

# SAFETY DATA SHEET

Date of issue/Date of revision

: 13 December 2021

Version

: 10.01



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

### 1.1 Product identifier

Product name : NOVAGUARD 4801 CATALYST

Product code : 00346208

#### Other means of identification

Not available.

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

Product use : Professional applications, Used by spraying.

Use of the substance/  
mixture : Coating.

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

### 1.3 Details of the supplier of the safety data sheet

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

e-mail address of person  
responsible for this SDS :  Product.Stewardship.EMEA@ppg.com

#### National contact

PPG Architectural Coatings UK Ltd, Huddersfield Road, Birstall, West Yorkshire WF17 9XA, Tel: +44 (0) 1924 354000

### 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]

Org. Perox. D, H242  
Acute Tox. 4, H302  
Acute Tox. 4, H332  
Skin Corr. 1B, H314  
Eye Dam. 1, H318  
Skin Sens. 1, H317  
STOT SE 3, H335

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## SECTION 2: Hazards identification

STOT RE 2, H373

Aquatic Chronic 3, H412

The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.

See Section 16 for the full text of the H statements declared above.

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

### 2.2 Label elements

**Hazard pictograms**



**Signal word**

: Danger

**Hazard statements**

: Heating may cause a fire.  
Harmful if swallowed or if inhaled.  
Causes severe skin burns and eye damage.  
May cause an allergic skin reaction.  
May cause respiratory irritation.  
May cause damage to organs through prolonged or repeated exposure.  
Harmful 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. Keep only in original packaging. Do not breathe vapour.

**Response**

: IF INHALED: Immediately call a POISON CENTER or doctor.

**Storage**

: Store in a well-ventilated place.

**Disposal**

: Not applicable.  
P280, P210, P234, P260, P304 + P310, P403

**Hazardous ingredients**

:  $\alpha$ ,  $\alpha$ -dimethylbenzyl hydroperoxide  
2-Butanone, peroxide  
tert-butyl perbenzoate

**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**

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

**Other hazards which do not result in classification**

: Temperature control may be required. Hazardous decomposition may occur. Prolonged or repeated contact may dry skin and cause irritation.

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

: Mixture

Product/ingredient name	Identifiers	% by weight	Classification Regulation (EC) No. 1272/2008 [CLP]	Type
di-"isononyl" phthalate	REACH #: 01-2119430798-28 EC: 249-079-5 CAS: 28553-12-0	≥25 - ≤50	Not classified.	[2]
α, α-dimethylbenzyl hydroperoxide	REACH #: 01-2119475796-19 EC: 201-254-7 CAS: 80-15-9 Index: 617-002-00-8	≥10 - ≤21	Org. Perox. E, H242 Acute Tox. 4, H302 Acute Tox. 4, H312 Acute Tox. 3, H331 Skin Corr. 1B, H314 Eye Dam. 1, H318 STOT SE 3, H335 STOT RE 2, H373 Aquatic Chronic 2, H411	[1]
2-Butanone, peroxide	EC: 215-661-2 CAS: 1338-23-4	≥10 - ≤25	Org. Perox. D, H242 Acute Tox. 4, H302 Skin Corr. 1B, H314 Eye Dam. 1, H318	[1] [2]
tert-butyl perbenzoate	REACH #: 01-2119513317-46 EC: 210-382-2 CAS: 614-45-9	≥5.0 - ≤10	Org. Perox. C, H242 Acute Tox. 4, H332 Skin Irrit. 2, H315 Skin Sens. 1, H317 Aquatic Acute 1, H400 (M=1)	[1]
cumene	REACH #: 01-2119473983-24 EC: 202-704-5 CAS: 98-82-8 Index: 601-024-00-X	≥1.0 - ≤3.5	Flam. Liq. 3, H226 STOT SE 3, H335 Asp. Tox. 1, H304 Aquatic Chronic 2, H411  <b>See Section 16 for the full text of the H statements declared above.</b>	[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, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

Type

[1] Substance classified with a health or environmental hazard

[2] Substance with a workplace exposure limit

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

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

[5] Substance of equivalent concern

[6] Additional disclosure due to company policy

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

**SUB codes represent substances without registered CAS Numbers.**

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## SECTION 4: First aid measures

### 4.1 Description of first aid measures

- |                                   |   |
|-----------------------------------|---|
| <b>Eye contact</b>                | : 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.   |
| <b>Inhalation</b>                 | : 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.  |
| <b>Skin contact</b>               | : Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognised skin cleanser. Do NOT use solvents or thinners.  |
| <b>Ingestion</b>                  | : If swallowed, seek medical advice immediately and show the container or label. Keep person warm and at rest. Do NOT induce vomiting.  |
| <b>Protection of first-aiders</b> | : 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

- |                     |  |
|---------------------|--|
| <b>Eye contact</b>  | : Causes serious eye damage.   |
| <b>Inhalation</b>   | : Harmful if inhaled. May cause respiratory irritation.                            |
| <b>Skin contact</b> | : Causes severe burns. Defatting to the skin. May cause an allergic skin reaction. |
| <b>Ingestion</b>    | : Harmful if swallowed.  |

#### Over-exposure signs/symptoms

- |                     |   |
|---------------------|---|
| <b>Eye contact</b>  | : Adverse symptoms may include the following:<br>pain<br>watering<br>redness  |
| <b>Inhalation</b>   | : Adverse symptoms may include the following:<br>respiratory tract irritation<br>coughing                                     |
| <b>Skin contact</b> | : Adverse symptoms may include the following:<br>pain or irritation<br>redness<br>dryness<br>cracking<br>blistering may occur |
| <b>Ingestion</b>    | : Adverse symptoms may include the following:<br>stomach pains  |

### 4.3 Indication of any immediate medical attention and special treatment needed

- |                            |   |
|----------------------------|---|
| <b>Notes to physician</b>  | : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. |
| <b>Specific treatments</b> | : No specific treatment.  |

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## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

- Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.
- Unsuitable extinguishing media** : None known.

### 5.2 Special hazards arising from the substance or mixture

- Hazards from the substance or mixture** : Runoff to sewer may create fire or explosion hazard. This material increases the risk of fire and may aid combustion. Heating may cause a fire. May re-ignite itself after fire is extinguished. Hazardous decomposition may occur. In a fire or if heated, a pressure increase will occur and the container may burst. 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 combustion products** : Decomposition products may include the following materials: carbon 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.
- 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. Do not breathe 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. Avoid contamination with reactive substances. Dilute with water and mop up if water-soluble. Do not absorb in sawdust or other combustible material. It may lead to a fire risk when it dries out. 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.

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## SECTION 6: Accidental release measures

- 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. Avoid contamination with reactive substances. Do not absorb in sawdust or other combustible material. It may lead to a fire risk when it dries out. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product.
- 6.4 Reference to other sections** : See Section 1 for emergency contact information.  
See Section 8 for information on appropriate personal protective equipment.  
See Section 13 for additional waste treatment information.

## SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. 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. Do not get in eyes or on skin or clothing. Do not breathe vapour 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. Keep away from clothing, incompatible materials and combustible materials. Temperature control may be required. 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

- : To avoid the risk of formation of shock-sensitive crystals or loss of stability, it is important to store the product within the recommended temperature range. Temperature control may be required. 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 at temperatures not exceeding 20°C/68°F. Store locked up. Eliminate all ignition sources. Separate from reducing agents and combustible materials. Keep away from rust, iron and copper. Keep container tightly closed and sealed until ready for use. Prevent product contamination. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

### 7.3 Specific end use(s)

See Section 1.2 for Identified uses.

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**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
di-"isononyl" phthalate	<b>EH40/2005 WELs (United Kingdom (UK), 1/2020).</b> TWA: 5 mg/m <sup>3</sup> 8 hours.
2-Butanone, peroxide	<b>EH40/2005 WELs (United Kingdom (UK), 1/2020).</b> STEL: 1.5 mg/m <sup>3</sup> 15 minutes. STEL: 0.2 ppm 15 minutes.
cumene	<b>EH40/2005 WELs (United Kingdom (UK), 1/2020). Absorbed through skin.</b> STEL: 250 mg/m <sup>3</sup> 15 minutes. STEL: 50 ppm 15 minutes. TWA: 125 mg/m <sup>3</sup> 8 hours. TWA: 25 ppm 8 hours.

**Recommended monitoring procedures** : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

**DNELs**

Product/ingredient name	Type	Exposure	Value	Population	Effects
α, α-dimethylbenzyl hydroperoxide	DNEL	Long term Inhalation	6 mg/m <sup>3</sup>	Workers	Systemic
2-Butanone, peroxide	DNEL	Long term Oral	0.33 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	0.5 mg/m <sup>3</sup>	General population	Systemic
	DNEL	Long term Dermal	0.67 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	1.33 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	2.35 mg/m <sup>3</sup>	Workers	Systemic
	DNEL	Short term Inhalation	7.05 mg/m <sup>3</sup>	Workers	Systemic
tert-butyl perbenzoate	DNEL	Long term Inhalation	4 mg/m <sup>3</sup>	Workers	Systemic
	DNEL	Long term Dermal	6.25 mg/kg bw/day	Workers	Systemic
cumene	DNEL	Long term Dermal	1.2 mg/kg bw/day	General population	Systemic
	DNEL	Long term Oral	5 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	15.4 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	16.6 mg/m <sup>3</sup>	General population	Systemic
	DNEL	Long term Inhalation	100 mg/m <sup>3</sup>	Workers	Systemic
	DNEL	Short term Inhalation	250 mg/m <sup>3</sup>	Workers	Local

**PNECs**



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**SECTION 8: Exposure controls/personal protection**

Product/ingredient name	Type	Compartment Detail	Value	Method Detail
α, α-dimethylbenzyl hydroperoxide  cumene	-	Fresh water	0.003 mg/l	Assessment Factors
	-	Sewage Treatment Plant	0.35 mg/l	Assessment Factors
	-	Fresh water sediment	0.023 mg/kg dwt	Equilibrium Partitioning
	-	Marine water sediment	0.002 mg/kg dwt	Equilibrium Partitioning
	-	Soil	0.003 mg/kg dwt	Equilibrium Partitioning
	-	Fresh water	0.035 mg/l	Assessment Factors
	-	Marine water	0.004 mg/l	Assessment Factors
	-	Sewage Treatment Plant	200 mg/l	Assessment Factors
	-	Fresh water sediment	3.22 mg/kg dwt	Equilibrium Partitioning
	-	Marine water sediment	0.322 mg/kg dwt	Equilibrium Partitioning
	-	Soil	0.624 mg/kg dwt	Equilibrium Partitioning

**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. Use with adequate ventilation.

**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**

: 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.

**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.



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SECTION 8: Exposure controls/personal protection

Respiratory protection	: Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. If workers are exposed to concentrations above the exposure limit, they must use appropriate, certified respirators. Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Wear a respirator conforming to EN140. Filter type: organic vapour (Type A) and particulate filter P3
Environmental exposure 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

<b>Appearance</b>																					
Physical state	: Liquid.																				
Colour	: Clear.																				
Odour	: Not available.																				
Odour threshold	: Not available.																				
pH	: Not applicable. insoluble in water.																				
Melting point/freezing point	: May start to solidify at the following temperature: 9 to 11°C (48.2 to 51.8°F) This is based on data for the following ingredient: tert-butyl perbenzoate. Weighted average: -39.74°C (-39.5°F)																				
Initial boiling point and boiling range	: >37.78°C																				
Flash point	: Closed cup: Not applicable.																				
Evaporation rate	: 0.43 (cumene) compared with butyl acetate																				
Flammability (solid, gas)	: liquid																				
Upper/lower flammability or explosive limits	: Greatest known range: Lower: 1% Upper: 54% (ethyl acetoacetate)																				
Vapour pressure	: <table><tr><th rowspan="2">Ingredient name</th><th colspan="3">Vapour Pressure at 20°C</th><th colspan="3">Vapour pressure at 50°C</th></tr><tr><th>mm Hg</th><th>kPa</th><th>Method</th><th>mm Hg</th><th>kPa</th><th>Method</th></tr><tr><td> cumene</td><td>3.72</td><td>0.5</td><td></td><td></td><td></td><td></td></tr></table>	Ingredient name	Vapour Pressure at 20°C			Vapour pressure at 50°C			mm Hg	kPa	Method	mm Hg	kPa	Method	 cumene	3.72	0.5				
Ingredient name	Vapour Pressure at 20°C			Vapour pressure at 50°C																	
	mm Hg	kPa	Method	mm Hg	kPa	Method															
 cumene	3.72	0.5																			
Vapour density	: Highest known value: 5.4 (Air = 1) (α,α-dimethylbenzyl hydroperoxide). Weighted average: 4.84 (Air = 1)																				
Relative density	: 1.05																				
Solubility(ies)	: Insoluble in the following materials: cold water.																				
Partition coefficient: n-octanol/ water	: Not applicable.																				
Auto-ignition temperature	: <table><tr><th>Ingredient name</th><th>°C</th><th>°F</th><th>Method</th></tr><tr><td> tert-butyl perbenzoate</td><td>93</td><td>199.4</td><td></td></tr></table>	Ingredient name	°C	°F	Method	 tert-butyl perbenzoate	93	199.4													
Ingredient name	°C	°F	Method																		
 tert-butyl perbenzoate	93	199.4																			
Decomposition temperature	: Stable under recommended storage and handling conditions (see Section 7).																				
Viscosity	: Kinematic (40°C): >21 mm²/s																				
Explosive properties	:																				

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**SECTION 9: Physical and chemical properties**

The product itself is not explosive, but the formation of an explosible mixture of vapour or dust with air is possible.

**Oxidising properties** : Not available.

**9.2 Other information**

No additional information.

**SECTION 10: Stability and reactivity**

**10.1 Reactivity** : This product, in laboratory testing, either detonates partially, deflagrates slowly or shows a medium effect when heated under confinement.

**10.2 Chemical stability** : The product is stable.

**10.3 Possibility of hazardous reactions** : Hazardous reactions or instability may occur under certain conditions of storage or use. Conditions may include the following:  
temperature increase  
high temperature  
Reactions may include the following:  
hazardous decomposition  
risk of causing fire

**10.4 Conditions to avoid** : When exposed to high temperatures may produce hazardous decomposition products. Refer to protective measures listed in sections 7 and 8.

**10.5 Incompatible materials** : Keep away from the following materials to prevent strong exothermic reactions: oxidising agents, strong alkalis, strong acids.

**10.6 Hazardous decomposition products** : Depending on conditions, decomposition products may include the following materials: carbon oxides

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

Product/ingredient name	Result	Species	Dose	Exposure
α, α-dimethylbenzyl hydroperoxide	LC50 Inhalation Dusts and mists	Rat	1.37 mg/l	4 hours
	LD50 Dermal	Rat	1200 to 1520 mg/kg	-
	LD50 Oral	Rat	382 mg/kg	-
2-Butanone, peroxide	LC50 Inhalation Gas.	Rat	200 ppm	4 hours
	LC50 Inhalation Vapour	Rat	1440 mg/m <sup>3</sup>	4 hours
	LD50 Oral	Rat	470 mg/kg	-
tert-butyl perbenzoate cumene	LD50 Oral	Rat	1012 mg/kg	-
	LC50 Inhalation Vapour	Rat	39000 mg/m <sup>3</sup>	4 hours
	LD50 Dermal	Rabbit	12.3 g/kg	-
	LD50 Oral	Rat	1400 mg/kg	-

**Conclusion/Summary** : There are no data available on the mixture itself.

Acute toxicity estimates

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**SECTION 11: Toxicological information**

Route	ATE value
Oral	1265.26 mg/kg
Dermal	6111.11 mg/kg
Inhalation (dusts and mists)	2.42 mg/l

**Irritation/Corrosion**

Product/ingredient name	Result	Species	Score	Exposure	Observation
$\alpha$ , $\alpha$ -dimethylbenzyl hydroperoxide	Skin - Visible necrosis	Rabbit	-	24 hours	24 hours

**Conclusion/Summary****Skin** : There are no data available on the mixture itself.**Eyes** : There are no data available on the mixture itself.**Respiratory** : There are no data available on the mixture itself.**Sensitisation****Conclusion/Summary****Skin** : There are no data available on the mixture itself.**Respiratory** : There are no data available on the mixture itself.**Mutagenicity****Conclusion/Summary** : There are no data available on the mixture itself.**Carcinogenicity****Conclusion/Summary** : There are no data available on the mixture itself.**Reproductive toxicity****Conclusion/Summary** : There are no data available on the mixture itself.**Teratogenicity****Conclusion/Summary** : There are no data available on the mixture itself.**Specific target organ toxicity (single exposure)**

Product/ingredient name	Category	Route of exposure	Target organs
$\alpha$ , $\alpha$ -dimethylbenzyl hydroperoxide	Category 3	-	Respiratory tract irritation
cumene	Category 3	-	Respiratory tract irritation

**Specific target organ toxicity (repeated exposure)**

Product/ingredient name	Category	Route of exposure	Target organs
$\alpha$ , $\alpha$ -dimethylbenzyl hydroperoxide	Category 2	-	-

**Aspiration hazard**

Product/ingredient name	Result
cumene	ASPIRATION HAZARD - Category 1

**Information on likely routes of exposure** : Not available.**Potential acute health effects****Inhalation** : Harmful if inhaled. May cause respiratory irritation.**Ingestion** : Harmful if swallowed.**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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**SECTION 11: Toxicological information**

**Inhalation** : Adverse symptoms may include the following:  
respiratory tract irritation  
coughing

**Ingestion** : Adverse symptoms may include the following:  
stomach pains

**Skin contact** : Adverse symptoms may include the following:  
pain or irritation  
redness  
dryness  
cracking  
blistering may occur

**Eye contact** : Adverse symptoms may include the following:  
pain  
watering  
redness

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

**Potential immediate effects** : Not available.

**Potential delayed effects** : Not available.

**Long term exposure**

**Potential immediate effects** : Not available.

**Potential delayed effects** : Not available.

**Potential chronic health effects**

Not available.

**Conclusion/Summary** : Not available.

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

**Mutagenicity** : No known significant effects or critical hazards.

**Reproductive toxicity** : No known significant effects or critical hazards.

**Other information** : Not available.

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 vapour/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.

**SECTION 12: Ecological information****12.1 Toxicity**

Product/ingredient name	Result	Species	Exposure
α, α-dimethylbenzyl hydroperoxide	Acute EC50 3.1 mg/l	Algae	72 hours
	Acute LC50 23.4 mg/l Fresh water	Fish - Danio rerio - Embryo	96 hours
	Chronic NOEC 1 mg/l	Algae	72 hours

**Conclusion/Summary** : There are no data available on the mixture itself.

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**SECTION 12: Ecological information****12.2 Persistence and degradability****Conclusion/Summary** : There are no data available on the mixture itself.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
$\alpha$ , $\alpha$ -dimethylbenzyl hydroperoxide	-	-	Not readily

**12.3 Bioaccumulative potential**

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
$\alpha$ , $\alpha$ -dimethylbenzyl hydroperoxide	1.6	-	low
2-Butanone, peroxide	<0.3	-	low
tert-butyl perbenzoate	3	-	low
cumene	3.55	35.48	low

**12.4 Mobility in soil****Soil/water partition coefficient (K<sub>oc</sub>)** : Not available.**Mobility** : Not available.**12.5 Results of PBT and vPvB assessment**

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

**12.6 Other adverse effects** : No known significant effects or critical hazards.**SECTION 13: Disposal considerations**

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

**13.1 Waste treatment methods****Product**

**Methods of disposal** : The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

**Hazardous waste** : Yes.**European waste catalogue (EWC)**

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

**Packaging**

**Methods of disposal** : The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

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

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**SECTION 13: Disposal considerations**

**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. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

**14. Transport information**

	<b>ADR/RID</b>	<b>ADN</b>	<b>IMDG</b>	<b>IATA</b>
<b>14.1 UN number</b>	UN3105	UN3105	UN3105	UN3105
<b>14.2 UN proper shipping name</b>	ORGANIC PEROXIDE TYPE D, LIQUID (Cumene hydroperoxide, 2-Butanone, peroxide)	ORGANIC PEROXIDE TYPE D, LIQUID (Cumene hydroperoxide, 2-Butanone, peroxide)	ORGANIC PEROXIDE TYPE D, LIQUID (Cumene hydroperoxide, 2-Butanone, peroxide)	ORGANIC PEROXIDE TYPE D, LIQUID (Cumene hydroperoxide, 2-Butanone, peroxide)
<b>14.3 Transport hazard class(es)</b>	5.2	5.2	5.2	5.2
<b>14.4 Packing group</b>	-	-	-	-
<b>14.5 Environmental hazards</b>	No.	Yes.	No.	No.
<b>Marine pollutant substances</b>	Not applicable.	Not applicable.	Not applicable.	Not applicable.

**Additional information****ADR/RID** : None identified.**ADN** : The product is only regulated as an environmentally hazardous substance when transported in tank vessels.**IMDG** : None identified.**IATA** : None identified.

**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 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 authorisationAnnex XIV

None of the components are listed.

Substances of very high concern

None of the components are listed.

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**SECTION 15: Regulatory information**

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

**Ozone depleting substances (1005/2009/EU)**

Not listed.

**Seveso Directive**

This product is controlled under the Seveso Directive.

**Danger criteria****Category**

P6b

**15.2 Chemical safety assessment** : No Chemical Safety Assessment has been carried out.

**SECTION 16: Other information**

 Indicates information that has changed from previously issued version.

**Abbreviations and acronyms**

ATE = Acute Toxicity Estimate

CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]

DNEL = Derived No Effect Level

EUH statement = CLP-specific Hazard statement

PNEC = Predicted No Effect Concentration

RRN = REACH Registration Number

PBT = Persistent, Bioaccumulative and Toxic

vPvB = Very Persistent and Very Bioaccumulative

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

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

IMDG = International Maritime Dangerous Goods

IATA = International Air Transport Association

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

Classification	Justification
Org. Perox. D, H242	Expert judgment
Acute Tox. 4, H302	Calculation method
Acute Tox. 4, H332	Calculation method
Skin Corr. 1B, H314	Calculation method
Eye Dam. 1, H318	Calculation method
Skin Sens. 1, H317	Calculation method
STOT SE 3, H335	Calculation method
STOT RE 2, H373	Calculation method
Aquatic Chronic 3, H412	Calculation method

**Full text of abbreviated H statements**



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**SECTION 16: Other information**

H226	Flammable liquid and vapour.
H242	Heating may cause a fire.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
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.
H331	Toxic if inhaled.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

**Full text of classifications [CLP/GHS]**

Acute Tox. 3	ACUTE TOXICITY - Category 3
Acute Tox. 4	ACUTE TOXICITY - Category 4
Aquatic Acute 1	SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 1
Aquatic Chronic 2	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2
Aquatic Chronic 3	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3
Asp. Tox. 1	ASPIRATION HAZARD - Category 1
Eye Dam. 1	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1
Flam. Liq. 3	FLAMMABLE LIQUIDS - Category 3
Org. Perox. C	ORGANIC PEROXIDES - Type C
Org. Perox. D	ORGANIC PEROXIDES - Type D
Org. Perox. E	ORGANIC PEROXIDES - Type E
Skin Corr. 1B	SKIN CORROSION/IRRITATION - Category 1B
Skin Irrit. 2	SKIN CORROSION/IRRITATION - Category 2
Skin Sens. 1	SKIN SENSITISATION - Category 1
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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**Disclaimer**

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