

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by UK REACH Regulation SI 2019/758 - United Kingdom (UK)

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

1.1 Product identifier

Product name : Hempel's Favourite Varnish
Product identity : 0125000000, 001344EC
Product type : urethane alkyd varnish

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

Field of application : yacht, ships and shipyards.
Identified uses : Consumer applications.

1.3 Details of the supplier of the safety data sheet

Company details : Hempel UK Ltd
Berwyn House, The Pavilions
Llantarnam Park
Cwmbran
South Wales NP44 3FD
Telephone: 01633 833600
hempel@hempel.com

1.4 Emergency telephone number

Emergency telephone number (with hours of operation)
UK: **01633 833600** (08.00 - 17.00)
Ireland: **01 809 2166** (National Poisons Information Centre, Monday-Sunday; 08:00-22:00)

See Section 4 of the safety data sheet (first aid measures).

Date of issue : 11 December 2025

Date of previous issue : 27 August 2025.

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : Mixture

Classification according to UK CLP/GHS

Flam. Liq. 3, H226 FLAMMABLE LIQUIDS
STOT SE 3, H336 SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Narcotic effects)

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

2.2 Label elements

Hazard pictograms :



Signal word : Warning

Hazard statements : H226 - Flammable liquid and vapour.

H336 - May cause drowsiness or dizziness.

Precautionary statements :

General : Keep out of reach of children. If medical advice is needed, have product container or label at hand.

Prevention : Obtain special instructions before use. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use only outdoors or in a well-ventilated area. Avoid release to the environment. Avoid breathing vapour.

Response : Collect spillage. IF INHALED: Call a POISON CENTER or doctor if you feel unwell.

Storage : Store locked up. Store in a well-ventilated place. Keep container tightly closed.

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

Hazardous ingredients : hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics

Supplemental label elements : Repeated exposure may cause skin dryness or cracking.
Contains phthalic anhydride. May produce an allergic reaction.

Special packaging requirements

Containers to be fitted with child-resistant fastenings : Not applicable.

Tactile warning of danger : Not applicable.

SECTION 2: Hazards identification

2.3 Other hazards

This mixture contains substances that are assessed to be a PBT or a vPvB, refer to Section 3.2. This mixture does not contain any substances that are assessed to be an endocrine disruptor.

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

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Product/ingredient name	Identifiers	%	GB CLP Classification	Type
hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics	REACH #: 01-2119463258-33 EC: 265-150-3 CAS: 64742-48-9 Index: 649-327-00-6	≥25 - ≤50	Flam. Liq. 3, H226 STOT SE 3, H336 Asp. Tox. 1, H304 EUH066	[1]
xylene	REACH #: 01-2119488216-32 EC: 215-535-7 CAS: 1330-20-7 Index: 601-022-00-9	≤3	Flam. Liq. 3, H226 Acute Tox. 4, H312 Acute Tox. 4, H332 Skin Irrit. 2, H315 Asp. Tox. 1, H304 EUH066	[1] [2]
hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, <2% aromatics	REACH #: 01-2119457273-39 EC: 265-150-3 CAS: 64742-48-9 Index: 649-327-00-6	≤3	Asp. Tox. 1, H304	[1]
phthalic anhydride	REACH #: 01-2119457017-41 EC: 201-607-5 CAS: 85-44-9 Index: 607-009-00-4	≤0.3	Acute Tox. 4, H302 Skin Irrit. 2, H315 Eye Dam. 1, H318 Resp. Sens. 1, H334 Skin Sens. 1, H317 STOT SE 3, H335	[1]
2-methylpentane-2,4-diol	REACH #: 01-2119539582-35 EC: 203-489-0 CAS: 107-41-5 Index: 603-053-00-3	≤0.3	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Repr. 2, H361d	[1] [2]

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 and hence require reporting in this section.

Type

[1] Substance classified with a health or environmental hazard

[2] Substance with a workplace exposure limit, see section 8.

[3] Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII

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 breathing is irregular, drowsiness, loss of consciousness or cramps: Call 112 and give immediate treatment (first aid).

Eye contact :

Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Seek immediate medical attention/advice.

Inhalation :

Remove to fresh air and keep at rest in a position comfortable for breathing. Give nothing by mouth. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. If unconscious, place in recovery position and get medical attention immediately.

Skin contact :

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

Ingestion :

If swallowed, seek medical advice immediately and show this container or label. Keep person warm and at rest. Do not induce vomiting unless directed to do so by medical personnel. Lower the head so that vomit will not re-enter the mouth and throat.

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

Potential acute health effects

Eye contact :

No known significant effects or critical hazards.

SECTION 4: First aid measures

Inhalation : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness.

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

Ingestion : Can cause central nervous system (CNS) depression.

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.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Extinguishing media : Recommended: alcohol resistant foam, CO₂, powders, water spray.
Not to be used : waterjet.

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 strongly accumulates in the environment and living organisms including in humans. 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

5.3 Advice for firefighters

Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Fire will produce dense black smoke. Exposure to decomposition products may cause a health hazard. Cool closed containers exposed to fire with water. Do not release runoff from fire to drains or watercourses. 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.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Avoid all direct contact with the spilled material. Exclude sources of ignition and be aware of explosion hazard. Ventilate the area. Avoid breathing vapour or mist. Refer to protective measures listed in sections 7 and 8. No action shall be taken involving any personal risk or without suitable training. If the product contaminates lakes, rivers, or sewers, inform the appropriate authorities in accordance with local regulations.

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).

6.3 Methods and material for containment and cleaning up

SECTION 6: Accidental release measures

Stop leak if without risk. Move containers from spill area. 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 (see Section 13). Use spark-proof tools and explosion-proof equipment. 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

7.1 Precautions for safe handling

Vapors are heavier than air and may spread along floors. Vapors may form explosive mixtures with air. Prevent the creation of flammable or explosive concentrations of vapors in air and avoid vapor concentrations higher than the occupational exposure limits. In addition, the product should be used only in areas from which all naked lights and other sources of ignition have been excluded. Electrical equipment should be protected to the appropriate standard. To dissipate static electricity during transfer, ground drum and connect to receiving container with bonding strap. No sparking tools should be used.

Avoid inhalation of vapour, dust and spray mist. Avoid contact with skin and eyes. Eating, drinking and smoking should be prohibited in area where this material is handled, stored and processed. Appropriate personal protective equipment: see Section 8. Always keep in containers made from the same material as the original one.

7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in a cool, well-ventilated area away from incompatible materials and ignition sources. Keep out of the reach of children. Keep away from: Oxidizing agents, strong alkalis, strong acids. No smoking. Prevent unauthorized access. Containers that are opened must be carefully resealed and kept upright to prevent leakage.

7.3 Specific end use(s)

See separate Product Data Sheet for recommendations or industrial sector specific solutions.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

Product/ingredient name	Exposure limit values
xylene	EH40/2005 WELs (United Kingdom (UK), 1/2020) [xylene, o-,m-,p- or mixed isomers] Absorbed through skin. STEL 15 minutes: 441 mg/m ³ . TWA 8 hours: 50 ppm. TWA 8 hours: 220 mg/m ³ . STEL 15 minutes: 100 ppm.
2-methylpentane-2,4-diol	EH40/2005 WELs (United Kingdom (UK), 1/2020) STEL 15 minutes: 123 mg/m ³ . STEL 15 minutes: 25 ppm. TWA 8 hours: 123 mg/m ³ . TWA 8 hours: 25 ppm.

Biological exposure indices

Product/ingredient name	Exposure limit values
xylene	EH40/2005 BMGVs (United Kingdom (UK), 1/2020) [Xylene, o-, m-, p- or mixed isomers] BGV: 650 mmol/mol creatinine, methyl hippuric acid [in urine]. Sampling time: post shift.

Recommended monitoring procedures

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

Derived effect levels

Not applicable.

SECTION 8: Exposure controls/personal protection

Predicted effect concentrations

Not applicable.

8.2 Exposure controls

Appropriate engineering controls

Arrange sufficient ventilation by local exhaust ventilation and good general ventilation to keep the airborne concentrations of vapors or dust lowest possible and below their respective threshold limit value. Ensure that eyewash stations and safety showers are proximal to the work-station location.

Individual protection measures

General :

Gloves must be worn for all work that may result in soiling. Apron/coveralls/protective clothing must be worn when soiling is so great that regular work clothes do not adequately protect skin against contact with the product. Safety eyewear should be used when there is a likelihood of exposure.



Hygiene measures :

Wash hands, forearms, and face thoroughly after handling compounds and before eating, smoking, using lavatory, and at the end of day.

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.

Hand protection :

Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. The quality of the chemical-resistant protective gloves must be chosen as a function of the specific workplace concentrations and quantity of hazardous substances.

Since the actual work situation is unknown. Supplier of gloves should be contacted in order to find the appropriate type. Below listed glove(s) should be regarded as generic advice:

Recommended: Silver Shield / Barrier / 4H gloves, polyvinyl alcohol (PVA), Viton®, nitrile rubber (>0.3 mm)

May be used: nitrile rubber (>0.1 mm)

Short term exposure: neoprene rubber (>0.1 mm), butyl rubber (>0.5 mm), natural rubber (latex) (>0.4 mm), polyvinyl chloride (PVC), butyl rubber (>0.3 mm)

Body protection :

Personal protective equipment for the body should be selected based on the task being performed and the risks involved handling this product.

Wear suitable protective clothing. Always wear protective clothing when spraying.

Respiratory protection :

When the product is applied by spraying and for continuous or prolonged work always wear an air-fed respirator e.g. hood with supply of fresh or compressed air or a full face, powered air purifying filter.

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 working areas have insufficient ventilation: When the product is applied by means that will not generate an aerosol such as, brush or roller wear half or totally covering mask equipped with gas filter of type A, when grinding use particle filter of type P. (EN140) Be sure to use an approved/certified respirator or equivalent.

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

Physical state : Liquid.

Colour : Transparent

Odour : Solvent-like

pH : Testing not relevant or not possible due to nature of the product.

Melting point/freezing point : Testing not relevant or not possible due to nature of the product.

Boiling point/boiling range : Testing not relevant or not possible due to nature of the product.

Flash point : Closed cup: 38°C (100.4°F)

SECTION 9: Physical and chemical properties

Evaporation rate :	Testing not relevant or not possible due to nature of the product.																										
Flammability :	Highly flammable in the presence of the following materials or conditions: open flames, sparks and static discharge and heat.																										
Vapour pressure :	<table border="1"><thead><tr><th></th><th colspan="3">Vapour Pressure at 20°C</th><th colspan="3">Vapour pressure at 50°C</th></tr><tr><th>Ingredient name</th><th>mm Hg</th><th>kPa</th><th>Method</th><th>mm Hg</th><th>kPa</th><th>Method</th></tr></thead><tbody><tr><td>hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics</td><td>0.75006 - 2.25018</td><td>0.1 - 0.3</td><td></td><td></td><td></td><td></td></tr></tbody></table>							Vapour Pressure at 20°C			Vapour pressure at 50°C			Ingredient name	mm Hg	kPa	Method	mm Hg	kPa	Method	hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics	0.75006 - 2.25018	0.1 - 0.3				
	Vapour Pressure at 20°C			Vapour pressure at 50°C																							
Ingredient name	mm Hg	kPa	Method	mm Hg	kPa	Method																					
hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics	0.75006 - 2.25018	0.1 - 0.3																									
Vapour density :	Not available.																										
Specific gravity :	0.92 g/cm³																										
Partition coefficient (LogKow) :	Testing not relevant or not possible due to nature of the product.																										
Auto-ignition temperature :	<table border="1"><thead><tr><th>Ingredient name</th><th>°C</th><th>°F</th><th>Method</th></tr></thead><tbody><tr><td>hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics</td><td>280 - 470</td><td>536 - 878</td><td></td></tr></tbody></table>						Ingredient name	°C	°F	Method	hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics	280 - 470	536 - 878														
Ingredient name	°C	°F	Method																								
hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics	280 - 470	536 - 878																									
Decomposition temperature :	Testing not relevant or not possible due to nature of the product.																										
Viscosity :	Aspiration hazard (H304) Not classified. Testing not relevant due to nature of the product.																										
Explosive properties :	Testing not relevant or not possible due to nature of the product.																										
Oxidising properties :	Testing not relevant or not possible due to nature of the product.																										

9.2 Other information

Solvent(s) % by weight :	Weighted average: 43 %
Water % by weight :	Weighted average: 0 %
VOC content :	395.4 g/l
TOC Content :	Weighted average: 354 g/l
Solvent Gas :	Weighted average: 0.069 m³/l

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

Avoid all possible sources of ignition (spark or flame). Do not pressurise, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.

10.5 Incompatible materials

Reactive or incompatible with the following materials: oxidising materials.

Slightly reactive or incompatible with the following materials: reducing materials.

10.6 Hazardous decomposition products

When exposed to high temperatures (i.e. in case of fire) harmful decomposition products may be formed:

Decomposition products may include the following materials: carbon oxides

SECTION 11: Toxicological information

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

Exposure to component solvent vapor concentrations 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. Solvents may cause some of the above effects by absorption through the skin. Symptoms and signs include headaches, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness. Repeated or prolonged contact with the preparation 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. Accidental swallowing may cause stomach pain. Chemical lung inflammation may occur if the product is taken into the lungs via vomiting.

Acute toxicity

Product/ingredient name	Result	Dose / Exposure	Effects
hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics xylene	Rat - Oral - LD50 Rabbit - Dermal - LD50 Rat - Oral - LD50 Rat - Inhalation - LC50 Vapour Rat - Inhalation - LC50 Gas. Rabbit - Dermal - LD50	>2000 mg/kg >4200 mg/kg 3523 mg/kg 6350 ppm [4 hours] 5000 ppm [4 hours] >5000 mg/kg	
hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics	Rat - Oral - LD50 Rat - Inhalation - LC50 Vapour	>6000 mg/kg 8500 mg/m ³ [4 hours]	Lung, Thorax, or Respiration - Other changes
2-(5-chloro-2H-benzotriazole-2-yl)-6-(1,1-dimethylethyl)-4-methyl-phenol	Rat - Oral - LD50	>2000 mg/kg	
phthalic anhydride	Rat - Dermal - LD50 Rabbit - Dermal - LD50	>2000 mg/kg >3160 mg/kg	
2-methylpentane-2,4-diol	Rat - Oral - LD50 Rabbit - Dermal - LD50	1530 mg/kg 3700 mg/kg 8560 mg/kg	

Acute toxicity estimates

Product/ingredient name	Oral mg/kg	Dermal mg/kg	Inhalation (gases) ppm	Inhalation (vapours) mg/l	Inhalation (dusts and mists) mg/l
Hempel's Favourite Varnish xylene phthalic anhydride 2-methylpentane-2,4-diol	3523 1530 3700	62278.8 1100 8560	283085.4 5000		

Irritation/Corrosion

Product/ingredient name	Result	Species	Exposure
hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics xylene	Rabbit - Eyes - Mild irritant Rabbit - Eyes - Severe irritant Rabbit - Skin - Moderate irritant	Duration of treatment/exposure: 24 hours Duration of treatment/exposure: 24 hours	Amount/concentration applied: 5 milligrams Amount/concentration applied: 500 milligrams
phthalic anhydride	Rabbit - Skin - Irritant Rabbit - Eyes - Moderate irritant	Duration of treatment/exposure: 24 hours	Amount/concentration applied: 50 milligrams
2-methylpentane-2,4-diol	Rabbit - Skin - Moderate irritant Rabbit - Skin - Moderate irritant Rabbit - Skin - Irritant	Duration of treatment/exposure: 24 hours Duration of treatment/exposure: 24 hours Duration of treatment/exposure: 24 hours	Amount/concentration applied: 500 milligrams Amount/concentration applied: 465 milligrams

Sensitiser

Product/ingredient name	Species - Route of exposure	Result
phthalic anhydride	Guinea pig - skin Mouse - skin	Sensitising Sensitising

Mutagenic effects

No known data available in our database.

Carcinogenicity

No known data available in our database.

Reproductive toxicity

SECTION 11: Toxicological information

No known data available in our database.

Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics phthalic anhydride	Category 3		Narcotic effects
	Category 3		Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Product/ingredient name	Category	Route of exposure	Target organs
No known data available in our database.			

Aspiration hazard

Product/ingredient name	Result
hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics	ASPIRATION HAZARD - Category 1
hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, <2% aromatics	ASPIRATION HAZARD - Category 1

Information on likely routes of exposure

Routes of entry anticipated: Oral, Dermal, Inhalation.

Potential chronic health effects

No known significant effects or critical hazards.

11.2 Information on other hazards

Other information : No additional known significant effects or critical hazards.

SECTION 12: Ecological information

12.1 Toxicity

Do not allow to enter drains or watercourses.

Product/ingredient name	Result	Species	Exposure
2-(5-chloro-2H-benzotriazole-2-yl)-6-(1,1-dimethylethyl)-4-methyl-phenol	Acute - LC50	Fish	>100 mg/l [96 hours]
phthalic anhydride	Acute - EC50	Daphnia	100 mg/l [24 hours]
	Acute - EC50 - Fresh water	Daphnia	>640 mg/l [48 hours]

12.2 Persistence and degradability

Product/ingredient name	Test	Result
hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics xylene	OECD Ready Biodegradability - Manometric Respirometry Test	80% [28 days] - Readily >60% [28 days] - Readily 90 - 98% [28 days] - Readily
phthalic anhydride	OECD Ready Biodegradability - Manometric Respirometry Test	85.2% [28 days] - Readily

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics xylene 2-(5-chloro-2H-benzotriazole-2-yl)-6-(1,1-dimethylethyl)-4-methyl-phenol phthalic anhydride			Readily Readily Not readily Readily

12.3 Bioaccumulative potential

SECTION 12: Ecological information

Product/ingredient name	LogP _{ow}	BCF	Potential
hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics	5 - 6.7	10 - 2500	High
xylene	3.12	8.1 - 25.9	Low
hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics	-	10 - 2500	High
2-(5-chloro-2H-benzotriazole-2-yl)-6-(1,1-dimethylethyl)-4-methyl-phenol	>6	548 - 895	High
phthalic anhydride	1.6	3.4	Low
2-methylpentane-2,4-diol	0.58	-	Low

12.4 Mobility in soil

Soil/water partition coefficient

Product/ingredient name	logK _{oc}	K _{oc}
xylene	1.6 - 2.6	39 - 365
2-(5-chloro-2H-benzotriazole-2-yl)-6-(1,1-dimethylethyl)-4-methyl-phenol	3.2	1443.01
phthalic anhydride	1.6	36.3099
2-methylpentane-2,4-diol	1.2	15.2204

Results of PMT and vPvM assessment

Product/ingredient name	PMT	P	M	T	vPvM	vP	vM
hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics	No	No	N/A	No	No	No	No
xylene	No	No	Yes	No	No	No	No
hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics	No	No	N/A	No	No	No	No
2-(5-chloro-2H-benzotriazole-2-yl)-6-(1,1-dimethylethyl)-4-methyl-phenol	No	Yes	No	No	No	Yes	No
phthalic anhydride	No	No	Yes	No	No	No	No
2-methylpentane-2,4-diol	No	No	Yes	No	No	No	No

Mobility :

The product does not meet the criteria to be considered as a PMT or vPvM.

12.5 Results of PBT and vPvB assessment

Conclusion/Summary :  Strongly accumulates in the environment and living organisms including in humans.

12.6 Other adverse effects

No known significant effects or critical hazards.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

The generation of waste should be avoided or minimised wherever possible. Residues of the product is listed as hazardous waste. Dispose of according to all state and local applicable regulations. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Spillage, remains, discarded clothes and similar should be discarded in a fireproof container.

European waste catalogue no. (EWC) is given below.

European waste catalogue (EWC) : 08 01 11*

Packaging

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.

SECTION 14: Transport information

Transport may take place according to national regulation or ADR for transport by road, RID for transport by train, IMDG for transport by sea, IATA for transport by air.

SECTION 14: Transport information

14.1 UN / ID no.	14.2 Proper shipping name	14.3 Transport hazard class(es)	14.4 PG*	14.5 Env* Additional information
ADR/RID Class	UN1263 PAINT	3 	III	No. <u>Tunnel code</u> (D/E)
IMDG Class	UN1263 PAINT	3 	III	No. <u>Emergency schedules</u> F-E, S-E
IATA Class	UN1263 PAINT	3 	III	No. -

PG* : Packing group

Env.* : Environmental hazards

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 - Substances of very high concern

Annex XIV

None of the components are listed.

Substances of very high concern

Ingredient name	Intrinsic property	Status	Reference number	Date of revision
2-(5-chloro-2H-benzotriazole-2-yl)-6-(1,1-dimethylethyl)-4-methyl-phenol	vPvB	Candidate	D(2023)8585-DC	1/23/2024

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

Not applicable.

Other EU regulations

Seveso category This product is controlled under the Seveso III Directive.

Seveso category
P5c: Flammable liquids 2 and 3 not falling under P5a or P5b

15.2 Chemical safety assessment

This product contains substances for which Chemical Safety Assessments are still required.

SECTION 16: Other information

Abbreviations and acronyms :

ATE = Acute Toxicity Estimate
 CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
 EUH statement = CLP-specific Hazard statement
 RRN = REACH Registration Number
 DNEL = Derived No Effect Level
 PNEC = Predicted No Effect Concentration

SECTION 16: Other information

Full text of abbreviated H statements :	H226 H302 H304 H312 H315 H317 H318 H319 H332 H334 H335 H336 H361d EUH441 EUH066	Flammable liquid and vapour. Harmful if swallowed. May be fatal if swallowed and enters airways. Harmful in contact with skin. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye damage. Causes serious eye irritation. Harmful if inhaled. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause respiratory irritation. May cause drowsiness or dizziness. Suspected of damaging the unborn child. Strongly accumulates in the environment and living organisms including in humans. Repeated exposure may cause skin dryness or cracking.
Full text of classifications [CLP/GHS] :	Acute Tox. 4 Asp. Tox. 1 Eye Dam. 1 Eye Irrit. 2 Flam. Liq. 3 Repr. 2 Resp. Sens. 1 Skin Irrit. 2 Skin Sens. 1 STOT SE 3 vPvB	ACUTE TOXICITY - Category 4 ASPIRATION HAZARD - Category 1 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2 FLAMMABLE LIQUIDS - Category 3 REPRODUCTIVE TOXICITY - Category 2 RESPIRATORY SENSITISATION - Category 1 SKIN CORROSION/IRRITATION - Category 2 SKIN SENSITISATION - Category 1 SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 3 VERY PERSISTENT AND VERY BIOACCUMULATIVE

Classification	Justification
FLAMMABLE LIQUIDS SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Narcotic effects)	On basis of test data Calculation method

Notice to reader

 Indicates information that has changed from previously issued version.

The information contained in this safety data sheet is based on the present state of knowledge and EU and national legislation. It provides guidance on health, safety and environmental aspects for handling the product in a safe way and should not be construed as any guarantee of the technical performance or suitability for particular applications.

It is always the duty of the user/employer to ascertain that the work is planned and carried out in accordance with the national regulations.