

SAFETY DATA SHEET

Date of issue/Date of revision

: 28 April 2025

Version

: 2



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

1.1 Product identifier

Product name : AMERLOCK/SIGMACOVER 400 HARDENER

Product code : 000001194604

Other means of identification

00437439; 00466371 ; 00466891

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** : Hardener.

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

Supplier

+31 20 4075210

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

Skin Corr. 1B, H314

Eye Dam. 1, H318

Skin Sens. 1, H317

Carc. 2, H351

Repr. 2, H361fd

Aquatic Acute 1, H400

Aquatic Chronic 1, H410

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.

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SECTION 2: Hazards identification

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

2.2 Label elements

Hazard pictograms

:



Signal word

: Danger

Hazard statements

: Flammable liquid and vapor.
Causes severe skin burns and eye damage.
May cause an allergic skin reaction.
Suspected of causing cancer.
Suspected of damaging fertility. Suspected of damaging the unborn child.
Very 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 INHALED: Immediately call a POISON CENTER or doctor.

Storage

: Not applicable.

Disposal

: Dispose of contents and container in accordance with all local, regional, national and international regulations.
P280, P210, P273, P391, P304 + P310, P501

Hazardous ingredients

: 4-methylpentan-2-one; Polyaminoamide; benzyl alcohol; 3-aminomethyl-3,5,5-trimethylcyclohexylamine; 4-nonylphenol, branched; 4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, reaction products with 3-aminomethyl-3,5,5-trimethylcyclohexylamine and Amines, polyethylenepoly-, triethylenetetramine fraction

Supplemental label elements

: Not applicable.

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

: Not applicable.

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 according to Regulation (EC) No. 1907/2006, Annex XIII

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

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SECTION 2: Hazards identification

Other hazards which do not result in classification : Causes digestive tract burns. Prolonged or repeated contact may dry skin and cause irritation.

May cause endocrine disruption.

SECTION 3: Composition/information on ingredients

3.2 Mixtures : Mixture

Product/ingredient name	Identifiers	% by weight	Classification	Specific Conc. Limits, M-factors and ATEs	Type
4-methylpentan-2-one	REACH #: 01-2119473980-30 EC: 203-550-1 CAS: 108-10-1 Index: 606-004-00-4	≥10 - ≤16	Flam. Liq. 2, H225 Acute Tox. 4, H332 Eye Irrit. 2, H319 Carc. 2, H351 STOT SE 3, H336 EUH066	ATE [Inhalation (vapours)] = 11 mg/l	[1] [2]
Polyaminoamide	EC: Polymer CAS: 68082-29-1	≥5.0 - ≤10	Eye Dam. 1, H318	-	[1]
benzyl alcohol	REACH #: 01-2119492630-38 EC: 202-859-9 CAS: 100-51-6 Index: 603-057-00-5	≥1.0 - ≤5.0	Acute Tox. 4, H302 Eye Irrit. 2, H319 Skin Sens. 1B, H317	ATE [Oral] = 1200 mg/kg	[1]
cyclohexanone	REACH #: 01-2119453616-35 EC: 203-631-1 CAS: 108-94-1	≥1.0 - ≤5.0	Flam. Liq. 3, H226 Acute Tox. 4, H302 Acute Tox. 4, H312 Acute Tox. 4, H332 Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 3, H335	ATE [Oral] = 1800 mg/kg ATE [Dermal] = 1100 mg/kg ATE [Inhalation (gases)] = 8000 ppm	[1] [2]
3-aminomethyl-3,5,5-trimethylcyclohexylamine	REACH #: 01-2119514687-32 EC: 220-666-8 CAS: 2855-13-2 Index: 612-067-00-9	≥1.0 - ≤5.0	Acute Tox. 4, H302 Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1A, H317	ATE [Oral] = 1030 mg/kg Skin Sens. 1, H317: C ≥ 0.001%	[1]
4-nonylphenol, branched	REACH #: 01-2119510715-45 EC: 284-325-5 CAS: 84852-15-3 Index: 601-053-00-8	≥1.0 - ≤5.0	Acute Tox. 4, H302 Skin Corr. 1B, H314 Eye Dam. 1, H318 Repr. 2, H361fd Aquatic Acute 1, H400 Aquatic Chronic 1, H410	ATE [Oral] = 1300 mg/kg M [Acute] = 10 M [Chronic] = 10	[1] [3]
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, reaction products with 3-aminomethyl-3,5,5-trimethylcyclohexylamine	EC: 500-101-4 CAS: 38294-64-3	≥1.0 - ≤5.0	Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1A, H317 Aquatic Chronic 3, H412	-	[1]
2-methylpropan-1-ol	REACH #:	≥1.0 - ≤3.7	Flam. Liq. 3, H226	-	[1] [2]

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SECTION 3: Composition/information on ingredients

	01-2119484609-23 EC: 201-148-0 CAS: 78-83-1 Index: 603-108-00-1		Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 3, H335 STOT SE 3, H336		
2,4,6-tris (dimethylaminomethyl) phenol	REACH #: 01-2119560597-27 EC: 202-013-9 CAS: 90-72-2	≥1.0 - ≤5.0	Acute Tox. 4, H302 Acute Tox. 4, H312 Skin Corr. 1C, H314 Eye Dam. 1, H318	ATE [Oral] = 1200 mg/kg ATE [Dermal] = 1280 mg/kg	[1]
Fatty acids, tall-oil, reaction products with diethylenetriamine	EC: 263-160-2 CAS: 61790-69-0	<1.0	Acute Tox. 4, H302 Skin Corr. 1B, H314 Eye Dam. 1, H318 STOT RE 2, H373 (oral) Aquatic Acute 1, H400 Aquatic Chronic 1, H410	ATE [Oral] = 500 mg/kg M [Acute] = 1 M [Chronic] = 1	[1]
Amines, polyethylenepoly-, triethylenetetramine fraction	REACH #: 01-2119487919-13 EC: 292-588-2 CAS: 90640-67-8	<1.0	Acute Tox. 4, H302 Acute Tox. 4, H312 Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1, H317 Aquatic Chronic 3, H412	ATE [Oral] = 1716 mg/kg ATE [Dermal] = 1465 mg/kg	[1]
salicylic acid	REACH #: 01-2119486984-17 EC: 200-712-3 CAS: 69-72-7 Index: 607-732-00-5	≤0.30	Acute Tox. 4, H302 Eye Dam. 1, H318 Repr. 2, H361d See Section 16 for the full text of the H statements declared above.	ATE [Oral] = 891 mg/kg	[1]

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

Type
[1] Substance classified with a health or environmental hazard
[2] Substance with a workplace exposure limit
[3] Substance of equivalent concern - Endocrine disrupting properties
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
- Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Seek immediate medical attention.
- 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 recognized skin cleanser. Do NOT use solvents or thinners.

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SECTION 4: First aid measures

- Ingestion** : If swallowed, seek medical advice immediately and show this 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 damage.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : Causes severe burns. Defatting to the skin. May cause an allergic skin reaction.
- Ingestion** : Corrosive to the digestive tract. Causes burns.

Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:
pain
watering
redness
- Inhalation** : Adverse symptoms may include the following:
reduced fetal weight
increase in fetal deaths
skeletal malformations
- Skin contact** : Adverse symptoms may include the following:
pain or irritation
redness
dryness
cracking
blistering may occur
reduced fetal weight
increase in fetal deaths
skeletal malformations
- Ingestion** : Adverse symptoms may include the following:
stomach pains
reduced fetal weight
increase in fetal deaths
skeletal malformations

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** : 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

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SECTION 5: Firefighting measures

Hazards from the substance or mixture	: Flammable liquid and vapor. 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 very 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 nitrogen oxides halogenated compounds metal oxide/oxides
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.

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 spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
For emergency responders	: If specialized 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 spilled 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 materials 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 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 spilled product.

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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.
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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). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. 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 breathe vapor or mist. Do not ingest. 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.
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 oxidizing 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 unlabeled 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
4-methylpentan-2-one	EU OEL (Europe, 1/2022) TWA 8 hours: 20 ppm. TWA 8 hours: 83 mg/m³. STEL 15 minutes: 50 ppm. STEL 15 minutes: 208 mg/m³.
cyclohexanone	EU OEL (Europe, 1/2022) Absorbed through skin. TWA 8 hours: 10 ppm. TWA 8 hours: 40.8 mg/m³. STEL 15 minutes: 20 ppm. STEL 15 minutes: 81.6 mg/m³.
2-methylpropan-1-ol	ACGIH TLV (United States, 1/2024) TWA 8 hours: 50 ppm. TWA 8 hours: 152 mg/m³.

DNELs/DMELs

English (US)	Europe	8/21
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SECTION 8: Exposure controls/personal protection

cyclohexanone	DNEL - General population - Short term - Dermal	Effects: Systemic	1 mg/kg bw/day
	DNEL - General population - Long term - Dermal	Effects: Systemic	1 mg/kg bw/day
	DNEL - General population - Short term - Oral	Effects: Systemic	1.5 mg/kg bw/day
	DNEL - General population - Long term - Oral	Effects: Systemic	1.5 mg/kg bw/day
	DNEL - General population - Long term - Inhalation	Effects: Systemic	2.55 mg/m ³
	DNEL - Workers - Short term - Dermal	Effects: Systemic	4 mg/kg bw/day
	DNEL - Workers - Long term - Dermal	Effects: Systemic	4 mg/kg bw/day
	DNEL - General population - Short term - Inhalation	Effects: Systemic	5 mg/m ³
	DNEL - Workers - Long term - Inhalation	Effects: Local	10 mg/m ³
	DNEL - Workers - Long term - Inhalation	Effects: Systemic	10 mg/m ³
3-aminomethyl-3,5,5-trimethylcyclohexylamine	DNEL - Workers - Short term - Inhalation	Effects: Local	20 mg/m ³
	DNEL - Workers - Short term - Inhalation	Effects: Systemic	20 mg/m ³
	DNEL - Workers - Short term - Inhalation	Effects: Local	0.073 mg/m ³
	DNEL - Workers - Long term - Inhalation	Effects: Local	0.073 mg/m ³
4-nonylphenol, branched	DNEL - General population - Long term - Oral	Effects: Systemic	0.3 mg/kg bw/day
	DNEL - General population - Short term - Oral	Effects: Systemic	0.3 mg/kg bw/day
	DNEL - General population - Short term - Oral	Effects: Systemic	0.4 mg/kg bw/day
	DNEL - General population - Short term - Inhalation	Effects: Systemic	0.8 mg/m ³
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, reaction products with 3-aminomethyl-3,5,5-trimethylcyclohexylamine	DNEL - General population - Short term - Dermal	Effects: Systemic	7.6 mg/kg bw/day
	DNEL - General population - Long term - Oral	Effects: Systemic	0.08 mg/kg bw/day
	DNEL - General population - Long term - Inhalation	Effects: Systemic	0.4 mg/m ³
	DNEL - Workers - Long term - Inhalation	Effects: Systemic	0.5 mg/m ³
	DNEL - Workers - Short term - Inhalation	Effects: Systemic	1 mg/m ³
	DNEL - General population - Long term - Dermal	Effects: Systemic	3.8 mg/kg bw/day
	DNEL - Workers - Long term - Dermal	Effects: Systemic	7.5 mg/kg bw/day
	DNEL - Workers - Short term - Dermal	Effects: Systemic	15 mg/kg bw/day
	DNEL - General population - Long term - Oral	Effects: Systemic	50 µg/kg bw/day
	DNEL - General population - Long term - Inhalation	Effects: Systemic	74 µg/m ³
2-methylpropan-1-ol	DNEL - Workers - Long term - Dermal	Effects: Systemic	0.14 mg/kg bw/day
	DNEL - Workers - Long term - Inhalation	Effects: Systemic	0.493 mg/m ³
	DNEL - General population - Long term - Inhalation	Effects: Local	55 mg/m ³
	DNEL - Workers - Long term - Inhalation	Effects: Local	310 mg/m ³
2,4,6-tris(dimethylaminomethyl)phenol	DNEL - General population - Long term - Oral	Effects: Systemic	0.075 mg/kg bw/day
	DNEL - General population - Short term - Dermal	Effects: Systemic	0.075 mg/kg bw/day
	DNEL - General population - Long term - Dermal	Effects: Systemic	0.075 mg/kg bw/day
	DNEL - General population - Short term - Inhalation	Effects: Systemic	0.13 mg/m ³
	DNEL - General population - Long term - Inhalation	Effects: Systemic	0.13 mg/m ³

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Amines, polyethylenepoly-, triethylenetetramine fraction	DNEL - Workers - Long term - Dermal	Effects: Systemic	0.15 mg/kg bw/day
	DNEL - Workers - Long term - Inhalation	Effects: Systemic	0.53 mg/m³
	DNEL - Workers - Short term - Dermal	Effects: Systemic	0.6 mg/kg bw/day
	DNEL - Workers - Short term - Inhalation	Effects: Systemic	2.1 mg/m³
	DNEL - General population - Long term - Inhalation	Effects: Systemic	0.096 mg/m³
salicylic acid	DNEL - General population - Long term - Oral	Effects: Systemic	0.14 mg/kg bw/day
	DNEL - Workers - Long term - Inhalation	Effects: Systemic	0.54 mg/m³
	DNEL - Workers - Long term - Dermal	Effects: Systemic	2.3 mg/kg bw/day
	DNEL - General population - Long term - Oral	Effects: Systemic	1 mg/kg bw/day
	DNEL - General population - Long term - Dermal	Effects: Systemic	1 mg/kg bw/day
	DNEL - General population - Short term - Oral	Effects: Systemic	4 mg/kg bw/day
	DNEL - General population - Long term - Inhalation	Effects: Systemic	4 mg/m³
	DNEL - Workers - Long term - Inhalation	Effects: Local	5 mg/m³
	DNEL - Workers - Long term - Inhalation	Effects: Systemic	5 mg/m³

PNECs

Product/ingredient name	Compartment Detail - Method	Value
4-methylpentan-2-one 2-methylpropan-1-ol	Fresh water - Assessment Factors	0.6 mg/l
	Marine water - Assessment Factors	0.06 mg/l
	Sewage Treatment Plant - Assessment Factors	27.5 mg/l
	Fresh water sediment - Equilibrium Partitioning	8.27 mg/kg
	Marine water sediment - Equilibrium Partitioning	0.83 mg/kg
	Soil - Equilibrium Partitioning	1.3 mg/kg
	Fresh water - Assessment Factors	0.4 mg/l
	Marine water - Assessment Factors	0.04 mg/l
	Sewage Treatment Plant - Assessment Factors	10 mg/l
	Fresh water sediment - Equilibrium Partitioning	1.56 mg/kg dwt
	Marine water sediment	0.156 mg/kg dwt
	Soil - Equilibrium Partitioning	0.076 mg/kg dwt

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, vapor 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. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Chemical splash goggles and face shield. Use eye protection according to EN 166.

Skin protection

Hand protection :

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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	: butyl rubber
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	: 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 vapor (Type A) and particulate filter P3
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

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

9.1 Information on basic physical and chemical properties

Appearance	
Physical state	: Liquid.
Color	: Clear.
Odor	: Amine-like. [Strong]
Melting point/freezing point	: Not determined.
Boiling point or initial boiling point and boiling range	: >37.78°C
Flammability	: Not determined. There are no data available on the mixture itself.
Lower and upper explosion limit	: Not available.
Flash point	: Closed cup: 37°C
Auto-ignition temperature	:

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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.

- Causes severe skin burns and eye damage.
- May cause an allergic skin reaction.
- Suspected of damaging fertility. Suspected of damaging the unborn child.
- Suspected of causing cancer.

Acute toxicity

Product/ingredient name	Result	Dose / Exposure
4-methylpentan-2-one	Rat - Oral - LD50	2.08 g/kg
	Rabbit - Dermal - LD50	>5000 mg/kg
	Rat - Inhalation - LC50 Vapor	11 mg/l [4 hours]
benzyl alcohol	Rabbit - Dermal - LD50	>2000 mg/kg
	Rat - Oral - LD50	1200 mg/kg
cyclohexanone	Rat - Inhalation - LC50 Dusts and mists	>5 mg/l [4 hours]
	Rat - Oral - LD50	1800 mg/kg
	Rabbit - Dermal - LD50	1100 mg/kg
	Rat - Inhalation - LC50 Gas.	8000 ppm [4 hours]
3-aminomethyl-3,5,5-trimethylcyclohexylamine	Rat - Oral - LD50	1030 mg/kg
	Rat - Dermal - LD50	>2000 mg/kg
	Rat - Inhalation - LC50 Dusts and mists	>5.01 mg/l [4 hours]
4-nonylphenol, branched	Rabbit - Dermal - LD50	2.14 g/kg
	Rat - Oral - LD50	1300 mg/kg
	<i>Toxic effects:</i> Liver - Other changes Blood - Hemorrhage Gross Metabolite Changes - Weight loss or decreased weight gain	
2-methylpropan-1-ol	Rat - Oral - LD50	2830 mg/kg
	Rabbit - Dermal - LD50	2460 mg/kg
	Rat - Inhalation - LC50 Vapor	24.6 mg/l [4 hours]
2,4,6-tris(dimethylaminomethyl) phenol	Rat - Dermal - LD50	1280 mg/kg
	Rat - Oral - LD50	1200 mg/kg
	<i>Toxic effects:</i> Peripheral Nerve and Sensation - Flaccid paralysis without anesthesia (usually neuromuscular blockage) Lung, Thorax, or Respiration - Dyspnea	
Amines, polyethylenepoly-, triethylenetetramine fraction	Rat - Oral - LD50	1716 mg/kg
	Rabbit - Dermal - LD50	1465 mg/kg
salicylic acid	Rat - Oral - LD50	0.891 g/kg

Acute toxicity estimates

Route	ATE value
Oral	6944.03 mg/kg
Dermal	19443.7 mg/kg
Inhalation (gases)	186420.14 ppm
Inhalation (vapors)	107 mg/l

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

Irritation/Corrosion

Product/ingredient name	Result
4-nonylphenol, branched	Rabbit - Skin - Erythema/Eschar Irritation score: 4

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Conclusion/Summary

Skin : Causes severe burns.

Eyes : Causes serious eye damage.

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

Respiratory or skin sensitization

Product/ingredient name	Test	Result
3-aminomethyl-3,5,5-trimethylcyclohexylamine	Guinea pig - skin OECD 406	Result: Sensitizing

Conclusion/Summary

Skin : May cause an allergic skin reaction.

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

Mutagenicity

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

Carcinogenicity

Suspected of causing cancer.

Reproductive toxicity

Suspected of damaging fertility. Suspected of damaging the unborn child.

Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
4-methylpentan-2-one	Category 3	-	Narcotic effects
cyclohexanone	Category 3	-	Respiratory tract irritation
2-methylpropan-1-ol	Category 3	-	Respiratory tract irritation
-	Category 3	-	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
Fatty acids, tall-oil, reaction products with diethylenetriamine	Category 2	oral	-

Conclusion/Summary :

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

Aspiration hazard

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

Information on the likely routes of exposure : Not available.

Potential acute health effects

Inhalation : No known significant effects or critical hazards.

Ingestion : Corrosive to the digestive tract. Causes burns.

Skin contact : Causes severe burns. Defatting to the skin. May cause an allergic skin reaction.

Eye contact : Causes serious eye damage.

Symptoms related to the physical, chemical and toxicological characteristics

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Inhalation	: Adverse symptoms may include the following: reduced fetal weight increase in fetal deaths skeletal malformations
Ingestion	: Adverse symptoms may include the following: stomach pains reduced fetal weight increase in fetal deaths skeletal malformations
Skin contact	: Adverse symptoms may include the following: pain or irritation redness dryness cracking blistering may occur reduced fetal weight increase in fetal deaths skeletal malformations
Eye contact	: Adverse symptoms may include the following: pain watering redness

Delayed and immediate effects and also chronic effects from short and long term exposure

<u>Short term exposure</u>	
Potential immediate effects	: No known significant effects or critical hazards.
Potential delayed effects	: No known significant effects or critical hazards.
<u>Long term exposure</u>	
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. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
Carcinogenicity	: Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.
Mutagenicity	: No known significant effects or critical hazards.
Reproductive toxicity	: Suspected of damaging fertility. Suspected of damaging the unborn child.
Other information	: ☒ Causes digestive tract burns. Prolonged or repeated contact may dry skin and cause irritation. Repeated exposure to high vapor concentrations may cause irritation of the respiratory system and permanent brain and nervous system damage. Inhalation of vapor/aerosol concentrations above the recommended exposure limits causes headaches, drowsiness and nausea and may lead to unconsciousness or death. Avoid contact with skin and clothing.

11.2 Information on other hazards

11.2.1 Endocrine disrupting properties

☒ The product does not meet the criteria to be considered as having endocrine disrupting properties according to the criteria set out in either Regulation (EC) No. 1907/2006 or Regulation (EC) No 1272/2008.

11.2.2 Other information

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Not available.

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	Dose / Exposure
4-methylpentan-2-one 4-nonylphenol, branched	Acute - LC50	Fish	>179 mg/l [96 hours]
	Acute - LC50	Fish	0.221 mg/l [96 hours]
	Acute - EC50	Crustaceans - Water flea - <i>Moina macrocopa</i>	0.044 mg/l [48 hours]
2-methylpropan-1-ol 2,4,6-tris (dimethylaminomethyl)phenol	Acute - EC50	Algae - Green algae - <i>Raphidocelis subcapitata</i>	0.04 mg/l [72 hours]
	Acute - EC50	Daphnia	1100 mg/l [48 hours]
	Acute - LC50	Daphnia	>100 mg/l [48 hours]
Amines, polyethylenepoly-, triethylenetetramine fraction	Acute - LC50	Fish	>100 mg/l [96 hours]
	Acute - LC50	Fish - <i>Pimephales promelas</i>	330 mg/l [96 hours]
	Acute - EC50	Daphnia - <i>Daphnia magna</i>	31.1 mg/l [48 hours]
salicylic acid	Acute - EC50	Aquatic plants - <i>Daphnia magna</i>	20 mg/l [72 hours]
	Acute - NOEC	Crustaceans	2.5 mg/l [72 hours]
	Acute - EC50 - Fresh water	Daphnia - Water flea - <i>Daphnia longispina</i> - Neonate	1147.57 mg/l [48 hours]
	Chronic - NOEC - Fresh water	Daphnia - Water flea - <i>Daphnia magna</i> - Neonate	5.6 mg/l [21 days]

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

12.2 Persistence and degradability

Product/ingredient name	Test	Result	Dose / Inoculum
4-methylpentan-2-one 2,4,6-tris (dimethylaminomethyl)phenol	OECD 301F OECD [Ready Biodegradability - Closed Bottle Test]	83% [28 days] - Readily 4% [28 days] - Not readily	

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
4-methylpentan-2-one	-	-	Readily
benzyl alcohol	-	-	Readily
2,4,6-tris (dimethylaminomethyl)phenol	-	-	Not readily

12.3 Bioaccumulative potential

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Product/ingredient name	LogP _{ow}	BCF	Potential
4-methylpentan-2-one	1.9	-	Low
benzyl alcohol	0.87	-	Low
cyclohexanone	0.86	-	Low
3-aminomethyl-3,5,5-trimethylcyclohexylamine	0.99	-	Low
4-nonylphenol, branched	5.4	251.19	Low
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, reaction products with 3-aminomethyl-3,5,5-trimethylcyclohexylamine	-	5.13	Low
2-methylpropan-1-ol	1	-	Low
2,4,6-tris(dimethylaminomethyl)phenol	0.219	-	Low
Amines, polyethylenepoly-, triethylenetetramine fraction	-2.65	-	Low
salicylic acid	2.21 to 2.26	-	Low

12.4 Mobility in soil

Soil/Water partition coefficient

Product/ingredient name	logK _{oc}	K _{oc}
4-methylpentan-2-one	1.61	40.9047
benzyl alcohol	1.1	12.6442
cyclohexanone	1.8	63.2873
3-aminomethyl-3,5,5-trimethylcyclohexylamine	1.99	98.3852
2-methylpropan-1-ol	1.08	12.0246
2,4,6-tris(dimethylaminomethyl)phenol	2.72	525.589
salicylic acid	1.58	37.6361

12.5 Results of PBT and vPvB assessment

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

12.6 Endocrine disrupting properties

May cause endocrine disruption.

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 minimized 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.

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SECTION 13: Disposal considerations

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 minimized 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. Vapor 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 spilled 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	 UN3470	 UN3470	 UN3470	 UN3470
14.2 UN proper shipping name	 PAINT, CORROSIVE, FLAMMABLE	 PAINT, CORROSIVE, FLAMMABLE	 PAINT, CORROSIVE, FLAMMABLE	 PAINT, CORROSIVE, FLAMMABLE
14.3 Transport hazard class(es)	8 (3)	8 (3)	8 (3)	8 (3)
14.4 Packing group	II	II	II	II
14.5 Environmental hazards	Yes.	Yes.	Yes.	Yes. The environmentally hazardous substance mark is not required.
Marine pollutant substances	Not applicable.	Not applicable.	(4-nonylphenol, branched)	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.
	:

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SECTION 16: Other information

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

Full text of abbreviated H statements

H225	Highly flammable liquid and vapor.
H226	Flammable liquid and vapor.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
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.
H351	Suspected of causing cancer.
H361d	Suspected of damaging the unborn child.
H361fd	Suspected of damaging fertility. Suspected of damaging the unborn child.
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.
H412	Harmful to aquatic life with long lasting effects.
EUH066	Repeated exposure may cause skin dryness or cracking.

Full text of classifications [CLP/GHS]

Acute Tox. 4	ACUTE TOXICITY - Category 4
Aquatic Acute 1	AQUATIC HAZARD (ACUTE) - Category 1
Aquatic Chronic 1	AQUATIC HAZARD (LONG-TERM) - Category 1
Aquatic Chronic 3	AQUATIC HAZARD (LONG-TERM) - Category 3
Carc. 2	CARCINOGENICITY - Category 2
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. 2	TOXIC TO REPRODUCTION - Category 2
Skin Corr. 1B	SKIN CORROSION/IRRITATION - Category 1B
Skin Corr. 1C	SKIN CORROSION/IRRITATION - Category 1C
Skin Irrit. 2	SKIN CORROSION/IRRITATION - Category 2
Skin Sens. 1	SKIN SENSITIZATION - Category 1
Skin Sens. 1A	SKIN SENSITIZATION - Category 1A
Skin Sens. 1B	SKIN SENSITIZATION - Category 1B
STOT RE 2	SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
STOT SE 3	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 3

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SECTION 16: Other information			

History

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Disclaimer

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