SAFETY DATA SHEET

Date of issue/Date of revision : 24 December 2024 Version : 4.01



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

1.1 Product identifier

Product name : HI-TEMP 1027 HD HARDENER

Product code : 00452506

Other means of identification

Not available.

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

Product use : Professional applications, Used by spraying.

Use of the substance/

mixture

: Coating.

Uses advised against : Product is not intended, labelled or packaged for consumer use.

1.3 Details of the supplier of the safety data sheet

PPG Coatings Belgium BV/SRL Tweemontstraat 104 B-2100 Deurne Belgium Telephone +32-33606311 Fax +32-33606435

e-mail address of person responsible for this SDS

: Product.Stewardship.EMEA@ppg.com

1.4 Emergency telephone number

National advisory body/Poison Centre

Numéro de téléphone d'appel d'urgence : 01 45 42 59 59 (Association ORFILA, organisme agréé prévu au 4ème alinéa de l'article L231-7 du code du travail)

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 Acute Tox. 4, H302 Eye Irrit. 2, H319 Repr. 1B, H360FD 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.

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SECTION 2: Hazards identification

2.2 Label elements

Hazard pictograms









Signal word : Danger

Hazard statements: Flammable liquid and vapour.

Harmful if swallowed.

Causes serious eye irritation.

May damage fertility. May damage the unborn child. Toxic to aquatic life with long lasting effects.

Precautionary statements

Prevention : Wear protective gloves, protective clothing and eye or face protection. Keep away from

heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Avoid

release to the environment.

Response : Collect spillage. IF exposed or concerned: Get medical advice or attention.

Storage : Not applicable.

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

international regulations.

P280, P210, P273, P391, P308 + P313, P501

Supplemental label

elements

articles

: Not applicable.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and : Restricted to professional users.

Special packaging requirements

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

: This mixture contains substances that are assessed to be a PBT or a vPvB, refer to

Section 3.2.

Other hazards which do not result in classification

: Prolonged or repeated contact may dry skin and cause irritation.

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SECTION 3: Composition/information on ingredients

3.2 Mixtures : Mixture

Product/ingredient name	Identifiers	% by weight	Classification	Specific Conc. Limits, M-factors and ATEs	Туре
arium diboron tetraoxide	REACH #: 01-2119983530-36 EC: 237-222-4 CAS: 13701-59-2 Index: 056-005-00-3	≥10 - ≤25	Acute Tox. 3, H301 Acute Tox. 4, H332 Repr. 1B, H360FD (oral)	ATE [Oral] = 100 mg/ kg ATE [Inhalation (dusts and mists)] = 1.5 mg/l	[1] [2]
trizinc bis(orthophosphate)	REACH #: 01-2119485044-40 EC: 231-944-3 CAS: 7779-90-0 Index: 030-011-00-6	≥10 - ≤17	Aquatic Acute 1, H400 Aquatic Chronic 1, H410	M [Acute] = 1 M [Chronic] = 1	[1]
Solvent naphtha (petroleum), heavy arom. Nota(s) P	REACH #: 01-2119451097-39 EC: 265-198-5 CAS: 64742-94-5 Index: 649-424-00-3	≥5.0 - ≤10	STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Chronic 2, H411 EUH066	-	[1]
xylene	REACH #: 01-2119488216-32 EC: 215-535-7 CAS: 1330-20-7	≥5.0 - ≤8.7	Flam. Liq. 3, H226 Acute Tox. 4, H312 Acute Tox. 4, H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335 Asp. Tox. 1, H304 Aquatic Chronic 3, H412	ATE [Dermal] = 1700 mg/kg ATE [Inhalation (vapours)] = 11 mg/l	[1] [2]
zinc oxide	REACH #: 01-2119463881-32 EC: 215-222-5 CAS: 1314-13-2 Index: 030-013-00-7	≥5.0 - ≤7.0	Aquatic Acute 1, H400 Aquatic Chronic 1, H410	M [Acute] = 1 M [Chronic] = 1	[1]
ethylbenzene	REACH #: 01-2119489370-35 EC: 202-849-4 CAS: 100-41-4 Index: 601-023-00-4	≥1.0 - ≤5.0	Flam. Liq. 2, H225 Acute Tox. 4, H332 STOT RE 2, H373 (hearing organs) Asp. Tox. 1, H304 Aquatic Chronic 3, H412	ATE [Inhalation (vapours)] = 17.8 mg/l	[1] [2]
butan-1-ol	REACH #: 01-2119484630-38 EC: 200-751-6 CAS: 71-36-3 Index: 603-004-00-6	≤1.2	Flam. Liq. 3, H226 Acute Tox. 4, H302 Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 3, H335 STOT SE 3, H336	ATE [Oral] = 790 mg/ kg	[1] [2]
2-ethylhexanoic acid, cerium salt	EC: 246-332-1 CAS: 24593-34-8 Index: 607-230-00-6	<0.30	Repr. 1B, H360D (oral) Aquatic Acute 1, H400 Aquatic Chronic 1, H410	M [Acute] = 1 M [Chronic] = 1	[1]
octamethylcyclotetrasiloxane	REACH #: 01-2119529238-36	≤0.017	Repr. 2, H361f Aquatic Chronic 1, H410	M [Chronic] = 10	[1] [3] [4]

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Code : 0045	2506	Date of issue/Date of revision	: 24 December 2024		
HI-TEMP 1027 HD HARDENER					
SECTION 3: Co	omposition/informati	on on ingredients			
	EC: 209-136-7 CAS: 556-67-2 Index: 014-018-00-1	See Section 16 for the full text of the H statements declared above.			

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

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

SUB codes represent substances without registered CAS Numbers.

SECTION 4: First aid measures

4.1 Description of first aid measures

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. Wash contaminated clothing thoroughly with water

before removing it, or wear gloves.

4.2 Most important symptoms and effects, both acute and delayed

Potential acute health effects

Eye contact : Causes serious eye irritation.

Inhalation : No known significant effects or critical hazards.

Skin contact: Defatting to the skin. May cause skin dryness and irritation.

Ingestion : Harmful if swallowed.

Over-exposure signs/symptoms

Eye contact: Adverse symptoms may include the following:

pain or irritation watering redness

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SECTION 4: First aid measures

Inhalation : Adverse symptoms may include the following:

reduced foetal weight increase in foetal deaths skeletal malformations

Skin contact: Adverse symptoms may include the following:

irritation dryness cracking

reduced foetal weight increase in foetal deaths skeletal malformations

Ingestion: Adverse symptoms may include the following:

reduced foetal weight increase in foetal deaths skeletal malformations

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.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing

media

: Use dry chemical, CO₂, water spray (fog) or foam.

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. 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 combustion products

: Decomposition products may include the following materials:

carbon oxides phosphorus oxides metal oxide/oxides Formaldehyde.

5.3 Advice for firefighters

Special precautions 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.

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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 nonemergency 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

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 noncombustible, 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. 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

Protective measures

: Put on appropriate personal protective equipment (see Section 8). Avoid exposure obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapour or mist. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.

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SECTION 7: Handling and storage

Advice on general occupational hygiene

: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities

: Store between the following temperatures: 0 to 35°C (32 to 95°F). Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidising materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

7.3 Specific end use(s)

See Section 1.2 for Identified uses.

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
barium diboron tetraoxide	Ministry of Labor (France, 9/2023) [baryum (composés solubles)]
	TWA 8 hours: 0.5 mg/m³ (as Ba).
xylene	Ministry of Labor (France, 9/2023) [xylènes, isomères mixtes,
	purs] Absorbed through skin.
	STEL 15 minutes: 442 mg/m³.
	STEL 15 minutes: 100 ppm.
	TWA 8 hours: 221 mg/m³.
	TWA 8 hours: 50 ppm.
ethylbenzene	Ministry of Labor (France, 9/2023) Absorbed through skin.
	TWA 8 hours: 20 ppm.
	TWA 8 hours: 88.4 mg/m³.
	STEL 15 minutes: 442 mg/m³.
	STEL 15 minutes: 100 ppm.
butan-1-ol	Ministry of Labor (France, 9/2023)
	STEL 15 minutes: 50 ppm.
	STEL 15 minutes: 150 mg/m³.

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.

DNELs

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SECTION 8: Exposure controls/personal protection

Droduct/ingredient neme	Turno	Evnooure	Value	Denulation	Effects
Product/ingredient name	Туре	Exposure	Value	Population	Effects
barium diboron tetraoxide	DNEL	Long term Oral	0.4 mg/kg bw/day	General population	Systemic
	DNEL	Short term Oral	0.5 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	0.6 mg/m ³	General population	Systemic
	DNEL	Short term Inhalation	0.9 mg/m ³	General population	Systemic
	DNEL DNEL	Long term Inhalation	2.5 mg/m ³	Workers	Systemic
	DNEL	Long term Dermal Short term Inhalation	3.5 mg/kg bw/day 3.5 mg/m³	General population Workers	Systemic Systemic
	DNEL	Short term Dermal	5 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	7 mg/kg bw/day	Workers	Systemic
	DNEL	Short term Dermal	10 mg/kg bw/day	Workers	Systemic
Solvent naphtha (petroleum),	DNEL	Long term Oral	0.03 mg/kg bw/day	General population	Systemic
heavy arom. Nota(s) P	DNEL	Long term Dermal	0.28 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	0.69 mg/m ³	General population	Local
	DNEL	Long term Inhalation	0.69 mg/m ³	General population	Systemic
	DNEL	Long term Dermal	0.95 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	2.31 mg/m ³	Workers	Local
	DNEL	Long term Inhalation	2.31 mg/m³	Workers	Systemic
	DNEL	Short term Oral	25.6 mg/kg bw/day	General population	Systemic
	DNEL	Short term Inhalation	143.5 mg/m³	General population	Local
	DNEL	Short term Inhalation	160.23 mg/m³	Workers	Local
	DNEL	Short term Inhalation	226 mg/m ³	General population	Systemic
	DNEL	Short term Inhalation	384 mg/m³	Workers	Systemic
xylene	DNEL	Long term Oral	5 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	65.3 mg/m³	General population	Local
	DNEL	Long term Inhalation	65.3 mg/m³	General population	Systemic
	DNEL	Long term Dermal	125 mg/kg bw/day	General population	Systemic
	DNEL DNEL	Long term Dermal	212 mg/kg bw/day	Workers Workers	Systemic
	DNEL	Long term Inhalation Long term Inhalation	221 mg/m³ 221 mg/m³	Workers	Local Systemic
	DNEL	Short term Inhalation	260 mg/m³	General population	Local
	DNEL	Short term Inhalation	260 mg/m³	General population	Systemic
	DNEL	Short term Inhalation	442 mg/m³	Workers	Local
	DNEL	Short term Inhalation	442 mg/m³	Workers	Systemic
ethylbenzene	DMEL	Long term Inhalation	442 mg/m³	Workers	Local
	DMEL	Short term Inhalation	884 mg/m³	Workers	Systemic
	DNEL	Long term Oral	1.6 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	15 mg/m³	General population	•
	DNEL	Long term Inhalation	77 mg/m³	Workers	Systemic
	DNEL	Long term Dermal	180 mg/kg bw/day	Workers	Systemic
hutan 4 al	DNEL	Short term Inhalation	293 mg/m³	Workers	Local
butan-1-ol	DNEL	Long term Oral	1.5625 mg/kg bw/day		Systemic
	DNEL	Long term Dermal	3.125 mg/kg bw/day	General population	Systemic
	DNEL DNEL	Long term Inhalation Long term Inhalation	55.357 mg/m³ 155 mg/m³	General population General population	Systemic Local
	DNEL	Long term Inhalation	310 mg/m ³	Workers	Local
2-ethylhexanoic acid, cerium salt	DNEL	Long term Oral	0.167 mg/kg bw/day	General population	
	DNEL	Long term Dermal	0.167 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	0.333 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	0.58 mg/m³	General population	Systemic
	DNEL	Long term Inhalation	2.351 mg/m ³	Workers	Systemic
octamethylcyclotetrasiloxane	DNEL	Long term Oral	3.7 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	13 mg/m³	General population	Local
	DNEL	Long term Inhalation	13 mg/m³	General population	Systemic
	DNEL	Long term Inhalation	73 mg/m³	Workers	Local

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SECTION 8: Exposure controls/personal protection

DNEL Long term Inhalation 73 mg/m³ Workers Systemic

PNECs

Product/ingredient name	Type	Compartment Detail	Value	Method Detail
trizinc bis(orthophosphate)	-	Fresh water	20.6 μg/l	Sensitivity Distribution
, , ,	-	Marine water	6.1 µg/l	Sensitivity Distribution
	-	Sewage Treatment Plant	100 μg/l	Assessment Factors
	-	Fresh water sediment	117.8 mg/kg dwt	Sensitivity Distribution
	-	Marine water sediment	56.5 mg/kg dwt	Equilibrium Partitioning
	-	Soil	35.6 mg/kg dwt	Sensitivity Distribution
xylene	-	Fresh water	0.327 mg/l	-
-	-	Marine water	0.327 mg/l	-
	-	Sewage Treatment Plant	6.58 mg/l	-
	-	Fresh water sediment	12.46 mg/kg dwt	-
	-	Marine water sediment	12.46 mg/kg dwt	-
	-	Soil	2.31 mg/kg	-
zinc oxide	-	Fresh water	20.6 μg/l	Sensitivity Distribution
	-	Marine water	6.1 µg/l	Sensitivity Distribution
	-	Fresh water sediment	117 mg/kg dwt	Sensitivity Distribution
	-	Sewage Treatment Plant	52 μg/l	Assessment Factors
	-	Marine water sediment	56.5 mg/kg dwt	Assessment Factors
	-	Soil	35.6 mg/kg dwt	Sensitivity Distribution
ethylbenzene	-	Fresh water	0.1 mg/l	Assessment Factors
	-	Marine water	0.01 mg/l	Assessment Factors
	-	Sewage Treatment Plant	9.6 mg/l	Assessment Factors
	-	Fresh water sediment	13.7 mg/kg dwt	Equilibrium Partitioning
	-	Marine water sediment	1.37 mg/kg dwt	Equilibrium Partitioning
	-	Soil	2.68 mg/kg dwt	Equilibrium Partitioning
	-	Secondary Poisoning	20 mg/kg	-
butan-1-ol	-	Fresh water	0.082 mg/l	-
	-	Marine water	0.0082 mg/l	-
	-	Fresh water sediment	0.178 mg/kg	-
	-	Marine water sediment	0.0178 mg/kg	-
	-	Soil	0.015 mg/kg	-
	-	Sewage Treatment Plant	2476 mg/l	-

8.2 Exposure controls

Appropriate engineering controls

: Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapour or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

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

Skin protection

Hand protection

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: Chemical splash goggles. Use eye protection according to EN 166.

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SECTION 8: Exposure controls/personal protection

Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated. When prolonged or frequently repeated contact may occur, a glove with a protection class of 6 (breakthrough time greater than 480 minutes according to EN 374) is recommended. When only brief contact is expected, a glove with a protection class of 2 or higher (breakthrough time greater than 30 minutes according to EN 374) is recommended. 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.

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

May be used: nitrile rubber

Recommended: Chloroprene, butyl rubber, neoprene, polyvinyl alcohol (PVA), Viton®

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 antistatic 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.

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 : 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. If workers are exposed to concentrations above the exposure limit, they must use appropriate, certified respirators. Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Wear a respirator conforming to EN140. Filter type: organic vapour (Type A) and

particulate filter P3

Environmental exposure : Emission

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

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

Flammability

Physical state : Liquid.

Colour : Not available.

Odour : Characteristic.

Melting point/freezing point : Not determined.

Boiling point or initial boiling : >37.78°C

point and boiling range

: Not determined. There are no data available on the mixture itself.

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SECTION 9: Physical and chemical properties

Lower and upper explosion

limit

: Not available.

Flash point Closed cup: 24°C

Auto-ignition temperature

Ingredient name	°C	°F	Method
Solvent naphtha (petroleum), heavy arom. Nota(s) P	220 to 250	428 to 482	ASTM E 659

Decomposition temperature

pΗ

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

Not applicable. insoluble in water.

Viscosity : Dynamic (room temperature): Not available.

Kinematic (room temperature): Not available.

Kinematic (40°C): >21 mm²/s

Solubility

Media	Result
cold water	Not soluble

Partition coefficient n-octanol/ : Not applicable.

water (log Pow)

Vapour pressure

	Vapou	ır Pressu	re at 20°C	Vapou	ır pressı	ure at 50°C
Ingredient name	mm Hg	kPa	Method	mm Hg	kPa	Method
dimethyl carbonate	56.78	7.6	OECD 104			

1.66 Relative density

Particle characteristics

Median particle size : Not applicable.

9.2 Other information

9.2.1 Information with regard to physical hazard classes

: The product itself is not explosive, but the formation of an explosible mixture of **Explosive properties**

vapour or dust with air is possible.

: Product does not present an oxidizing hazard. **Oxidising properties**

No additional information.

SECTION 10: Stability and reactivity

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

10.2 Chemical stability : The product is stable.

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

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

Refer to protective measures listed in sections 7 and 8.

10.5 Incompatible materials : Keep away from the following materials to prevent strong exothermic reactions:

oxidising agents, strong alkalis, strong acids.

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SECTION 10: Stability and reactivity

10.6 Hazardous decomposition products

: Depending on conditions, decomposition products may include the following materials: carbon oxides phosphorus oxides Formaldehyde. metal oxide/oxides

SECTION 11: Toxicological information

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

The mixture has been assessed following the conventional method of the CLP Regulation (EC) No 1272/2008 and is classified for toxicological properties accordingly.

Harmful if swallowed.

Causes serious eye irritation.

May damage fertility.

May damage the unborn child.

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
barium diboron tetraoxide	LC50 Inhalation Dusts and	Rat	1.5 mg/l	4 hours
	mists			
	LD50 Dermal	Rabbit	>2000 mg/kg	-
	LD50 Oral	Rat	100 mg/kg	-
trizinc bis(orthophosphate)	LC50 Inhalation Dusts and	Rat	>5.7 mg/l	4 hours
	mists			
	LD50 Oral	Rat	>5000 mg/kg	-
Solvent naphtha (petroleum), heavy arom.	LC50 Inhalation Dusts and	Rat	>5.2 mg/l	4 hours
Nota(s) P	mists			
	LD50 Oral	Rat	>5 g/kg	-
xylene	LD50 Dermal	Rabbit	1.7 g/kg	-
	LD50 Oral	Rat	4.3 g/kg	-
zinc oxide	LC50 Inhalation Dusts and	Rat	>5700 mg/m ³	4 hours
	mists			
	LD50 Dermal	Rat	>2000 mg/kg	_
	LD50 Oral	Rat	>5000 mg/kg	_
ethylbenzene	LC50 Inhalation Vapour	Rat	17.8 mg/l	4 hours
	LD50 Dermal	Rabbit	17.8 g/kg	_
	LD50 Oral	Rat	3.5 g/kg	_
butan-1-ol	LC50 Inhalation Vapour	Rat	24000 mg/m ³	4 hours
	LD50 Dermal	Rabbit	3400 mg/kg	-
	LD50 Oral	Rat	790 mg/kg	_
octamethylcyclotetrasiloxane	LC50 Inhalation Vapour	Rat	36 g/m³	4 hours
- Colon and the	LD50 Dermal	Rat	>2375 mg/kg	_
	LD50 Oral	Rat	>4800 mg/kg	_
	LD00 Oldi	1 tut	- 4000 mg/kg	

Acute toxicity estimates

Route	ATE value		
Oral	579.81 mg/kg		
Dermal	22648.01 mg/kg		
Inhalation (vapours)	126.67 mg/l		
Inhalation (dusts and mists)	8.77 mg/l		

Conclusion/Summary: Harmful if swallowed.

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
xylene	Skin - Moderate irritant	Rabbit	-	24 hours 500 mg	1

Conclusion/Summary

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

Eyes : Causes serious eye irritation.

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SECTION 11: Toxicological information

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

Respiratory or skin sensitization

Conclusion/Summary

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

Mutagenicity

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

Carcinogenicity

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

Reproductive toxicity

May damage fertility.

May damage the unborn child.

Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
Solvent naphtha (petroleum), heavy arom. Nota(s) P xylene butan-1-ol	Category 3 Category 3 Category 3 Category 3	-	Narcotic effects Respiratory tract irritation Respiratory tract irritation Narcotic effects

Conclusion/Summary

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

Specific target organ toxicity (repeated exposure)

Product/ingredient name	Category	Route of exposure	Target organs
ethylbenzene	Category 2	-	hearing organs

Conclusion/Summary

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

Aspiration hazard

Product/ingredient name	Result
Solvent naphtha (petroleum), heavy arom. Nota(s) P xylene ethylbenzene	ASPIRATION HAZARD - Category 1 ASPIRATION HAZARD - Category 1 ASPIRATION HAZARD - Category 1

Conclusion/Summary

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

Information on likely routes of exposure

: Not available.

Potential acute health effects

Inhalation : No known significant effects or critical hazards.

Ingestion: Harmful if swallowed.

Skin contact: Defatting to the skin. May cause skin dryness and irritation.

Eye contact : Causes serious eye irritation.

Symptoms related to the physical, chemical and toxicological characteristics

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SECTION 11: Toxicological information

Inhalation : Adverse symptoms may include the following:

reduced foetal weight increase in foetal deaths skeletal malformations

Ingestion: Adverse symptoms may include the following:

reduced foetal weight increase in foetal deaths skeletal malformations

Skin contact: Adverse symptoms may include the following:

irritation dryness cracking

reduced foetal weight increase in foetal deaths skeletal malformations

Eye contact: Adverse symptoms may include the following:

pain or irritation watering redness

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

Short term exposure

Potential immediate

effects

: No known significant effects or critical hazards.

Potential delayed effects: No known significant effects or critical hazards.

Long term exposure

Potential immediate

effects

: No known significant effects or critical hazards.

Potential delayed effects: No known significant effects or critical hazards.

Potential chronic health effects

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

dermatitis.

Carcinogenicity: No known significant effects or critical hazards.

No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Reproductive toxicity : May damage fertility. May damage the unborn child.

Other information : Prolonged or repeated contact may dry skin and cause irritation. Sanding and grinding dusts may be harmful if inhaled. Repeated exposure to high vapor concentrations may

cause irritation of the respiratory system and permanent brain and nervous system damage. Inhalation of vapour/aerosol concentrations above the recommended exposure limits causes headaches, drowsiness and nausea and may lead to

unconsciousness or death. Contains a substance that may emit formaldehyde if stored beyond its shelf life and/or during cure at curing temperatures greater than 60C/140F.

Avoid contact with skin and clothing.

11.2 Information on other hazards

11.2.1 Endocrine disrupting properties

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

11.2.2 Other information

Not available.

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SECTION 12: Ecological information

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.

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
trizinc bis(orthophosphate)	Acute LC50 0.112 mg/l	Fish	96 hours
	Chronic NOEC 0.026 mg/l	Fish	30 days
Solvent naphtha (petroleum), heavy arom. Nota(s) P	NOEL 0.48 mg/l Fresh water	Daphnia	21 days
zinc oxide	Acute EC50 0.17 mg/l	Algae	72 hours
	Acute EC50 0.481 mg/l	Daphnia - Daphnia	48 hours
	Fresh water	magna - Neonate	
	Chronic NOEC 0.017 mg/l	Algae	72 hours
	Fresh water		
ethylbenzene	Acute EC50 1.8 mg/l Fresh	Daphnia	48 hours
	water		
	Chronic NOEC 1 mg/l Fresh	Daphnia -	-
	water	Ceriodaphnia dubia	
butan-1-ol	Acute LC50 1376 mg/l	Fish	96 hours
2-ethylhexanoic acid, cerium salt	Acute LC50 0.5 mg/l Fresh	Fish	96 hours
	water		
octamethylcyclotetrasiloxane	Chronic NOEC 100 mg/l	Daphnia - <i>Daphnia</i>	21 days
	Fresh water	magna	

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

12.2 Persistence and degradability

Product/ingredient name	Test	Result		Dose		Inoculum
ethylbenzene	-	79 % - Readily - 10 days		-		_
Product/ingredient name		Aquatic half-life	Photo	lysis	Bio	degradability
xylene ethylbenzene		-			Readily Readily	

12.3 Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
Solvent naphtha (petroleum), heavy arom. Nota(s)	2.8 to 6.5	-	High
xylene	3.12	7.4 to 18.5	Low
ethylbenzene	3.6	79.43	Low
butan-1-ol	1	-	Low
octamethylcyclotetrasiloxane	6.488		High

12.4 Mobility in soil

Soil/water partition : Not available.

coefficient (Koc)

Mobility : Not available.

12.5 Results of PBT and vPvB assessment

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SECTION 12: Ecological information

Product/ingredient name	PBT	Р	В	Т	vPvB	vP	vB
Solvent naphtha (petroleum), heavy arom. Nota(s) P	No	N/A	N/A	No	N/A	N/A	N/A
xylene	No	N/A	No	No	No	N/A	No
ethylbenzene	No	N/A	No	Yes	No	N/A	No
butan-1-ol	No	N/A	N/A	No	N/A	N/A	N/A
octamethylcyclotetrasiloxane	SVHC (Recommended)	Specified	Specified	Specified	SVHC (Recommended)	Specified	Specified

12.6 Endocrine disrupting properties

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

12.7 Other adverse effects

No known significant effects or critical hazards.

SECTION 13: Disposal considerations

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).

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

European waste catalogue (EWC)

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

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.

Type of packaging	European waste catalogue (EWC)	
Container	15 01 06	mixed packaging

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.

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SECTION 14: Transport information

	ADR/RID	ADN	IMDG	IATA
14.1 UN number or ID number	UN1263	UN1263	UN1263	UN1263
14.2 UN proper shipping name	PAINT	PAINT	PAINT	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. The environmentally hazardous substance mark is not required.
Marine pollutant substances	Not applicable.	Not applicable.	(trizinc bis (orthophosphate))	Not applicable.

Additional information

ADR/RID : The environmentally hazardous substance mark is not required when transported in sizes of ≤5 L or

≤5 kg.

Tunnel code : (D/E)

ADN : The environmentally hazardous substance mark is not required when transported in sizes of ≤5 L or

≤5 kg.

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

IATA : The environmentally hazardous substance mark may appear if required by other transportation

regulations.

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.

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

Intrinsic property	Ingredient name	Status	Reference number	Date of revision
Toxic to reproduction	barium diboron tetraoxide		D(2022) 9120-DC	1/17/2023
PBT	octamethylcyclotetrasiloxane	Recommended	ED/71/2019	4/14/2021
vPvB	octamethylcyclotetrasiloxane	Recommended	ED/71/2019	4/14/2021

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SECTION 15: Regulatory information

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

Product/ingredient name	Entry Number (REACH)
HI-TEMP 1027 HD HARDENER	3
	30
barium diboron tetraoxide	30
octamethylcyclotetrasiloxane	70

Labelling : Restricted to professional users.

Explosive precursors : Not applicable.

Ozone depleting substances (1005/2009/EU)

Not listed.

Seveso Directive

This product is controlled under the Seveso Directive.

Danger criteria

Category	
P5c	
P5c E2	

National regulations

Social Security Code, Articles L 461-1 to L 461-7 : Solvent naphtha (petroleum), heavy arom. Nota(s) P RG 84

xylene RG 4bis, RG 84

ethylbenzene RG 84 butan-1-ol RG 84

Reinforced medical surveillance

References

: Act of July 11, 1977 determining the list of activities which require reinforced medical surveillance: not applicable

Reinforced medical surveillance: Decree no. 2001-97 of 1 February 2001 establishing specific rules for the prevention of risks from carcinogens, mutagens and reprotoxics and amending the Labour code: Decree no. 2003-1254 of 23 December 2003 relating to prevention of chemical risks and amending the Labour code; Decree no. 2004-187 of 26 February 2004 on the placing on the market of biocidal products; Decree no. 88-1231 of 29/12/1988 relating to poisonous preparations and substances.; Decree no. 95-517 of 15 May 1997, relating to the classification of dangerous waste.; Labour code article: R231-53; Labour code: Occupational air (ventilation, air purification): Art. R 232-5 to R 232-5-14; Labour code: Prevention of chemical risk: Art.R231-51 and R 231-54 to R 231-54-9; Labour code: Prevention of fires: Art.R232-12-13 to R 232-12-29 and R 233-30; Labour code: provisions applicable to women: Art. L 234-3 to L 236-6; Labour code: provisions applicable to young workers: Art. L 234-3 to L 236-6; Art: R234-16 ; Labour code: Sanitary installations: Art. R 232-2 à R 232-2-7 ; Law 76-663 of 19 July 1976 amending and implementing decree of 21 September 1977 relating to classified installations for the protection of the environment; Tables of anticipated professional diseases according to article R461-3 of the labour code

15.2 Chemical safety assessment

: No Chemical Safety Assessment has been carried out.

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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]

DNEL = Derived No Effect Level

EUH statement = CLP-specific Hazard statement

PNEC = Predicted No Effect Concentration

RRN = REACH Registration Number

PBT = Persistent, Bioaccumulative and Toxic

vPvB = Very Persistent and Very Bioaccumulative

ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road

ADN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway

IMDG = International Maritime Dangerous Goods

IATA = International Air Transport Association

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

Classification	Justification
Flam. Liq. 3, H226	On basis of test data
Acute Tox. 4, H302	Calculation method
Eye Irrit. 2, H319	Calculation method
Repr. 1B, H360FD	Calculation method
Aquatic Chronic 2, H411	Calculation method

Full text of abbreviated H statements

H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H360D	May damage the unborn child.
H360FD	May damage fertility. May damage the unborn child.
H361f	Suspected of damaging fertility.
H373	May cause damage to organs through prolonged or repeated
	exposure.
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.

Full text of classifications [CLP/GHS]

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SECTION 16: Other information

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. 2 FLAMMABLE LIQUIDS - Category 2 Flam. Liq. 3 FLAMMABLE LIQUIDS - Category 3 Repr. 1B REPRODUCTIVE TOXICITY - Category 1B Repr. 2 REPRODUCTIVE TOXICITY - Category 2 Skin Irrit. 2 SKIN CORROSION/IRRITATION - Category 2 STOT RE 2 SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE -Category 2 STOT SE 3 SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE -Category 3

History

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