Safety Data Sheet

According to Annex II to REACH - Regulation (EU) 2020/878 and to Annex II to UK REACH

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

1.1. Product identifier

Code:	**CP0187, CP0188, CP0189**
Product name	**Pearl Gloss**

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

Intended use	**Identified uses: Cosmetic. Uses advised against: Manufacture of food products**

1.3. Details of the supplier of the safety data sheet

Name	**PASSIONE BEAUTY S.P.A.**		
Full address	**Viale Crispi 89-93**		
District and Country	**36100**	**Vicenza**	**(VI)**
		Italia	
	Tel.	**+39 0444-239569**	
e-mail address of the competent person responsible for the Safety Data Sheet	**quality@pucosmetica.it**		

1.4. Emergency telephone number

For urgent inquiries refer to	**+39 0444-239569**

SECTION 2. Hazards identification

2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in (EC) Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of (EU) Regulation 2020/878.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Hazard classification and indication:

Eye irritation, category 2	H319	Causes serious eye irritation.
Skin irritation, category 2	H315	Causes skin irritation.
Skin sensitization, category 1A	H317	May cause an allergic skin reaction.
Hazardous to the aquatic environment, chronic toxicity, category 2	H411	Toxic to aquatic life with long lasting effects.

2.2. Label elements

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

Signal words: Warning

Hazard statements:

H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H411	Toxic to aquatic life with long lasting effects.

Precautionary statements:

SECTION 2. Hazards identification ... / >>

P280	Wear protective gloves / eye protection / face protection.
P273	Avoid release to the environment.
P391	Collect spillage.
P261	Avoid breathing dust / fume / gas / mist / vapours / spray.
P333+P313	If skin irritation or rash occurs: Get medical advice / attention.
P337+P313	If eye irritation persists: Get medical advice / attention.

Contains:
URETHANE ACRYLATE
HYDROXYPROPYL METHACRYLATE
TRIPROPYLENE GLYCOL DIACRYLATE
PENTAERYTHRITIL TETRAMERCAPTOPROPIONATE

2.3. Other hazards

On the basis of available data, the product does not contain any PBT or vPvB in percentage ≥ than 0,1%.

The product does not contain substances with endocrine disrupting properties in concentration ≥ 0.1%.

SECTION 3. Composition/information on ingredients

3.2. Mixtures

Contains:

Identification		**x = Conc. %**	**Classification (EC) 1272/2008 (CLP)**
URETHANE ACRYLATE			
INDEX		35 ≤ x < 37,5	**Eye Irrit. 2 H319, Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Chronic 3 H412**
EC			
CAS			
PENTAERYTHRITIL TETRAMERCAPTOPROPIONATE			
INDEX		22,5 ≤ x < 24	**Acute Tox. 4 H302, Skin Sens. 1A H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 M=1**
EC	*231-472-8*		**STA Oral: 500 mg/kg**
CAS	*7575-23-7*		
HYDROXYPROPYL METHACRYLATE			
INDEX		13,5 ≤ x < 15	**Eye Irrit. 2 H319, Skin Sens. 1 H317**
EC	*248-666-3*		
CAS	*27813-02-1*		
TRIPROPYLENE GLYCOL DIACRYLATE			
INDEX	*607-249-00-X*	8 ≤ x < 9	**Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Chronic 2 H411**
EC	*256-032-2*		
CAS	*42978-66-5*		
ISOBORNYL METHACRYLATE			
INDEX		8 ≤ x < 9	**Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Aquatic Chronic 3 H412**
EC	*201-204-4*		
CAS	*7534-94-3*		
TRIMETHYLOLPROPANE TRIMETHACRYLATE			
INDEX		8 ≤ x < 9	**Aquatic Chronic 2 H411**
EC	*221-950-4*		
CAS	*3290-92-4*		
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide			
INDEX	*015-203-00-X*	2 ≤ x < 2,5	**Repr. 2 H361f**
EC	*278-355-8*		
CAS	*75980-60-8*		
REACH Reg.	*01-2119972295-29-xxxx*		
BHT			
INDEX		0,2 ≤ x < 0,25	**Aquatic Chronic 1 H410 M=1**
EC	*204-881-4*		
CAS	*128-37-0*		

The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures

4.1. Description of first aid measures

General advice: Remove contaminated clothing.
Inhalation: Remove the victim to fresh air and keep him at rest in a position comfortable for breathing. In case of absence of breathing, respiratory irregularity or respiratory arrest, administer artificial respiration or oxygen by qualified personnel. Mouth-to-mouth resuscitation can be dangerous for the person providing aid. Consult a doctor if adverse effects persist or are severe. If necessary, call a poison control center or doctor. If unconscious, place in recovery position and consult a doctor immediately. Keep the airway open.
Loosen tight clothing such as a collar, tie, belt or belt. If decomposition products in a fire are inhaled, symptoms may appear late. The exposed person may need to be kept under medical surveillance for 48 hours.
Skin contact: Wash thoroughly with soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing or wearing gloves.
Continue rinsing for at least 10 minutes. If you experience any complaints or symptoms, avoid further exposure. Wash clothing before reusing it. Clean your shoes thoroughly before using them again. Consult a doctor if symptoms persist.
Contact with eyes: rinse eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check and remove any contact lenses.
Continue rinsing for at least 10 minutes. Consult a doctor if symptoms persist.
Ingestion: wash mouth with water. Remove any dentures. Remove the victim to fresh air and keep him at rest in a position comfortable for breathing. If the material has been ingested and the exposed person is conscious, give small amounts of water to drink. Stop if the exposed person feels ill as vomiting can be dangerous. Do not induce vomiting unless directed by medical personnel. If you vomit, keep your head down so that the vomit does not enter your lungs. Consult a doctor if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place her in the recovery position and consult a doctor immediately. Keep the airway open. Loosen tight clothing such as collars, ties, belts or waistbands.

4.2. Most important symptoms and effects, both acute and delayed

Eye contact: Irritating to eyes.
Symptoms may be as follows: Conjunctivitis, watery eyes, redness, pain or irritation, reversible damage to the cornea and swelling of the eyes.
Inhalation: May cause nose and throat irritation.
Symptoms could be as follows: Irritation, cough, shortness of breath, dizziness, headache or nausea.
Skin contact: Irritating to skin, may cause skin sensitization.
Symptoms may include the following: Redness, inflammation, rash, hives, pain or irritation, and dermatitis.
Ingestion: May be harmful if swallowed.
Symptoms may be as follows: Gastrointestinal symptoms, such as nausea, vomiting, abdominal pain or irritation, and diarrhea, may develop.

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

Specific treatments: Treatment: Treat according to symptoms (decontamination, vital functions), no specific antidote is known. If decomposition products in a fire are inhaled, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

SECTION 5. Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media: Water spray, foam, dry chemicals, carbon dioxide. Use any means appropriate for combustible material in the area. Unsuitable extinguishing media: Do not use full power water jets.

5.2. Special hazards arising from the substance or mixture

Hazards arising from the substance or mixture: In a fire or heating, a pressure increase will occur and the container may burst. Hazardous decomposition products may include:
Carbon monoxide (CO)
Carbon dioxide (CO_2)
Other unidentified organic and inorganic substances.
This material is toxic to aquatic life with long lasting effects. Fire water contaminated by this material must be contained and prevented from being discharged into waterways, sewers or drains.

5.3. Advice for firefighters

Water may be ineffective in fighting fires. If water is used to cool closed containers to avoid pressure buildup, misting nozzles are preferable. Full protective equipment, including self-contained breathing apparatus, is required to protect firefighters from exposure to hazardous coating ingredients and hazardous decomposition products. In emergency conditions, overexposure to decomposition products may cause a health risk; symptoms may not be immediately apparent. Seek medical assistance.

SECTION 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions, protective equipment and emergency procedures
For non-emergency personnel: No action should be taken involving personal risk or without adequate training. Evacuate surrounding areas. Prevent entry of unnecessary and unprotected personnel. Do not touch or walk on spilled material. Avoid breathing vapors or mists. Provide adequate ventilation. Wear an appropriate respirator when ventilation is inadequate. Wear appropriate personal protective equipment.
For emergency responders: If special clothing is required to handle the spill,
take note of all information in the "Exposure controls/personal protection" section on suitable and unsuitable materials. See also information in "For non-emergency personnel".

6.2. Environmental precautions

Avoid dispersion of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the competent authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. It can be harmful to the environment if released in large quantities. Collect spillage.

6.3. Methods and material for containment and cleaning up

Small spill: stop the leak if there is no risk. Move containers from spill area. Dilute with water and dry if water soluble. Alternatively, or if not soluble in water, absorb with a dry inert material and place in an appropriate waste disposal container. Dispose of through a licensed waste disposal contractor.
Large spill: stop the leak if there is no risk. Move containers from spill area. Approach the exhaust from upwind. Prevent entry into sewers, waterways, basements or confined areas. Wash spills at an effluent treatment plant or do the following. Contain and collect spillage with non-combustible absorbent material, such as sand, earth, vermiculite or diatomaceous earth, and place in a container for disposal in accordance with local regulations.
Dispose of through a licensed waste disposal contractor. Contaminated absorbent material may present the same hazard as spilled 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 more information on waste treatment.

SECTION 7. Handling and storage

7.1. Precautions for safe handling

Protective measures: Wear appropriate personal protective equipment (see "Exposure controls/personal protection" section). 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, on skin or clothing. Do not ingest. Avoid breathing vapors or mists. Avoid dispersing into the environment. Store in the original container or an approved alternative made of a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be dangerous. Do not reuse the container.
Tips on general workplace hygiene:
Good industrial hygiene practices must be observed.
Ensure sufficient air exchange and/or extraction in the work rooms.
Wash your hands before breaks and after finishing work.
Do not eat, drink or smoke while working.
Remove all contaminated clothing immediately.
The use of dispensing equipment is recommended to minimize the risk of contact with skin or eyes.
See also section 8 for further information on hygiene measures.

7.2. Conditions for safe storage, including any incompatibilities

Storage: Store in a well-ventilated area. Keep containers (solvent resistant) closed when not in use.
Keep away from sources of ignition. Store in a clean, dry area. Store in accordance with local regulations. Store in the original container protected from direct sunlight in a dry, cool, well-ventilated area, away from incompatible materials (see section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Open containers must be carefully closed and kept in an upright position to avoid leaks. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.
The empty container may retain product residues (steam or liquid).

7.3. Specific end use(s)

Specific solutions for the industrial sector: Not available.

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Information not available

8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must be CE marked, showing that it complies with applicable standards.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves.
The following should be considered when choosing work glove material (see standard EN 374): compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Regulation 2016/425 and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (see standard EN ISO 16321).
RESPIRATORY PROTECTION
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. Use a mask with a type A filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387).
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.
ENVIRONMENTAL EXPOSURE CONTROLS
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Properties		Value		Information
Appearance		liquid		
Colour		various		
Odour		characteristic		
Melting point / freezing point		not available		
Initial boiling point		not available		
Flammability		not available		
Lower explosive limit		not available		
Upper explosive limit		not available		
Flash point	>	60	°C	
Auto-ignition temperature		not available		
Decomposition temperature		not available		
pH		not available		
Kinematic viscosity		not available		
Solubility		not available		
Partition coefficient: n-octanol/water		not available		
Vapour pressure		not available		
Density and/or relative density		not available		
Relative vapour density		not available		
Particle characteristics		not applicable		

9.2. Other information

9.2.1. Information with regard to physical hazard classes

SECTION 9. Physical and chemical properties ... / >>

Information not available

9.2.2. Other safety characteristics

Information not available

SECTION 10. Stability and reactivity

10.1. Reactivity

No dangerous reactions if stored and handled as prescribed/indicated.

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

La polimerizzazione è possibile.

10.4. Conditions to avoid

Avoid sunlight and unhygienic conditions during storage.

10.5. Incompatible materials

Do not store with polymerization initiators, including peroxides, strong oxidizing agents, strong alkalis, metals. Free radical initiators.

10.6. Hazardous decomposition products

Fumes produced by heating to decomposition may include: toxic carbon monoxide, carbon dioxide.

SECTION 11. Toxicological information

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

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

BHT
Result: RD50 Inhalation: Vapour
Species: Mouse
Dose: 59.7 ppm
Exposure: 30 min

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

Information not available

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

Information not available

Interactive effects

Information not available

ACUTE TOXICITY

ATE (Inhalation) of the mixture:	Not classified (no significant component)
ATE (Oral) of the mixture:	>2000 mg/kg
ATE (Dermal) of the mixture:	Not classified (no significant component)

SECTION 11. Toxicological information ... / >>

BHT
LD50 (Dermal): > 2000 mg/kg bw rat
LD50 (Oral): > 6000 mg/kg bw rat

HYDROXYPROPYL METHACRYLATE
LD50 (Dermal): > 5000 mg/kg bw rabbit
LD50 (Oral): > 2000 mg/kg bw rat

TRIMETHYLOLPROPANE TRIMETHACRYLATE
LD50 (Dermal): > 2000 mg/kg bw rat
LD50 (Oral): > 2000 mg/kg bw rat

TRIPROPYLENE GLYCOL DIACRYLATE
LD50 (Dermal): > 2000 mg/kg bw rabbit
LD50 (Oral): > 2000 mg/kg bw rat
LC50 (Inhalation mists/powders): 0,001 mg/l/7h air, rat

ISOBORNYL METHACRYLATE
LD50 (Dermal): > 3000 mg/kg bw rabbit
LD50 (Oral): 3,16 mL/kg bw rat

PENTAERYTHRITIL TETRAMERCAPTOPROPIONATE
STA (Oral): 500 mg/kg estimate from table 3.1.2 of Annex I of the CLP
(figure used for calculation of the acute toxicity estimate of the mixture)

PENTAERYTHRITIL TETRAMERCAPTOPROPIONATE
Result: LD50 Oral
Species: Rat
Dose: > 1,000 - < 2,000 mg/kg body weight

Result: LC50 Inhalation
Species: Rat
Dose: > 3 363 mg/m³ air (analytical)
Exposure: 4 hours

SKIN CORROSION / IRRITATION

Causes skin irritation

URETHANE ACRYLATE
Causes skin irritation.

TRIPROPYLENE GLYCOL DIACRYLATE
Mildly irritating.

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye irritation

URETHANE ACRYLATE
Causes moderate irritation.

TRIPROPYLENE GLYCOL DIACRYLATE
Slightly irritating to eyes.

ISOBORNYL METHACRYLATE
Slightly irritating.

RESPIRATORY OR SKIN SENSITISATION

Sensitising for the skin

URETHANE ACRYLATE
Sensitizing.

HYDROXYPROPYL METHACRYLATE
Sensitizing.

SECTION 11. Toxicological information ... / >>

TRIPROPYLENE GLYCOL DIACRYLATE
Category 1 (skin sensitiser) according to GHS criteria.

ISOBORNYL METHACRYLATE
Irritating.

PENTAERYTHRITIL TETRAMERCAPTOPROPIONATE
Strong sensitizer.

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

ISOBORNYL METHACRYLATE
Hazard category: Specific target organ toxicity - single exposure category 3
Hazard Statement: May cause irritation to the respiratory tract.
Organs affected: respiratory tract
Route of exposure: inhalation

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

TRIPROPYLENE GLYCOL DIACRYLATE
Hazard category: Specific target organ toxicity - single exposure category 3
Hazard Statement: May cause irritation to the respiratory tract.
Organs affected: respiratory tract
Route of exposure: inhalation

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

11.2. Information on other hazards

Based on the available data, the product does not contain substances listed in the main European lists of potential or suspected endocrine disruptors with human health effects under evaluation.

SECTION 12. Ecological information

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity

URETHANE ACRYLATE
Aquatic toxicity
Species: Leucuscus idus
Type of water medium: fresh water
Exposure: 96 hours
Dose: LC50
Effect concentration: 4.6-10 mg/L

BHT
Species: Tetrahymena pyriformis
Type of water medium: fresh water
Exposure: 24 hours
Dose: EC50

SECTION 12. Ecological information ... / >>

Effect concentration: 1.7 mg/L

TRIPROPYLENE GLYCOL DIACRYLATE
Species: Leuciscus idus
Type of water medium: fresh water
Exposure: 96 hours
Dose: LC50
Effect concentration: > 4.6-< 10 mg/L

Species: Activated mud, domestic
Type of water medium: fresh water
Exposure: 30 m
Dose: EC50
Effect concentration: > 1 000 mg/L

URETHANE ACRYLATE

EC50 - for Crustacea	89 mg/l/48h Daphnia magna, freshwater

BHT

LC50 - for Fish	0,199 mg/l/96h Fish – (Q)SAR, freshwater
EC50 - for Crustacea	0,48 mg/l/48h daphnia magna, freshwater
EC50 - for Algae / Aquatic Plants	> 0,24 mg/l/72h Raphidocelis subcapitata, freshwater
Chronic NOEC for Fish	0,053 mg/l Oryzias latipes, 30 d.
Chronic NOEC for Crustacea	0,069 mg/l daphnia magna. freshwater, 21 d.

TRIMETHYLOLPROPANE TRIMETHACRYLATE

LC50 - for Fish	2 mg/l/96h Oncorhynchus mykiss freshwater 96 h
EC50 - for Crustacea	> 9,22 mg/l/48h Daphnia magna freshwater 48 h
EC50 - for Algae / Aquatic Plants	> 1000 mg/l/72h Activated sludge freshwater 3 h
Chronic NOEC for Fish	> 1,431 mg/l Pimephales promelas freshwater 32 d
Chronic NOEC for Algae / Aquatic Plants	0,177 mg/l Pseudokirchneriella subcapitata freshwater 72 h

TRIPROPYLENE GLYCOL DIACRYLATE

EC50 - for Crustacea	89 mg/l/48h daphnia magna, freshwater
EC50 - for Algae / Aquatic Plants	65,9 mg/l/72h Desmodesmus subspicatus, freshwater

ISOBORNYL METHACRYLATE

LC50 - for Fish	1,79 mg/l/96h Danio rerio freshwater 96 h
EC50 - for Crustacea	> 2,57 mg/l/48h Daphnia magna freshwater 48 h
EC50 - for Algae / Aquatic Plants	2,28 mg/l/72h Pseudokirchneriella subcapitata freshwater 72 h
Chronic NOEC for Crustacea	0,233 mg/l Daphnia magna freshwater 21 d

PENTAERYTHRITIL TETRAMERCAPTOPROPIONATE

LC50 - for Fish	0,42 mg/l/96h Oncorhynchus mykiss, freshwater
EC50 - for Crustacea	> 0,35 mg/l/48h Daphnia magna, freshwater
EC50 - for Algae / Aquatic Plants	> 0,12 mg/l/72h Desmodesmus subspicatus, freshwater

12.2. Persistence and degradability

BHT
Degradability: Not easily biodegradable.
Degradation (radiochemical measurement), 28 days: 4.7%

Test method/Guideline: Principles of the method if different from the guideline:
Amounts of 14CH3- or 14C-phenylBHT (as an ethanol solution to obtain well-suspended BHT) and activated sludge were added to the standard culture solution (100 mL), and each mixture was incubated aerobically by providing CO2-free air continuously at the rate of 5 mL/min for 5-16 weeks at 25 ± 1 ºC in the dark. The 14CO2 trap was replaced weekly.

TRIMETHYLOLPROPANE TRIMETHACRYLATE
Degradability: Inherently biodegradable
Degradation (CO2 development), 28 days: 53%

Test Method/Guideline: OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)

TRIPROPYLENE GLYCOL DIACRYLATE
Moderately biodegradable
Biodegradation in water was 48% after 28 days.

Test method/Guideline: OECD Guideline 301 B (ready biodegradability: CO2 evolution test)

SECTION 12. Ecological information ... / >>

PENTAERYTHRITIL TETRAMERCAPTOPROPIONATE
Degradability: Not easily biodegradable.
26% biodegradation at day 28 in the CO2 evolution test.

Test method/Guideline: OECD Guideline 301 B (Ready biodegradability: CO2 evolution test)/EU Method C.4-C (Determination of "ready" biodegradability - Carbon dioxide evolution test)

12.3. Bioaccumulative potential

BHT
The average bioconcentration factors (BCF) are 781 L/kg (50 µg/L) and 839 L/kg (5 µg/kg). However, the substance has been assessed as having bioaccumulative potential, but is not B/vB.

TRIMETHYLOLPROPANE TRIMETHACRYLATE
The calculated Log BCF for the substance is 2.432 (BCF = 270.1 L/kg wet weight).

TRIPROPYLENE GLYCOL DIACRYLATE
Accumulation in organisms is not to be expected.

PENTAERYTHRITIL TETRAMERCAPTOPROPIONATE
It is believed to have low bioaccumulation potential.

12.4. Mobility in soil

BHT
Koc at 20 °C: 23 030
Log Koc: 4,362

TRIMETHYLOLPROPANE TRIMETHACRYLATE
Koc at 20 °C: 1 757

TRIPROPYLENE GLYCOL DIACRYLATE
Koc at 20 °C: 1 023

PENTAERYTHRITIL TETRAMERCAPTOPROPIONATE
Koc at 20°C: 347

12.5. Results of PBT and vPvB assessment

On the basis of available data, the product does not contain any PBT or vPvB in percentage ≥ than 0,1%.

12.6. Endocrine disrupting properties

Based on the available data, the product does not contain substances listed in the main European lists of potential or suspected endocrine disruptors with environmental effects under evaluation.

12.7. Other adverse effects

Information not available

SECTION 13. Disposal considerations

13.1. Waste treatment methods

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to ADR restrictions.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information

SECTION 14. Transport information ... / >>

14.1. UN number or ID number

ADR / RID, IMDG, IATA: UN 3082

ADR / RID: In accordance with Special Provision 375, this product, when is packed in receptacles of a capacity ≤ 5Kg or 5L, is not submitted to ADR provisions.

IMDG: In accordance with Section 2.10.2.7 of IMDG Code, this product, when is packed in receptacles of a capacity ≤ 5Kg or 5L, is not submitted to IMDG Code provisions.

IATA: In accordance with SP A197, this product, when is packed in receptacles of a capacity ≤ 5Kg or 5L, is not submitted to IATA dangerous goods regulations.

14.2. UN proper shipping name

ADR / RID: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
IMDG: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
IATA: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

14.3. Transport hazard class(es)

ADR / RID: Class: 9 Label: 9

IMDG: Class: 9 Label: 9

IATA: Class: 9 Label: 9

14.4. Packing group

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards

ADR / RID: Environmentally Hazardous

IMDG: Marine Pollutant

IATA: Environmentally Hazardous

14.6. Special precautions for user

ADR / RID:	HIN - Kemler: 90	Limited Quantities: 5 L	Tunnel restriction code: (-)
	Special provision: 274, 335, 375, 601		
IMDG:	EMS: F-A, S-F	Limited Quantities: 5 L	
IATA:	Cargo:	Maximum quantity: 450 L	Packaging instructions: 964
	Passengers:	Maximum quantity: 450 L	Packaging instructions: 964
	Special provision:	A97, A158, A197, A215	

14.7. Maritime transport in bulk according to IMO instruments

Information not relevant

SECTION 15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Seveso Category - Directive 2012/18/EU: E2

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006
Product
Point 3
Contained substance
Point 75

Regulation (EU) 2019/1148 - on the marketing and use of explosives precursors
not applicable

Substances in Candidate List (Art. 59 REACH)
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide
REACH Reg.: 01-2119972295-29-xxxx

Substances subject to authorisation (Annex XIV REACH)
None

Substances subject to exportation reporting pursuant to Regulation (EU) 649/2012:
None

Substances subject to the Rotterdam Convention:
None

Substances subject to the Stockholm Convention:
None

Healthcare controls
Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment

A chemical safety assessment has not been performed for the preparation/for the substances indicated in section 3.

SECTION 16. Other information

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Repr. 2	Reproductive toxicity, category 2
Acute Tox. 4	Acute toxicity, category 4
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Skin Sens. 1A	Skin sensitization, category 1A
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
H361f	Suspected of damaging fertility.
H302	Harmful if swallowed.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

LEGEND:

SECTION 16. Other information ... / >>

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- ATE: Acute Toxicity Estimate
- CAS: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE: Identifier in ESIS (European archive of existing substances)
- CLP: Regulation (EC) 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent, bioaccumulative and toxic
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PMT: Persistent, mobile and toxic
- PNEC: Predicted no effect concentration
- REACH: Regulation (EC) 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA: Time-weighted average exposure limit
- TWA STEL: Short-term exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very persistent and very bioaccumulative
- vPvM: Very persistent and very mobile
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Regulation (EC) 1907/2006 (REACH) of the European Parliament
2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
3. Regulation (EU) 2020/878 (II Annex of REACH Regulation)
4. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament
11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament
12. Regulation (EU) 2016/1179 (IX Atp. CLP)
13. Regulation (EU) 2017/776 (X Atp. CLP)
14. Regulation (EU) 2018/669 (XI Atp. CLP)
15. Regulation (EU) 2019/521 (XII Atp. CLP)
16. Delegated Regulation (UE) 2018/1480 (XIII Atp. CLP)
17. Regulation (EU) 2019/1148
18. Delegated Regulation (UE) 2020/217 (XIV Atp. CLP)
19. Delegated Regulation (UE) 2020/1182 (XV Atp. CLP)
20. Delegated Regulation (UE) 2021/643 (XVI Atp. CLP)
21. Delegated Regulation (UE) 2021/849 (XVII Atp. CLP)
22. Delegated Regulation (UE) 2022/692 (XVIII Atp. CLP)
23. Delegated Regulation (UE) 2023/707

- The Merck Index. - 10th Edition
- Handling Chemical Safety
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- IFA GESTIS website
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

CALCULATION METHODS FOR CLASSIFICATION
Chemical and physical hazards: Product classification derives from criteria established by the CLP Regulation, Annex I, Part 2. The data for evaluation of chemical-physical properties are reported in section 9.
Health hazards: Product classification is based on calculation methods as per Annex I of CLP, Part 3, unless determined otherwise in Section 11.
Environmental hazards: Product classification is based on calculation methods as per Annex I of CLP, Part 4, unless determined otherwise in Section 12.