

Hardtop Pro Comp A

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

1.1 Product identifier

Product name : Hardtop Pro Comp A
Product code : 27220
Product description : Paint.
Product type : Liquid.
Other means of identification : Not available.

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

Identified uses

Use in coatings - Professional use

1.3 Details of the supplier of the safety data sheet

MANUFACTURER/SUPPLIER:

Jotun Paints (Europe) Ltd.
Stather Road
Flixborough, Scunthorpe
North Lincolnshire
DN15 8RR
England

Tel: +44 17 24 40 00 00
Fax: +44 17 24 40 01 00
SDSJotun@jotun.com

1.4 Emergency telephone number

Contact NHS Direct; phone 0845 4647 or 111. Open 24/7.

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
 STOT RE 2, H373 (central nervous system (CNS))
 Aquatic Chronic 3, H412

2.2 Label elements

Hazard pictograms :



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SECTION 2: Hazards identification

Signal word	: Warning.
Hazard statements	: H226 - Flammable liquid and vapour. H336 - May cause drowsiness or dizziness. H373 - May cause damage to organs through prolonged or repeated exposure. (central nervous system (CNS)) H412 - Harmful to aquatic life with long lasting effects.
Precautionary statements	
General	: Xn Not applicable.
Prevention	: P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P271 - Use only outdoors or in a well-ventilated area. P273 - Avoid release to the environment. P260 - Do not breathe vapour.
Response	: P314 - Get medical attention if you feel unwell. P304 + P340 + P312 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or physician if you feel unwell.
Storage	: P403 - Store in a well-ventilated place. P235 - Keep cool.
Disposal	: P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
Hazardous ingredients	: Xn -butyl acetate hydrocarbons, C9, aromatics, (<0.1% Benzene) hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%), (<0.1% Benzene)
Supplemental label elements	: Xn Contains bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate, methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate, n-butyl acrylate and fatty acids, C14-18 and C16-18-unsatd., maleated. May produce an allergic reaction.

2.3 Other hazards

Other hazards which do not result in classification	: None known.
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SECTION 3: Composition/information on ingredients

Substance/mixture : Mixture

Product/ingredient name	Identifiers	%	Classification		
			Regulation (EC) No. 1272/2008 [CLP]	Type	Notes
Xn -butyl acetate	REACH #: 01-2119485493-29 EC: 204-658-1 CAS: 123-86-4	≥10 - ≤25	Flam. Liq. 3, H226 STOT SE 3, H336 EUH066	[1] [2]	-
hydrocarbons, C9, aromatics, (<0.1% Benzene)	REACH #: 01-2119455851-35 EC: 918-668-5 CAS: 64742-95-6	≤8.8	Flam. Liq. 3, H226 STOT SE 3, H335 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Chronic 2, H411	[1] [2]	H-P
xylene	REACH #: 01-2119488216-32 EC: 215-535-7 CAS: 1330-20-7 Index: 601-022-00-9	≤5	Flam. Liq. 3, H226 Acute Tox. 4, H312 Acute Tox. 4, H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319	[1] [2]	C
ethylbenzene	REACH #: 01-2119489370-35 EC: 202-849-4 CAS: 100-41-4	≤3	Flam. Liq. 2, H225 Acute Tox. 4, H332 STOT RE 2, H373 (hearing organs)	[1] [2]	-

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SECTION 3: Composition/information on ingredients

hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%), (<0.1% Benzene)	Index: 601-023-00-4 REACH #: 01-2119458049-33 EC: 919-446-0 CAS: 64742-82-1	≤1.8	Asp. Tox. 1, H304 Flam. Liq. 3, H226 STOT SE 3, H336 STOT RE 1, H372 (central nervous system (CNS)) Asp. Tox. 1, H304 Aquatic Chronic 2, H411 EUH066	[1] [2]	H-P
bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate	REACH #: 01-2119491304-40 EC: 255-437-1 CAS: 41556-26-7	<1	Skin Sens. 1, H317 Aquatic Acute 1, H400 (M=1) Aquatic Chronic 1, H410 (M=1)	[1]	-
fatty acids, C14-18 and C16-18-unsatd., maleated n-butyl acrylate	REACH #: 01-2119976378-19 REACH #: 01-2119453155-43 EC: 205-480-7 CAS: 141-32-2 Index: 607-062-00-3	<1 ≤0.3	Skin Irrit. 2, H315 Skin Sens. 1, H317 Flam. Liq. 3, H226 Acute Tox. 4, H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 STOT SE 3, H335 Aquatic Chronic 3, H412	[1] [1] [2]	- D
methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	REACH #: 01-2119491304-40 EC: 280-060-4 CAS: 82919-37-7	≤0.3	Skin Sens. 1, H317 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.		

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 or vPvBs 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

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

SECTION 4: First aid measures

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.

Contains bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate, fatty acids, C14-18 and C16-18-unsatd., maleated, n-butyl acrylate, methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate. May produce an allergic reaction.

Potential acute health effects

Eye contact : No known significant effects or critical hazards.

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

Skin contact : No known significant effects or critical hazards.

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 : No specific data.

Ingestion : No specific data.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Specific treatments : No specific treatment.

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

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SECTION 5: Firefighting measures

Hazards from the substance or mixture : Flammable liquid and vapour. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Runoff to sewer may create fire or explosion hazard. This material is harmful 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
nitrogen oxides
sulfur 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.

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.

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 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.

SECTION 6: Accidental release measures

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

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. 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 leakage.

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. 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

SECTION 8: Exposure controls/personal protection

Product/ingredient name	Exposure limit values
n-butyl acetate	EH40/2005 WELs (United Kingdom (UK), 12/2011). STEL: 966 mg/m ³ 15 minutes. STEL: 200 ppm 15 minutes. TWA: 724 mg/m ³ 8 hours. TWA: 150 ppm 8 hours.
hydrocarbons, C9, aromatics, (<0.1% Benzene)	EH40-WEL (United Kingdom (UK), 12/2011). Absorbed through skin. TWA: 200 mg/m ³ 8 hours. Form: All forms TWA: 40 ppm 8 hours. Form: All forms
xylene	EH40/2005 WELs (United Kingdom (UK), 12/2011). Absorbed through skin. STEL: 441 mg/m ³ 15 minutes. STEL: 100 ppm 15 minutes. TWA: 220 mg/m ³ 8 hours. TWA: 50 ppm 8 hours.
ethylbenzene	EH40/2005 WELs (United Kingdom (UK), 12/2011). Absorbed through skin. STEL: 552 mg/m ³ 15 minutes. STEL: 125 ppm 15 minutes. TWA: 100 ppm 8 hours. TWA: 441 mg/m ³ 8 hours.
hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%), (<0.1% Benzene)	EH40-WEL (United Kingdom (UK), 1/2005). STEL: 850 mg/m ³ 15 minutes. Form: All forms STEL: 150 ppm 15 minutes. Form: All forms TWA: 566 mg/m ³ 8 hours. Form: All forms TWA: 100 ppm 8 hours. Form: All forms
n-butyl acrylate	EH40/2005 WELs (United Kingdom (UK), 12/2011). STEL: 26 mg/m ³ 15 minutes. STEL: 5 ppm 15 minutes. TWA: 5 mg/m ³ 8 hours. TWA: 1 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.

Derived no effect levels

Product/ingredient name	Type	Exposure	Value	Population	Effects
n-butyl acetate	DNEL	Short term Inhalation	960 mg/m ³	Workers	Systemic
	DNEL	Short term Inhalation	960 mg/m ³	Workers	Local
	DNEL	Long term Inhalation	480 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	480 mg/m ³	Workers	Local
	DNEL	Short term Inhalation	859.7 mg/m ³	Consumers	Systemic
	DNEL	Short term Inhalation	859.7 mg/m ³	Consumers	Local

SECTION 8: Exposure controls/personal protection

hydrocarbons, C9, aromatics, (<0.1% Benzene)	DNEL	Inhalation Long term	m ³ 102.34 mg/ m ³	Consumers	Systemic	
	DNEL	Inhalation Long term	m ³ 102.34 mg/ m ³	Consumers	Local	
	DNEL	Dermal Long term	25 mg/kg bw/day	Workers	Systemic	
	DNEL	Inhalation Long term	150 mg/m ³	Workers	Systemic	
	DNEL	Dermal Long term	11 mg/kg bw/day	Consumers	Systemic	
	DNEL	Inhalation Long term	32 mg/m ³	Consumers	Systemic	
	DNEL	Oral Long term	11 mg/kg bw/day	Consumers	Systemic	
	xylene	DNEL	Inhalation Short term	289 mg/m ³	Workers	Systemic
		DNEL	Inhalation Short term	289 mg/m ³	Workers	Local
		DNEL	Dermal Long term	180 mg/kg bw/day	Workers	Systemic
DNEL		Inhalation Long term	77 mg/m ³	Workers	Systemic	
DNEL		Dermal Long term	108 mg/kg bw/day	Consumers	Systemic	
DNEL		Inhalation Long term	14.8 mg/m ³	Consumers	Systemic	
DNEL		Oral Long term	1.6 mg/kg bw/day	Consumers	Systemic	
ethylbenzene		DNEL	Inhalation Short term	293 mg/m ³	Workers	Local
		DNEL	Dermal Long term	180 mg/kg bw/day	Workers	Systemic
		DNEL	Inhalation Long term	77 mg/m ³	Workers	Systemic
	DNEL	Inhalation Long term	15 mg/m ³	Consumers	Systemic	
	DNEL	Oral Long term	1.6 mg/kg bw/day	Consumers	Systemic	
	hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%), (<0.1% Benzene)	DNEL	Inhalation Long term	330 mg/m ³	Workers	Systemic
		DNEL	Dermal Long term	44 mg/kg bw/day	Workers	Systemic
		DNEL	Inhalation Long term	71 mg/m ³	Consumers	Systemic
		DNEL	Dermal Long term	26 mg/kg bw/day	Consumers	Systemic
		DNEL	Oral Long term	26 mg/kg bw/day	Consumers	Systemic

Predicted no effect concentrations

Product/ingredient name	Type	Compartment Detail	Value	Method Detail	
n-butyl acetate	PNEC	Fresh water	0.18 mg/l	-	
	PNEC	Marine	0.018 mg/l	-	
	PNEC	Sewage Treatment Plant	35.6 mg/l	-	
	PNEC	Fresh water sediment	0.981 mg/kg dwt	-	
	PNEC	Marine water sediment	0.0981 mg/kg dwt	-	
	xylene	PNEC	Soil	0.0903 mg/kg dwt	-
		PNEC	Fresh water	0.327 mg/l	-

SECTION 8: Exposure controls/personal protection

ethylbenzene	PNEC	Marine	0.327 mg/l	-
	PNEC	Sewage Treatment Plant	6.58 mg/l	-
	PNEC	Fresh water sediment	12.46 mg/kg dwt	-
	PNEC	Marine water sediment	12.46 mg/kg dwt	-
	PNEC	Soil	2.31 mg/kg dwt	-
	PNEC	Fresh water	0.1 mg/l	-
	PNEC	Marine	0.01 mg/l	-
	PNEC	Sewage Treatment Plant	9.6 mg/l	-
	PNEC	Fresh water sediment	13.7 mg/kg dwt	-
	PNEC	Soil	2.68 mg/kg dwt	-
	PNEC	Secondary Poisoning	20 mg/kg	-

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

- : Safety eyewear complying to EN 166 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.

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.
 Wear suitable gloves tested to EN374.
 Not recommended, gloves(breakthrough time) < 1 hour: Viton®, PE, neoprene, PVC
 May be used, gloves(breakthrough time) 4 - 8 hours: butyl rubber, nitrile rubber
 Recommended, gloves(breakthrough time) > 8 hours: 4H, Teflon, polyvinyl alcohol (PVA)

For right choice of glove materials, with focus on chemical resistance and time of penetration, seek advice by the supplier of chemical resistant gloves.

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.

SECTION 8: Exposure controls/personal protection

- 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.
- 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** : If workers are exposed to concentrations above the exposure limit, they must use a respirator according to EN 140. Use respiratory mask with charcoal and dust filter when spraying this product, according to EN 14387(as filter combination A2-P2). In confined spaces, use compressed-air or fresh-air respiratory equipment. When use of roller or brush, consider use of charcoalfilter.
- 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** : Characteristic.
- Odour threshold** : Not applicable.
- pH** : Not applicable.
- Melting point/freezing point** : Not applicable.
- Initial boiling point and boiling range** : Lowest known value: 126°C (258.8°F) (n-butyl acetate). Weighted average: 130.41°C (266.7°F)
- Flash point** : Closed cup: 28°C
- Evaporation rate** : Highest known value: 1 (n-butyl acetate) Weighted average: 0.91 compared with butyl acetate
- Flammability (solid, gas)** : Not applicable.
- Burning time** : Not applicable.
- Burning rate** : Not applicable.
- Upper/lower flammability or explosive limits** : 0.8 - 7.6%
- Vapour pressure** : Highest known value: 2.7 kPa (20.3 mm Hg) (at 20°C) (hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%), (<0.1% Benzene)). Weighted average: 1.43 kPa (10.73 mm Hg) (at 20°C)
- Vapour density** : Highest known value: 4 (Air = 1) (n-butyl acetate). Weighted average: 3.93 (Air = 1)
- Relative density** : 1.308 to 1.494 g/cm³
- Solubility(ies)** : Not available.
- Partition coefficient: n-octanol/ water** : Not available.
- Auto-ignition temperature** : Lowest known value: 280 to 470°C (536 to 878°F) (Solvent naphtha (petroleum), light arom.).
- Decomposition temperature** : Not available.
- Viscosity** : Kinematic (40°C): >0.205 cm²/s (>20.5 mm²/s)

SECTION 9: Physical and chemical properties**Explosive properties** : Not available.**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** : 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** : Keep away from the following materials to prevent strong exothermic reactions: oxidising agents, strong alkalis, strong acids.
 Under normal conditions of storage and use, hazardous reactions will not occur.**10.6 Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.**SECTION 11: Toxicological information****11.1 Information on toxicological effects** 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.

Contains bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate, fatty acids, C14-18 and C16-18-unsatd., maleated, n-butyl acrylate, methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate. May produce an allergic reaction.

Product/ingredient name	Result	Species	Dose	Exposure
<input checked="" type="checkbox"/> n-butyl acetate	LC50 Inhalation Vapour	Rat	>21.1 mg/l	4 hours
	LD50 Dermal	Rabbit	>17600 mg/kg	-
	LD50 Oral	Rat	13100 mg/kg	-
xylene	LC50 Inhalation Vapour	Rat	20 mg/l	4 hours
	LD50 Oral	Rat	4300 mg/kg	-
	TDLo Dermal	Rabbit	4300 mg/kg	-
ethylbenzene	LC50 Inhalation Gas.	Rabbit	4000 ppm	4 hours
	LD50 Dermal	Rabbit	>5000 mg/kg	-
	LD50 Oral	Rat	3500 mg/kg	-

Acute toxicity estimates

Route	ATE value
<input checked="" type="checkbox"/> Dermal	26690.9 mg/kg
Inhalation (vapours)	200.2 mg/l

SECTION 11: Toxicological information**Irritation/Corrosion**

Product/ingredient name	Result	Species	Score	Exposure	Observation
n-butyl acrylate	Eyes - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
	Eyes - Mild irritant	Rabbit	-	50 milligrams	-
	Skin - Mild irritant	Rabbit	-	24 hours 10 milligrams	-
	Skin - Mild irritant	Rabbit	-	500 milligrams	-

Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
n-butyl acetate	Category 3	Not applicable.	Narcotic effects
hydrocarbons, C9, aromatics, (<0.1% Benzene)	Category 3	Not applicable.	Respiratory tract irritation and Narcotic effects
hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%), (<0.1% Benzene)	Category 3	Not applicable.	Narcotic effects
n-butyl acrylate	Category 3	Not applicable.	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Product/ingredient name	Category	Route of exposure	Target organs
ethylbenzene	Category 2	Not determined	hearing organs
hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%), (<0.1% Benzene)	Category 1	Not determined	central nervous system (CNS)

Aspiration hazard

Product/ingredient name	Result
hydrocarbons, C9, aromatics, (<0.1% Benzene)	ASPIRATION HAZARD - Category 1
ethylbenzene	ASPIRATION HAZARD - Category 1
hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%), (<0.1% Benzene)	ASPIRATION HAZARD - Category 1

Potential acute health effects

- Eye contact** : No known significant effects or critical hazards.
- Inhalation** : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness.
- Skin contact** : No known significant effects or critical hazards.
- Ingestion** : Can cause central nervous system (CNS) depression.

Symptoms related to the physical, chemical and toxicological characteristics

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

Potential chronic health effects

- General** : May cause damage to organs through prolonged or repeated exposure.
- Carcinogenicity** : No known significant effects or critical hazards.

SECTION 11: Toxicological information

Mutagenicity	: No known significant effects or critical hazards.
Teratogenicity	: No known significant effects or critical hazards.
Developmental effects	: No known significant effects or critical hazards.
Fertility effects	: No known significant effects or critical hazards.

SECTION 12: Ecological information**12.1 Toxicity**

Product/ingredient name	Result	Species	Exposure
hydrocarbons, C9, aromatics, (<0.1% Benzene)	Acute EC50 <10 mg/l	Daphnia	48 hours
ethylbenzene	Acute IC50 <10 mg/l	Algae	72 hours
	Acute LC50 <10 mg/l	Fish	96 hours
	Acute EC50 7.2 mg/l	Algae	48 hours
	Acute EC50 2.93 mg/l	Daphnia	48 hours
hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%), (<0.1% Benzene)	Acute LC50 4.2 mg/l	Fish	96 hours
	Acute EC50 <10 mg/l	Daphnia	48 hours
	Acute IC50 <10 mg/l	Algae	72 hours
	Acute LC50 <10 mg/l	Fish	96 hours

Conclusion/Summary : This material is harmful to aquatic life with long lasting effects.

12.2 Persistence and degradability

Conclusion/Summary : Not available.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
hydrocarbons, C9, aromatics, (<0.1% Benzene)	-	-	Not readily
xylene	-	-	Readily
ethylbenzene	-	-	Readily
hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%), (<0.1% Benzene)	-	-	Not readily
bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate	-	-	Not readily
methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	-	-	Not readily

12.3 Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
n-butyl acetate	2.3	-	low
hydrocarbons, C9, aromatics, (<0.1% Benzene)	-	10 to 2500	high
xylene	3.12	8.1 to 25.9	low
ethylbenzene	3.6	-	low
hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%), (<0.1% Benzene)	-	10 to 2500	high
n-butyl acrylate	2.38	17.27	low

12.4 Mobility in soil

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SECTION 12: Ecological information

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

12.5 Results of PBT and vPvB assessment

- PBT** : Not applicable.
vPvB : Not applicable.

- 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. 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

Do not allow to enter drains or watercourses. Material and/or container must be disposed of as hazardous waste.

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

SECTION 14: Transport information

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.

Transport in accordance with ADR/RID, IMDG/IMO and ICAO/IATA and national regulation.

International transport regulations

- 14.1 UN number** : 1263
14.2 UN proper shipping name : Paint
14.3 Transport hazard class(es) : 3



- 14.4 Packing group** : III

- 14.5 Environmental hazards** : No.

- 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.

Additional information

- ADR / RID** : Tunnel restriction code: (D/E)
Hazard identification number: 30
ADR/RID: Viscous substance. Not restricted, ref. chapter 2.2.3.1.5 (applicable to receptacles < 450 litre capacity).

- IMDG** : **Emergency schedules (EmS)**
F-E, S-E
IMDG: Viscous substance. Transport in accordance with paragraph 2.3.2.5 (applicable to receptacles < 30 litre capacity).

SECTION 14: Transport information

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

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

None of the components are listed.

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

Other EU regulations

Europe inventory : At least one component is not listed.

Black List Chemicals : Not listed

Industrial emissions (integrated pollution prevention and control) - Air : Not listed

Industrial emissions (integrated pollution prevention and control) - Water : Not listed

Chemical Weapons Convention List Schedule I Chemicals : Not listed

Chemical Weapons Convention List Schedule II Chemicals : Not listed

Chemical Weapons Convention List Schedule III Chemicals : Not listed

15.2 Chemical safety assessment : Not applicable.

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

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

SECTION 16: Other information

Classification	Justification
Flam. Liq. 3, H226 STOT SE 3, H336 STOT RE 2, H373 (central nervous system (CNS)) Aquatic Chronic 3, H412	On basis of test data Calculation method Calculation method Calculation method

Full text of abbreviated H statements

: H225 H226 H304 H312 H315 H317 H319 H332 H335 H336 H372 H373 H400 H410 H411 H412	Highly flammable liquid and vapour. Flammable liquid and vapour. 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 irritation. Harmful if inhaled. May cause respiratory irritation. May cause drowsiness or dizziness. Causes damage to organs through prolonged or repeated exposure. May cause damage to organs through prolonged or repeated exposure. 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.
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Full text of classifications [CLP/GHS]

: Acute Tox. 4, H312 Acute Tox. 4, H332 Aquatic Acute 1, H400 Aquatic Chronic 1, H410 Aquatic Chronic 2, H411 Aquatic Chronic 3, H412 Asp. Tox. 1, H304 EUH066 Eye Irrit. 2, H319 Flam. Liq. 2, H225 Flam. Liq. 3, H226 Skin Irrit. 2, H315 Skin Sens. 1, H317 STOT RE 1, H372 STOT RE 2, H373 STOT SE 3, H335 STOT SE 3, H336	ACUTE TOXICITY (dermal) - Category 4 ACUTE TOXICITY (inhalation) - Category 4 ACUTE AQUATIC HAZARD - Category 1 LONG-TERM AQUATIC HAZARD - Category 1 LONG-TERM AQUATIC HAZARD - Category 2 LONG-TERM AQUATIC HAZARD - Category 3 ASPIRATION HAZARD - Category 1 Repeated exposure may cause skin dryness or cracking. SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2 FLAMMABLE LIQUIDS - Category 2 FLAMMABLE LIQUIDS - Category 3 SKIN CORROSION/IRRITATION - Category 2 SKIN SENSITISATION - Category 1 SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 1 SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 2 SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Respiratory tract irritation) - Category 3 SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Narcotic effects) - Category 3
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