liq. 3, H226 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Chronic 3, H412 EUH066	[1] [2]
hydrocarbons, C9-C11, n-/ iso-/ cyclo-alkanes, < 2% aromatics	REACH #: 01-2119463258-33 EC: 919-857-5 CAS: 64742-48-9 Index: 649-327-00-6	≥10 - ≤25	Flam. Liq. 3, H226 STOT SE 3, H336 Asp. Tox. 1, H304 EUH066	[1] [2]
titanium dioxide	REACH #: 01-2119489379-17 EC: 236-675-5 CAS: 13463-67-7 REACH #:	≥10 - ≤25	Carc. 2, H351	[1] [2]
hydrocarbons, isoalkanes, C7-C9	REACH #: 01-2119471305-42 EC: 921-728-3 CAS: 64741-66-8	≤5	Flam. Liq. 2, H225 Skin Irrit. 2, H315 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Chronic 2, H411	[1]
trizinc bis (orthophosphate)	REACH #: 01-2119485044-40 EC: 231-944-3 CAS: 7779-90-0 Index: 030-011-00-6	≤5	Aquatic Acute 1, H400 (M=1) Aquatic Chronic 1, H410 (M=1)	[1]
1-methoxy-2-propanol	REACH #: 01-2119457435-35 EC: 203-539-1 CAS: 107-98-2 Index: 603-064-00-3	≤3	Flam. Liq. 3, H226 STOT SE 3, H336	[1] [2]
zinc oxide	REACH #: 01-2119463881-32 EC: 215-222-5 CAS: 1314-13-2 Index: 030-013-00-7	≤1	Aquatic Acute 1, H400 (M=1) Aquatic Chronic 1, H410 (M=1)	[1]
			See Section 16 for the full text of the H statements declared above.	

Notes

The classification as a carcinogen by inhalation applies only to mixtures in powder form containing 1 % or more of titanium dioxide which is in the form of or incorporated in particles with aerodynamic diameter ≤ 10 µm.

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

[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 disclosure due to company policy

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. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. |

4.2 Most important symptoms and effects, both acute and delayed

There are no data available on the mixture itself. The mixture has been assessed following the conventional method of the CLP Regulation (EC) No 1272/2008 and is classified for toxicological properties accordingly. 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.

Ingestion may cause nausea, diarrhea and vomiting.

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.

Over-exposure signs/symptoms

- | | |
|---------------------|---|
| Eye contact | : No specific data. |
| Inhalation | : Adverse symptoms may include the following:
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness |
| Skin contact | : Adverse symptoms may include the following:
irritation
dryness
cracking |
| Ingestion | : No specific data. |

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, CO₂, powders, water spray.
- Unsuitable extinguishing media** : Do not use water jet.

5.2 Special hazards arising from the substance or mixture

- Hazards from the substance or mixture** : Flammable liquid and vapour. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. The vapour/gas is heavier than air and will spread along the ground. Vapours may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. This material is toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
- Hazardous thermal decomposition products** : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
phosphorus oxides
metal oxide/oxides

5.3 Advice for firefighters

- Special protective actions for fire-fighters** : 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 from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
- 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) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.
- Additional information** : No unusual hazard if involved in a fire.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- 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

- : Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage.

6.3 Methods and material for containment and cleaning up

SECTION 6: Accidental release measures

- Small spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. 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. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product.
- 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.

- 7.1 Precautions for safe handling** : 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. Mixture may charge electrostatically: always use earthing leads when transferring from one container to another. Operators should wear antistatic footwear and clothing and floors should be of the conducting type. 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. Do not allow to enter drains or watercourses.
- Information on fire and explosion protection**
Vapours are heavier than air and may spread along floors. Vapours may form explosive mixtures with air.
- When operators, whether spraying or not, have to work inside the spray booth, ventilation is unlikely to be sufficient to control particulates and solvent vapour in all cases. In such circumstances they should wear a compressed air-fed respirator during the spraying process and until such time as the particulates and solvent vapour concentration has fallen below the exposure limits.

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. Do not store above the following temperature: 35°C (95°F). Store in a dry, cool and well-ventilated area. Keep away from heat and direct sunlight. 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

SECTION 7: Handling and storage

leakage.

Seveso Directive - Reporting thresholds (in tonnes)**Danger criteria**

Category	Notification and MAPP threshold	Safety report threshold
P5c E2	5000 tonne 200 tonne	50000 tonne 500 tonne

7.3 Specific end use(s)**Recommendations** : Not available.**Industrial sector specific solutions** : Not available.**SECTION 8: Exposure controls/personal protection**

The information in this section contains generic advice and guidance. Information is provided based on typical anticipated uses of the product. Additional measures might be required for bulk handling or other uses that could significantly increase worker exposure or environmental releases.

8.1 Control parameters**Occupational exposure limits**

Product/ingredient name	Exposure limit values
hydrocarbons, C9-C10, n-/ iso-/ cyclo-alkanes, < 2% aromatics	EH40/2005 WELs (United Kingdom (UK), 8/2007). STEL: 850 mg/m ³ , (as turpentine ***TO BE TRANSLATED***) 15 minutes. Form: Vapour TWA: 566 mg/m ³ , (as turpentine (100 ppm)) 8 hours. Form: Vapour
hydrocarbons, C9-C11, n-/ iso-/ cyclo-alkanes, < 2% aromatics	EH40/2005 WELs (United Kingdom (UK), 8/2007). STEL: 850 mg/m ³ , (as turpentine (150 ppm)) 15 minutes. Form: Vapour TWA: 566 mg/m ³ , (as turpentine (100 ppm)) 8 hours. Form: Vapour
titanium dioxide	EH40/2005 WELs (United Kingdom (UK), 8/2018). TWA: 10 mg/m ³ 8 hours. Form: inhalable dust TWA: 4 mg/m ³ 8 hours. Form: respirable dust
1-methoxy-2-propanol	EH40/2005 WELs (United Kingdom (UK), 8/2018). Absorbed through skin. STEL: 560 mg/m ³ 15 minutes. STEL: 150 ppm 15 minutes. TWA: 375 mg/m ³ 8 hours. TWA: 100 ppm 8 hours.

Recommended monitoring procedures : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. 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.

DNELs/DMELs

SECTION 8: Exposure controls/personal protection

Product/ingredient name	Type	Exposure	Value	Population	Effects
hydrocarbons, C9-C10, n-/iso-/cyclo-alkanes, < 2% aromatics	DNEL	Long term Dermal	300 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	1500 mg/m ³	Workers	Systemic
	DNEL	Long term Oral	300 mg/kg bw/day	General population [Consumers]	Systemic
	DNEL	Long term Inhalation	900 mg/m ³	General population [Consumers]	Systemic
	DNEL	Long term Dermal	300 mg/kg bw/day	General population [Consumers]	Systemic
hydrocarbons, C9-C11, n-/iso-/cyclo-alkanes, < 2% aromatics	DNEL	Long term Dermal	208 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	871 mg/m ³	Workers	Systemic
	DNEL	Long term Oral	125 mg/kg bw/day	General population [Consumers]	Systemic
	DNEL	Long term Inhalation	185 mg/m ³	General population [Consumers]	Systemic
	DNEL	Long term Dermal	125 mg/kg bw/day	General population [Consumers]	Systemic
titanium dioxide	DNEL	Long term Inhalation	10 mg/m ³	Workers	Local
	DNEL	Long term Oral	700 mg/kg bw/day	General population [Consumers]	Systemic
hydrocarbons, isoalkanes, C7-C9	DNEL	Long term Dermal	773 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	2035 mg/m ³	Workers	Systemic
	DNEL	Long term Dermal	699 mg/kg bw/day	General population [Consumers]	Systemic
	DNEL	Long term Inhalation	608 mg/m ³	General population [Consumers]	Systemic
	DNEL	Long term Oral	699 mg/kg bw/day	General population [Consumers]	Systemic
trizinc bis(orthophosphate)	DNEL	Long term Inhalation	5 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	2,5 mg/m ³	General population [Consumers]	Systemic
	DNEL	Long term Dermal	83 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Dermal	83 mg/kg bw/day	General population [Consumers]	Systemic
	DNEL	Long term Oral	0,83 mg/kg bw/day	General population [Consumers]	Systemic
1-methoxy-2-propanol	DNEL	Short term Inhalation	553,5 mg/m ³	Workers	Local
	DNEL	Long term Inhalation	369 mg/m ³	Workers	Systemic

SECTION 8: Exposure controls/personal protection

zinc oxide	DNEL	Long term Dermal	50,6 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	43,9 mg/m ³	General population [Consumers]	Systemic
	DNEL	Long term Dermal	18,1 mg/kg bw/day	General population [Consumers]	Systemic
	DNEL	Long term Oral	3,3 mg/kg bw/day	General population [Consumers]	Systemic
	DNEL	Long term Inhalation	5 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	2,5 mg/m ³	General population [Consumers]	Systemic
	DNEL	Long term Dermal	83 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Dermal	83 mg/kg bw/day	General population [Consumers]	Systemic
	DNEL	Long term Oral	0,83 mg/kg bw/day	General population [Consumers]	Systemic

PNECs

Product/ingredient name	Compartment Detail	Value	Method Detail
titanium dioxide	Fresh water	0,127 mg/l	-
	Marine	>1 mg/l	-
	Sewage Treatment Plant	>100 mg/l	-
	Fresh water sediment	>1000 mg/kg	-
	Marine water sediment	>100 mg/kg	-
	Soil	100 mg/kg	-
trizinc bis(orthophosphate)	Fresh water	48,1 µg/l	-
	Marine	14,2 µg/l	-
	Fresh water sediment	550,2 mg/kg	-
	Marine water sediment	263,9 mg/kg	-
	Soil	249,4 mg/kg	-
	Sewage Treatment Plant	121,4 µg/l	-
1-methoxy-2-propanol	Fresh water	10 mg/l	-
	Fresh water sediment	41,6 mg/l	-
	Marine water sediment	4,17 mg/l	-
	Soil	2,47 mg/l	-
	Sewage Treatment Plant	100 mg/l	-
	Fresh water	25,6 µg/l	-
zinc oxide	Marine	7,6 µg/l	-
	Sewage Treatment Plant	64,7 µg/l	-
	Fresh water sediment	146 mg/kg dwt	-
	Marine water sediment	70,3 mg/kg dwt	-
	Soil	44,3 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.

SECTION 8: Exposure controls/personal protection

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** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields. Recommended: safety glasses with side-shields. (EN 166)

Skin protection

Hand protection

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.

- Gloves** : For prolonged or repeated handling, use the following type of gloves:

Recommended: > 8 hours (breakthrough time): nitrile rubber (0.5mm)

The recommendation for the type or types of glove to use when handling this product is based on information from the following source:

EN 374

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** : 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. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves. Refer to European Standard EN 1149 for further information on material and design requirements and test methods. Recommended: Wear overalls or long sleeved shirt. (EN 1149-1)

- 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** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use. Recommended: organic vapour filter (Type A) (EN 140)

- 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, fume scrubbers, filters or engineering modifications to the process equipment will be necessary 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.
Colour	: Various
Odour	: Hydrocarbon. [Slight]
Odour threshold	: Not available.
pH	: Not available.
Melting point/freezing point	: -20°C
Initial boiling point and boiling range	: >160°C
Flash point	: Closed cup: 40°C [ISO EN DIN 1523 / DIN 53213-1]
Evaporation rate	: 0,2 (butyl acetate = 1)
Flammability (solid, gas)	: Flammable in the presence of the following materials or conditions: open flames, sparks and static discharge, heat and shocks and mechanical impacts. Vapour may travel a considerable distance to source of ignition and flash back.
Upper/lower flammability or explosive limits	: Lower: 0,6% Upper: 8%
Vapour pressure	: 0,7 kPa [room temperature]
Vapour density	: >1 [Air = 1]
Relative density	: 1,21 to 1,25
Solubility(ies)	: Partially soluble in the following materials: acetone. Insoluble in the following materials: cold water and hot water.
Partition coefficient: n-octanol/ water	: Not available.
Auto-ignition temperature	: 250°C
Decomposition temperature	: Not available.
Viscosity	: Dynamic (room temperature): 700 to 850 mPa·s Kinematic (40°C): >0,205 cm²/s
Explosive properties	: Non-explosive in the presence of the following materials or conditions: open flames, sparks and static discharge, heat and shocks and mechanical impacts.
Oxidising properties	: Not available.

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	: 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.

SECTION 10: Stability and reactivity

10.6 Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.
If involved in a fire, toxic gases including CO, CO₂ and smoke can be generated.

SECTION 11: Toxicological information**11.1 Information on toxicological effects****Acute toxicity**

Product/ingredient name	Result	Species	Dose	Exposure
hydrocarbons, C9-C10, n-/iso-/ cyclo-alkanes, < 2% aromatics	LC50 Inhalation Vapour	Rat	8500 mg/m ³	4 hours
	LC50 Inhalation Vapour	Rat	>5000 mg/m ³	4 hours
	LD50 Dermal	Rabbit	>5000 mg/kg	-
	LD50 Oral	Rat	>6 g/kg	-
titanium dioxide	LD50 Oral	Rat	>15000 mg/kg	-
	LC50 Inhalation Dusts and mists	Rat	>6,82 mg/l	4 hours
	LD50 Dermal	Rabbit	>10 g/kg	-
	LD50 Oral	Rat	>24 g/kg	-
hydrocarbons, isoalkanes, C7-C9	LC50 Inhalation Vapour	Rat	>21 mg/l	4 hours
	LD50 Dermal	Rabbit	>2000 mg/kg	-
trizinc bis(orthophosphate)	LD50 Oral	Rat	>5000 mg/kg	-
	LC50 Inhalation Dusts and mists	Rat	>5,7 mg/l	4 hours
1-methoxy-2-propanol	LD50 Oral	Rat	>5000 mg/kg	-
	LC50 Inhalation Vapour	Rat	30,02 mg/l 13	4 hours
	LD50 Dermal	Rabbit	g/kg 11700	-
	LD50 Oral	Mouse	mg/kg 4016	-
zinc oxide	LD50 Oral	Rat - Male, Female	mg/kg	-
	LC50 Inhalation Dusts and mists	Mouse	2500 mg/m ³	4 hours
	LC50 Inhalation Dusts and mists	Rat	>5700 mg/m ³	4 hours
	LD50 Oral	Rat	>15 g/kg	-

Conclusion/Summary : Based on available data, the classification criteria are not met.

Acute toxicity estimates

Not available.

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
hydrocarbons, C9-C10, n-/iso-/ cyclo-alkanes, < 2% aromatics	Skin - Oedema	Rabbit	1	-	-
	Eyes - Cornea opacity	Rabbit	0	-	-
hydrocarbons, isoalkanes, C7-C9	Skin - Erythema/Eschar	Rabbit	1	-	-
	Eyes - Redness of the conjunctivae	Rabbit	1	-	-
zinc oxide	Eyes - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-

Conclusion/Summary

Skin : Based on available data, the classification criteria are not met.

SECTION 11: Toxicological information**Eyes** : Based on available data, the classification criteria are not**Respiratory** met. : May cause drowsiness or dizziness.**Sensitisation**

Product/ingredient name	Route of exposure	Species	Result
hydrocarbons, C9-C10, n-/ iso-/ cyclo-alkanes, < 2% aromatics	skin	Rabbit	Not sensitizing
hydrocarbons, C9-C11, n-/ iso-/ cyclo-alkanes, < 2% aromatics	skin	Rabbit	Not sensitizing
titanium dioxide	skin	Guinea pig	Not sensitizing
hydrocarbons, isoalkanes, C7-C9	Respiratory	Rat	Not sensitizing

Conclusion/Summary**Skin** : Based on available data, the classification criteria are not**Respiratory** met. : Based on available data, the classification criteria are not**Mutagenicity** met.

Product/ingredient name	Test	Experiment	Result
hydrocarbons, C9-C10, n-/ iso-/ cyclo-alkanes, < 2% aromatics	OECD 473, 474, 476	Subject: Mammalian-Animal	Negative
hydrocarbons, isoalkanes, C7-C9	OECD 471	Subject: Bacteria	Negative

Conclusion/Summary : Based on available data, the classification criteria are not met.**Carcinogenicity**

Product/ingredient name	Result	Species	Dose	Exposure
hydrocarbons, C9-C10, n-/ iso-/ cyclo-alkanes, < 2% aromatics	Negative - Oral - TD	Rat	-	-

Conclusion/Summary : Based on available data, the classification criteria are not met.**Reproductive toxicity**

Product/ingredient name	Maternal toxicity	Fertility	Developmental toxin	Species	Dose	Exposure
hydrocarbons, C9-C10, n-/ iso-/ cyclo-alkanes, < 2% aromatics	-	-	Negative	Rat - Female	Oral	-
hydrocarbons, isoalkanes, C7-C9	Negative	Negative	Negative	Rat	Oral	-

Conclusion/Summary : Based on available data, the classification criteria are not met.**Teratogenicity****Conclusion/Summary** : Based on available data, the classification criteria are not met.**Specific target organ toxicity (single exposure)**

Product/ingredient name	Category	Route of exposure	Target organs
hydrocarbons, C9-C10, n-/ iso-/ cyclo-alkanes, < 2% aromatics	Category 3	-	Narcotic effects
hydrocarbons, C9-C11, n-/ iso-/ cyclo-alkanes, < 2% aromatics	Category 3	-	Narcotic effects
hydrocarbons, isoalkanes, C7-C9	Category 3	-	Narcotic effects
1-methoxy-2-propanol	Category 3	-	Narcotic effects

Specific target organ toxicity (repeated exposure)

SECTION 11: Toxicological information

Not available.

Aspiration hazard

Product/ingredient name	Result
hydrocarbons, C9-C10, n-/ iso-/ cyclo-alkanes, < 2% aromatics	ASPIRATION HAZARD - Category 1
hydrocarbons, C9-C11, n-/ iso-/ cyclo-alkanes, < 2% aromatics	ASPIRATION HAZARD - Category 1
hydrocarbons, isoalkanes, C7-C9	ASPIRATION HAZARD - Category 1

Delayed and immediate effects as well as chronic effects from short and long-term exposure**Short term exposure**

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

Conclusion/Summary : Based on available data, the classification criteria are not met.

General : No known significant effects or critical

Carcinogenicity hazards. : No known significant effects or critical

Mutagenicity hazards. : No known significant effects or critical

Teratogenicity hazards. : No known significant effects or critical

Developmental effects hazards. : No known significant effects or critical

Fertility effects hazards. : No known significant effects or critical
hazards.

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.

The mixture has been assessed following the summation method of the CLP Regulation (EC) No 1272/2008 and is classified for eco-toxicological properties accordingly. See Sections 2 and 3 for details.

Product/ingredient name	Result	Species	Exposure
hydrocarbons, C9-C10, n-/iso-/ cyclo-alkanes, < 2% aromatics	Acute EC50 >1000 mg/l	Algae - Pseudokirchneriella subcapitata	72 hours
	Acute EC50 22 to 46 mg/l	Daphnia spec.	48 hours
	Acute LC50 10 to 30 mg/l	Fish	96 hours
	Acute NOEC <1 mg/l	Algae - Pseudokirchneriella subcapitata	72 hours
		Algae - Pseudokirchneriella subcapitata	72 hours
hydrocarbons, C9-C11, n-/iso-/ cyclo-alkanes, < 2% aromatics	Acute NOEC 100 mg/l		
titanium dioxide	Chronic NOEC 0,23 mg/l	Daphnia spec.	-
	Chronic NOEC 0,131 mg/l	Fish	-
	Acute LC50 3 mg/l Fresh water	Crustaceans - Ceriodaphnia dubia - Neonate	48 hours
	Acute LC50 6,5 mg/l Fresh water	Daphnia spec. - Daphnia pulex - Neonate	48 hours
	Acute LC50 >1000000 µg/l Marine	Fish - Fundulus heteroclitus	96 hours

SECTION 12: Ecological information

hydrocarbons, isoalkanes, C7-C9	water Acute EC50 29 mg/l Acute EC50 2,4 mg/l Acute LC50 18,4 mg/l Acute NOEC 6,3 mg/l	Algae - pseudokirchneriella subcapitata Daphnia spec. Fish Algae - pseudokirchneriella subcapitata Daphnia spec. Daphnia spec. - ceriodaphnia dubia Algae - selenastrum capricornutum Algae - Selenastrum capricornutum Daphnia spec. Fish Algae Algae Daphnia spec. Daphnia spec. - Daphnia magna - Neonate Algae - Pseudokirchneriella subcapitata - Exponential growth phase Daphnia spec. - Daphnia magna - Neonate Fish Algae Daphnia spec. Daphnia spec. Fish	72 hours 48 hours 96 hours 72 hours 21 days 48 hours 72 hours 7 days 96 hours 96 hours 72 hours 72 hours 48 hours 48 hours 72 hours 48 hours 96 hours 7 days 21 days 7 days 30 days
trizinc bis(orthophosphate)	Chronic NOEC 0,17 mg/l Acute EC50 5,7 mg/l Acute IC50 1,87 mg/l		
1-methoxy-2-propanol	Acute EC50 >1000 mg/l		
zinc oxide	Acute EC50 23300 mg/l Acute LC50 6812 mg/l Fresh water Acute EC50 0,024 mg/l Acute EC50 0,137 mg/l Acute EC50 0,413 mg/l Acute EC50 0,481 mg/l Fresh water Acute IC50 46 µg/l Fresh water Acute LC50 98 µg/l Fresh water Acute LC50 0,33 to 0,78 mg/l Chronic NOEC 0,019 mg/l Chronic NOEC 0,037 mg/l Chronic NOEC 0,082 mg/l Chronic NOEC 0,199 mg/l		

Conclusion/Summary : Toxic to aquatic life with long lasting effects.

12.2 Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
hydrocarbons, C9-C10, n-/iso-/ cyclo-alkanes, < 2% aromatics	-	89 % - Readily - 28 days	-	-
hydrocarbons, C9-C11, n-/iso-/ cyclo-alkanes, < 2% aromatics	OECD 301B	>80 % - Readily - 28 days	-	-
	OECD 301F	>80 % - Readily - 28 days	-	-
hydrocarbons, isoalkanes, C7-C9	-	22 % - 28 days	-	-
1-methoxy-2-propanol	OECD 301E	96 % - Readily - 28 days	-	-
	-	>90 % - Readily - 5 days	1,95 gO ₂ /g ThOD	-
	OECD 301C	88 to 92 % - Readily - 28 days	-	-

Conclusion/Summary : This product has not been tested for biodegradation. Based on available data, the classification criteria are not met.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
hydrocarbons, C9-C10, n-/iso-/ cyclo-alkanes, < 2% aromatics	Fresh water <28 days, 5 to 25°C	-	Readily
hydrocarbons, C9-C11, n-/iso-/ cyclo-alkanes, < 2% aromatics	-	100%; < 28 day(s)	Readily
titanium dioxide	-	-	Not readily
hydrocarbons, isoalkanes,	-	-	Inherent

SECTION 12: Ecological information

C7-C9 1-methoxy-2-propanol	Fresh water <28 days, 5 to 25°C	-	Readily
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12.3 Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
hydrocarbons, C9-C10, n-/iso-/ cyclo-alkanes, < 2% aromatics	3.9 to 4.9	-	high
hydrocarbons, C9-C11, n-/iso-/ cyclo-alkanes, < 2% aromatics	5 to 6.5	-	high
hydrocarbons, isoalkanes, C7-C9	4.3 to 5.1	10 to 2500	high
trizinc bis(orthophosphate)	-	60960	high
1-methoxy-2-propanol zinc oxide	<1	<100	low
	-	177	low

12.4 Mobility in soil

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

Mobility : Volatile.

12.5 Results of PBT and vPvB assessment

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

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

SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance.

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.

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.

European waste catalogue (EWC)

The European Waste Catalogue classification of this product, when disposed of as waste, is:









Waste code	Waste designation
08 01 11*	waste paint and varnish containing organic solvents or other hazardous substances

Packaging

SECTION 13: Disposal considerations

- 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.
- 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. Vapour from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

	ADR/RID	ADN	IMDG	IATA
14.1 UN number	UN1263	UN1263	UN1263	UN1263
14.2 UN proper shipping name	Paint.	Paint.	Paint. [trizinc bis (orthophosphate)]	Paint.
14.3 Transport hazard class(es)	3  	3  	3  	3  
14.4 Packing group	III	III	III	III
14.5 Environmental hazards	Yes.	Yes.	Yes.	Yes.
Additional information	Remarks: This class 3 viscous liquid that is also environmentally hazardous is not subject to regulation in packagings up to 5 L, 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 according to 2.2.3.1.5.2. ADR Tunnel code: (D/E)	-	Emergency schedules (EmS): F-E + S-E Viscous substance exemption This class 3 viscous liquid that is also environmentally hazardous is not subject to regulation in packagings up to 5 L, 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 according to 2.3.2.5.	Passenger and Cargo Aircraft Quantity limitation: 60 L Packaging instructions: 355 Cargo Aircraft Only Quantity limitation: 220 L Packaging instructions: 366 Limited Quantities - Passenger Aircraft Quantity limitation: 10 L Packaging instructions: Y 344

- 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.

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.

Substances of very high concern

None of the components are listed.

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

Other EU regulations

VOC : The provisions of Directive 2004/42/EC on VOC apply to this product. Refer to the product label and/or technical data sheet for further information.

VOC for Ready-for-Use Mixture : 2004/42/EC - IIA/i: 500g/l (2010). <= 497g/l VOC.

Europe inventory : All components are listed or exempted.

Product/ingredient name	Carcinogenic effects	Mutagenic effects	Developmental effects	Fertility effects
titanium dioxide	Not supported	Not supported	Not supported	Not supported

Ozone depleting substances (1005/2009/EU)

Not listed.

Prior Informed Consent (PIC) (649/2012/EU)

Not listed.

Seveso Directive

This product is controlled under the Seveso Directive.

Danger criteria

Category
P5c E2

National regulations

Industrial use : 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.

References : EH40/2005 Workplace exposure limits
Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Regulation (EU) No. 2016/918

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

SECTION 15: Regulatory information

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

CN code : 3208 10 90

International lists

National inventory

Australia	: At least one component is not
Canada	listed. : At least one component is not
China	listed. : At least one component is not
Japan	listed. : At least one component is not listed.
	Japan inventory (ENCS) : At least one component is not listed.
	Japan inventory (ISHL) : At least one component is not
Malaysia	listed. : Not determined
New Zealand	: At least one component is not listed.
Philippines	: Not determined.
Republic of Korea	: At least one component is not listed.
Taiwan	: At least one component is not listed.
Turkey	: Not
United States	determined. : Not
Thailand	determined. : Not
Viet Nam	determined. : Not

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

Contains TiO2 : Yes

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

Classification	Justification
Flam. Liq. 3, H226 STOT SE 3, H336 Aquatic Chronic 2, H411	On basis of test data Calculation method Calculation method

Full text of H-phrases referred to in sections 2 and 3

SECTION 16: Other information

Full text of abbreviated H statements	:	H225 H226 H304 H315 H336 H351 H400 H410 H411 H412 EUH066	Highly flammable liquid and vapour. Flammable liquid and vapour. May be fatal if swallowed and enters airways. Causes skin irritation. May cause drowsiness or dizziness. Suspected of causing cancer. Very toxic to aquatic life. Very toxic to aquatic life with long lasting effects. Toxic to aquatic life with long lasting effects. Harmful to aquatic life with long lasting effects. Repeated exposure may cause skin dryness or cracking.
	:	Aquatic Acute 1 Aquatic Chronic 1 Aquatic Chronic 2 Aquatic Chronic 3 Asp. Tox. 1 Carc. 2 Flam. Liq. 2 Flam. Liq. 3 Skin Irrit. 2 STOT SE 3	SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 1 LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 1 LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2 LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3 ASPIRATION HAZARD - Category 1 CARCINOGENICITY - Category 2 FLAMMABLE LIQUIDS - Category 2 FLAMMABLE LIQUIDS - Category 3 SKIN CORROSION/IRRITATION - Category 2 SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 3

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Notice to reader

The information in this Safety Data Sheet is based on the present state of knowledge and current legislation. It provides guidance on health, safety and environmental aspects of the product and should not be construed as any guarantee of technical performance or suitability for particular applications. The product should not be used for purposes other than those shown in Section 1 without first referring to the supplier and obtaining written handling instructions. As the specific conditions of use of the product are outside the supplier's control, the user is responsible for ensuring that the requirements of relevant legislation are complied with. 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.