

SAFETY DATA SHEET

NOVAGUARD 4801 CATALYST



Date of issue 20 March 2020

Version 8

1. Product and company identification

Product name : NOVAGUARD 4801 CATALYST

Product code : 00346208 Product type : Liquid.

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 : Not applicable.

Supplier's details: PPG PMC Japan Co., Ltd.

8F, Shintetsu Bldg., 1-1, Daikaidori 1-chome, Kobe 652-0803

Tel: +81 78 574 2777 Fax: +81 78 576 0035

Emergency telephone

number

: 078 574 2777

2. Hazards identification

GHS Classification : ØRGANIC PEROXIDES - Type D

ACUTE TOXICITY (oral) - Category 4 ACUTE TOXICITY (dermal) - Category 4 ACUTE TOXICITY (inhalation) - Category 3

SKIN CORROSION - Category 1
SERIOUS EYE DAMAGE - Category 1
CARCINOGENICITY - Category 2

TOXIC TO REPRODUCTION (Fertility) - Category 2
TOXIC TO REPRODUCTION (Unborn child) - Category 2

SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (central nervous

system (CNS), kidneys, liver, respiratory system) - Category 1

SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (cardiovascular

system, respiratory system) - Category 1 AQUATIC HAZARD (ACUTE) - Category 2 AQUATIC HAZARD (LONG-TERM) - Category 3

GHS label elements

Hazard pictograms









Signal word : Danger

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2. Hazards identification

Hazard statements

: Heating may cause a fire.

Toxic if inhaled.

Harmful if swallowed or in contact with skin. Causes severe skin burns and eye damage. Suspected of damaging fertility or the unborn child.

Suspected of causing cancer.

Causes damage to organs. (central nervous system (CNS), kidneys, liver, respiratory system)

Causes damage to organs through prolonged or repeated exposure. (cardiovascular system, respiratory system)

Toxic to aquatic life.

Harmful to aquatic life with long lasting effects.

Precautionary statements Prevention

: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves. Wear eye or face protection. Wear protective clothing. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep away from clothing, incompatible materials and combustible materials. Keep only in original container. Use only outdoors or in a well-ventilated area. Avoid release to the environment. Do not breathe vapor. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling.

Response

: Get medical attention if you feel unwell. IF exposed or concerned: Call a POISON CENTER or physician. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or physician. IF SWALLOWED: Immediately call a POISON CENTER or physician. Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. Wash contaminated clothing before reuse. Immediately call a POISON CENTER or physician. IF ON SKIN: Wash with plenty of soap and water. Call a POISON CENTER or physician if you feel unwell. Take off contaminated clothing and wash it before reuse. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or physician.

Storage

: Store locked up. Protect from sunlight. Store at temperatures not exceeding 20 °C/68 °F. Keep cool. Store away from other materials.

Disposal

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

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.

3. Composition/information on ingredients

Substance/mixture : Mixture

CAS number/other identifiers

CAS number : Not applicable.
ENCS number : Not available.

%	CAS number	ENCS	
25 - <50 15 - <20	28553-12-0 80-15-9	3-1307 3-1014	
12.5 - <15 7 - <10	1338-23-4 614-45-9	5-667 3-1348 3-22	
	25 - <50 15 - <20 12.5 - <15	25 - <50 15 - <20 12.5 - <15 7 - <10 28553-12-0 80-15-9 1338-23-4 614-45-9	25 - <50

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3. Composition/information on ingredients

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

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

SUB codes represent substances without registered CAS Numbers.

4. First aid measures

Description of necessary 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.

Ingestion: If swallowed, seek medical advice immediately and show this container or label.

Keep person warm and at rest. Do NOT induce vomiting.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : Causes serious eye damage.

Inhalation : Toxic if inhaled.

Skin contact : Causes severe burns. Harmful in contact with skin. Causes damage to organs

following a single exposure in contact with skin. Defatting to the skin.

Ingestion : Harmful if swallowed. Causes damage to organs following a single exposure if

swallowed.

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

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : Treat symptomatically. Contact poison treatment specialist immediately if large

quantities have been ingested or inhaled.

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4. First aid measures

Specific treatments

- : No specific treatment.
- **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.

See toxicological information (Section 11)

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media

: Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media

: None known.

Specific hazards arising from the chemical

: 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 toxic to aquatic life. 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 oxides

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.

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.

6. Accidental release measures

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 nonemergency personnel".

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.

Methods and materials for containment and cleaning up

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6. Accidental release measures

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.

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. 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 (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

7. Handling and storage

Precautions for safe handling

: Put on appropriate personal protective equipment (see Section 8). 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. 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 vapor or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Keep away from combustible material. Empty containers retain product residue and can be hazardous. Do not reuse container.

Conditions for safe storage: 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 unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

None.

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8. Exposure controls/personal protection

procedures

Recommended monitoring : 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 appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

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. Use with adequate ventilation.

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.

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 protection **Skin protection**

: Chemical splash goggles and face shield.

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.

Gloves

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.

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.

9. Physical and chemical properties

Appearance

Physical state : Liquid. Color : Clear.

Boiling point : >37.78°C (>100°F)

Flash point : Closed cup: Not applicable.

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9. Physical and chemical properties

Relative density : 1.05

Solubility : Insoluble in the following materials: cold water.

Viscosity : Not Applicable

10. Stability and reactivity

Reactivity : This product, in laboratory testing, either detonates partially, deflagrates slowly or

shows a medium effect when heated under confinement.

Chemical stability: The product is stable.

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

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

products.

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

oxidizing agents, strong alkalis, strong acids.

Hazardous decomposition

products

: Decomposition products may include the following materials: carbon monoxide,

carbon dioxide, smoke, oxides of nitrogen.

11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
₫isononyl phthalate	LD50 Dermal	Rabbit	>3160 mg/kg	-
,	LD50 Oral	Rat	10000 mg/kg	-
1-Methyl-1-phenylethyl 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	-
Ethyl methyl ketone peroxide	LC50 Inhalation Gas.	Rat	200 ppm	4 hours
	LC50 Inhalation Vapor	Rat	1440 mg/m ³	4 hours
	LD50 Oral	Rat	470 mg/kg	-
tert-butyl peroxybenzoate	LD50 Oral	Rat	1012 mg/kg	-
Cumene	LC50 Inhalation Vapor	Rat	39000 mg/m ³	4 hours
	LD50 Dermal	Rabbit	12.3 g/kg	-
	LD50 Oral	Rat	1400 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
1-Methyl-1-phenylethyl hydroperoxide	Skin - Visible necrosis	Rabbit	-	24 hours	24 hours

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11. Toxicological information

Sensitization

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
Methyl-1-phenylethyl hydroperoxide	Category 2	Not determined	respiratory system
Ethyl methyl ketone peroxide	Category 1	Not determined	respiratory system
	Category 3	Not applicable.	Narcotic effects
	Category 3	Not applicable.	Respiratory tract irritation
tert-butyl peroxybenzoate	Category 2	Not determined	respiratory system
Cumene	Category 1	Not determined	central nervous system (CNS), kidneys and liver
	Category 3	Not applicable.	Narcotic effects
	Category 3	Not applicable.	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Name	3.5	Route of exposure	Target organs
1-Methyl-1-phenylethyl hydroperoxide	Category 1		cardiovascular system and respiratory system

Aspiration hazard

Name	Result
Cumene	ASPIRATION HAZARD - Category 1

Information on the likely

routes of exposure

: Not available.

Potential acute health effects

Eye contact : Causes serious eye damage.

Inhalation: Toxic if inhaled.

Skin contact : Causes severe burns. Harmful in contact with skin. Causes damage to organs

following a single exposure in contact with skin. Defatting to the skin.

Ingestion : Harmful if swallowed. Causes damage to organs following a single exposure if

swallowed.

Symptoms related to the physical, chemical and toxicological characteristics

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Product name NOVAGUARD 4801 CATALYST

11. Toxicological information

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

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

Short term exposure

Potential immediate : Not available.

effects

Potential delayed effects : Not available.

Long term exposure

Potential immediate : Not available.

effects

Potential delayed effects : Not available.

Potential chronic health effects

General : Causes damage to organs through prolonged or repeated exposure. Prolonged or

repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis.

Carcinogenicity : Suspected of causing cancer. Risk of cancer depends on duration and level of

exposure.

Mutagenicity: No known significant effects or critical hazards.

Teratogenicity: Suspected of damaging the unborn child.

Developmental effects: No known significant effects or critical hazards.

Fertility effects : Suspected of damaging fertility.

Numerical measures of toxicity

Acute toxicity estimates

Product/ingredient name	Oral (mg/ kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
MOVAGUARD 4801 CATALYST	1265.3	1666.7	N/A	8.8	5.4
diisononyl phthalate	10000	2500	N/A	N/A	N/A
1-Methyl-1-phenylethyl hydroperoxide	382	300	N/A	N/A	1.37
Ethyl methyl ketone peroxide	470	N/A	N/A	1.44	N/A
tert-butyl peroxybenzoate	N/A	N/A	N/A	N/A	1.5
Cumene	N/A	12300	N/A	3	N/A

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11. Toxicological information

Other information

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. Wash thoroughly after handling. Emits toxic fumes when heated.

12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
Misononyl phthalate 1-Methyl-1-phenylethyl hydroperoxide	Acute LC50 >102 mg/l Acute EC50 3.1 mg/l	Fish Algae	96 hours 72 hours
Trydroperoxide	Acute LC50 23.4 mg/l Fresh water Chronic NOEC 1 mg/l	Fish - Danio rerio - Embryo Algae	96 hours 72 hours

Persistence/degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
disononyl phthalate	-	-	Readily
1-Methyl-1-phenylethyl	-	-	Not readily
hydroperoxide			

Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
disononyl phthalate 1-Methyl-1-phenylethyl	8.8 2.16	-	high low
hydroperoxide Cumene	3.66	35.48	low

Mobility in soil

Soil/water partition coefficient (Koc)

: Not available.

Mobility : Not available.

Other adverse effects : No known significant effects or critical hazards.

13. Disposal considerations

Disposal methods

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. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. 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. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and

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13. Disposal considerations

runoff and contact with soil, waterways, drains and sewers.

14. Transport information

	UN	IMDG	IATA
UN number	UN3105	UN3105	UN3105
UN proper shipping name	ORGANIC PEROXIDE TYPE D, LIQUID	ORGANIC PEROXIDE TYPE D, LIQUID	ORGANIC PEROXIDE TYPE D, LIQUID
	(Cumene hydroperoxide, 2-Butanone, peroxide)	(Cumene hydroperoxide, 2-Butanone, peroxide)	Cumene hydroperoxide, 2-Butanone, peroxide)
Transport hazard class(es)	5.2	5.2	5.2
Packing group	-	-	-
Environmental hazards	No.	No. No.	
Marine pollutant substances	Not applicable.	Not applicable.	Not applicable.

Additional information

UN : None identified. **IMDG** : None identified. **IATA** : None identified.

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.

15. Regulatory information

Fire Service Law

Category	Substance name/Type	Danger category	Signal word	Designated quantity
Category V	organic peroxides	II	Fire, shock and heating prohibited	100 kg

Pollutant Release and Transfer Registers (PRTR)

Ingredient name	%	Status	Reference number
1-Methyl-1-Phenylethyl hydroperoxide	18	Class 1	440
Cumene	3	Class 1	83

ISHL

Use of specified chemical substances

None of the components are listed.

Label requirements

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15. Regulatory information

Ingredient name	%		Reference number
Ethylmethylketone peroxide; 2-Butanone, peroxide Cumene	≥10 - ≤16	Listed	71
	≤3.3	Listed	138

Chemicals requiring notification

Ingredient name	%		Reference number
Ethylmethylketone peroxide; 2-Butanone, peroxide Cumene	≥10 - ≤16	Listed	71
	≤3.3	Listed	138

Carcinogen

None of the components are listed.

Mutagen

Ingredient name	%	Status	Reference
			number
∠Hydroperoxy-2-phenylpropane	≥10 - ≤19	Listed	-
2-Butanone, peroxide	≥10 - ≤16	Listed	-
tert-Butyl peroxybenzoate	≤8.6	Listed	-

: Not listed **Corrosive liquid Occupational Safety and** : Not available.

Health Law

Prevention of Tetraalkyl

Lead Poisoning

: Not listed

: Not listed

Harmful Substances

Subject to Obtaining

Permission for Manufacturing

Harmful Substances,

Prohibited for Manufacturing : Not listed

Dangerous Substances

: Explosive **Lead regulation** : Not listed **Organic solvents**

poisoning prevention

: Not available.

Poisonous and Deleterious Substances

None of the components are listed.

Chemical Substances Control Law (CSCL)

Ingredient name	%		Reference number
© umene	3	Priority assessment	126

High Pressure Gas Control: Not available.

Explosives Control Law

None of the components are listed.

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15. Regulatory information

Law Concerning Prevention : Not available.

of Pollution of the Ocean and Maritime Disaster

Maritime Safety Law

Notification Regulating Transportation of Dangerous Materials by Sea

None of the components are listed.

Container class

None of the components are listed.

JSOH Carcinogen : Group 2B **List of Specially Controlled** : Not listed

Industrial Waste

Japan inventory : All components are listed or exempted.

Road law : Not available.

16. Other information

History

Date of issue/Date of

revision

: 20 March 2020

Date of previous issue

: 6/18/2019

Version Prepared by : 8 : EHS

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

Key to abbreviations

ADR = The European Agreement concerning the International Carriage of

Dangerous Goods by Road ATE = Acute Toxicity Estimate

BCF = Bioconcentration Factor

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

IATA = International Air Transport Association IMDG = International Maritime Dangerous Goods

LogPow = logarithm of the octanol/water partition coefficient

MARPOL = International Convention for the Prevention of Pollution From Ships, 1973

as modified by the Protocol of 1978. ("Marpol" = marine pollution)

RID = The Regulations concerning the International Carriage of Dangerous Goods by

Rail

UN = United Nations

Indicates information that has changed from previously issued version.

Notice to reader

The information contained in this data sheet is based on present scientific and technical knowledge. The purpose of this information is to draw attention to the health and safety aspects concerning the products supplied by PPG, and to recommend precautionary measures for the storage and handling of the products. No warranty or quarantee is given in respect of the properties of the products. No liability can be accepted for any failure to observe the precautionary measures described in this data sheet or for any misuse of the products.

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