Spectrum Ultraprime Mma Concrete Primer
[Part.1 – Base | Part.2 – Catalyst]

SAFETY DATA SHEET – Part.1

According to Regulation (EC) No 1907/2006, Annex II, as amended by Regulation (EU) 453/2010

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

1.1. Product identifier

Product Name	Spectrum UltraPrime MMA Concrete Primer
Product Inclusion	Part.1 of this document covers the Spectrum UltraPrime MMA Concrete Primer. Base Only
Container Size	10kg

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

Identified Uses	Binder for floor-coating
Uses advised against	No specific uses advised against are identified.

1.3. Details of the supplier of the safety data sheet

Supplier	Meon Ltd. Railside Northarbour Spur Portsmouth PO6 3TU +44 (0) 23 9220 0606 +44 (0) 23 9220 0707 mail@meonuk.com

1.4. Emergency Telephone Number

Emergency telephone	+44 (0) 808 118 1922

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008	Flammable liquids, category 1(H225), Acute toxicity (oral), category 4(H305), Caustic burning/irritation of skin, category 2(H315), Skin sensitisation, category 1 B(H317), Specific Target Organ Toxicity – Single exposure, category 3(H335)
Classification according to Directive 67/548/EEC / 1999/45/EC	Highly flammable. Irritating to respiratory system and skin. May cause sensitisation by skin contact.

2.2. Label Elements

Hazard pictograms:	GHS02: Flame GHS07: Exclamation mark

Signal word:	Danger
Hazard statements:	Highly flammable liquid and vapour. (H225) Harmful if swallowed. (H302) Causes skin irritation. (H315) May cause an allergic skin reaction. (H317) May cause respiratory irritation. (H335)
Precautionary statement: (Prevention)	Wear protective gloves/protective clothing/eye protection. (P280)
Precautionary statement: (Response)	Call a POISON CENTER/doctor if you feel unwell. (P312) IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. (P303 + P361 + P353)
Precautionary statement (Storage)	Store in a well-ventilated place. Keep cool. (P403 + P235)
Precautionary statement (Disposal)	Dispose of contents/container in accordance with local regulation. (P501)
Hazardous component(s) for labelling	Contains methyl methacrylate, N,N-bis-(2-hydroxypropyl)-p-toluidine, triethyleneglycol dimethacrylate.
Further information	Electrostatic charge. The product is normally supplied in a stabilized form. If the permissible storage period and/or storage temperature is exceeded, the product may polymerize with heat evolution.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical characterization:

Hazardous ingredients:

Component:	**EINECS-No. REACH-No. CAS-No.**	**Hazard class/ Hazard category/ Hazard statement**	**Content**
Methyl methacrylate	201-297-1 01-2119452498-28 80-62-6	Flam. Liq. 2; H225 Skin Irrit. 2; H315 Skin Sens. 1B; H317 STOT SE 3 (inhalation); H335	60.0 - 100.0 % by weight
triethyleneglycol dimethacrylate	203-652-6 01-2119969287-21 109-16-0	Skin Sens. 1B; H317	3.0 - 7.0 % by weight
N,N-bis-(2-hydroxypropyl)-ptoluidine	254-075-1 01-2119980937-17 38668-48-3	Acute Tox. 2 (oral); H300 Eye Irrit. 2; H319 Aquatic Chronic 3; H412	1.0 - <3.0 % by weight
N,N-dimethyl-p-toluidine	202-805-4 - 99-97-8	Acute Tox. 3 (oral); H301 Acute Tox. 3 (dermal); H311 Acute Tox. 3 (inhalation); H331 STOT RE 2; H373 Aquatic Chronic 3; H412	0.1 - 1.0 % by weight

SECTION 4: First aid measures

Take off all contaminated clothing immediately. Medical treatment is necessary if symptoms occur which are obviously caused by skin or eye contact with the product or by inhalation of its vapours.

4.1. Description of first aid measures

Inhalation:	Move subject to fresh air and keep him calm. See a physician.
Skin contact:	Wash off immediately with soap and water. If skin irritation occurs consult a physician.
Eye contact:	Flush eyes thoroughly with a large amount of water and consult a physician.
Ingestion:	Do not induce vomiting. Consult a physician immediately.

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

Excessive or prolonged exposure can cause the following:, Headache, confusion, irritation, Product has dermal defatting effect.

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

No specific antidote known.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	Foam, dry chemical, carbon dioxide
Extinguishing media which must not be used for safety reasons	water

5.2. Special hazards arising from the substance or mixture

Specific hazards during firefighting	May be released in case of fire: carbon dioxide, organic products of decomposition.

5.3. Advice for firefighters

Special protective equipment for firefighting.	In the event of fire, wear self-contained breathing apparatus.
Additional information on firefighting	Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. Do not allow run-off from firefighting to enter drains or water courses.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Assure sufficient ventilation. Use personal protective clothing. Keep away sources of ignition. Use breathing apparatus if exposed to vapours/dust/mist/aerosol.

6.2. Environmental precautions

Prevent product from getting into drain/surface water/groundwater.

6.3. Methods and material for containment and cleaning up

Larger quantities: Remove mechanically (by pumping). Use explosion-proof equipment! Smaller quantities and/or residues: Contain with absorbent material (e.g. sand, diatomaceous earth, acid absorbent, universal absorbent or sawdust). Dispose of in accordance with regulations.

6.4. Reference to other sections

For personal protection see section 8.

6.5. Reference to other sections

No information regarding this section.

SECTION 7: Handling and storage

7.1. Precautions on safe handling

Advice on safe handling	Keep container tightly closed. Provide good room ventilation even at ground level (vapours are heavier than air).
Precautions	Smoking, eating and drinking should be prohibited in the application area. For personal protection see section 8. Observe label precautions.
Advice on protection against fire and explosion	Keep away from sources of ignition --- No smoking. Take precautionary measures against static discharges. In the event of fire, cool the

endangered containers with water. When heated above the flash point and/or during spraying (atomizing), ignitable mixtures may form in air. Use only explosion-proof equipment.

7.2. Conditions for safe storage, including any incompatibilities

No data available.

7.3. Specific and uses

No data available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Hazardous ingredients:

Workplace exposure limits:

METHYL METHACRYLATE	Long-term exposure limit (8-hour TWA): WEL 50 ppm(Sk) 208 mg/m3(Sk) Short-term exposure limit (15-minute): WEL 100 ppm(Sk) 416 mg/m3(Sk)

DNEL / PNEC:

No data available.

8.2. Exposure controls

For monitoring procedures refer for instance to "Empfohlene Analysenverfahren für Arbeitsplatzmessungen", Schriftenreihe der Bundesanstalt für Arbeitsschutz and "NIOSH Manual of Analytical Methods", National Institute for Occupational Safety and Health

Protective measures: Do not breathe vapours. Avoid contact with eyes and skin.

Hygiene measures: Take off all contaminated clothing immediately. Store work clothing separately. Follow the usual good standards of occupational hygiene. Clean skin thoroughly after work; apply skin cream.

Respiratory protection: Breathing apparatus in case of high concentrations, short term: filter appliance, filter A

Hand protection: butyl rubber gloves (0.7 mm), Break through time ca. 60 min (EN 374) In practice, due to variable exposure conditions, this information can only be an aid to orientation for the selection of a suitable chemical protection glove. In particular, this information does not substitute suitability tests by the end user.

Splash protection: Neoprene gloves.

General information: Gloves should be replaced regularly, especially after extended contact with the product. For each work-place a suitable glove type has to be selected.

Eye protection: Tightly fitting goggles.

Skin and body protection: On handling of larger quantities: face mask, chemical-resistant boots and apron.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

State: Liquid

Colour: Colourless, slightly turbid

Odour: Ester-like

Paraffin Seperation: <15 °C

Boiling temperature: ca.100 °C (1013 hPa)

Flash point: 10 °C (DIN 51755) (methyl methacrylate)

Ignition temperature: 430 °C (DIN 51794) (methyl methacrylate)

Lower explosion limit: 2.1 %(V) (methyl methacrylate)

Upper explosion limit: 12.5 %(V) (methyl methacrylate)

Vapour pressure: Ca. 40 hPa (20 °C)

Density: 1.00 g/cm3 (20 °C)

Relative vapour density (related to air): > 1 (20 °C)

Solubility in water: ca. 20 g/l (20 °C)

Solubility (qualitative): soluble in ethyl acetate

Ph: not applicable

Viscocity (dynamic): 115 mPa·s (23 °C), (DIN 53018)

9.2. Other information

No data available.

SECTION 10: Stability and reactivity

10.1. Reactivity

See section 10.2.

10.2. Chemical stability

No decomposition if used as directed

10.3. Possibility of hazardous reactions

Polymerization with heat evolution may occur in the presence of radical forming substances (e.g. peroxides), reducing substances, and/or heavy metal ions.

10.4. Conditions to avoid

Heat and ignition sources, aging, contamination, oxygen free atmosphere.

10.5. Incompatible materials

Peroxides, amines, sulphur compounds, heavy metal ions, alkalis, reducing agents and oxidizing agents.

10.6. Hazardous decomposition products

None when use as directed.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Hazardous ingredients:

METHYL METHACRYLATE

ORAL	RAT	LD50	>5000	mg/kg
INHALE	RAT	LC50	29.8	mg/l
SKIN	RBT	LD50	>5000	mg/kg

N,N-BIS-(2-HYDROXYPROPYL)-P-TOLUIDINE

ORAL	RAT	LD50	25-200	mg/kg

N,N-DIMETHYL-P-TOLUIDINE

ORAL	RAT	LD50	996.4	mg/kg

TRIETHYLENEGLYCOL DIMETHACRYLATE

ORAL	RAT	-	>5000	mg/kg
SKIN	MUS	LD50	>2000	mg/kg

Symptoms/routes of exposure

Skin contact: Contact with skin may cause irritation.

Eye contact: Contact with eye may cause irritation.

Respiratory/skin: May cause symptoms like headache, eye irritations, skin affections. ,

sensitization Related to substance: methyl methacrylate.

Mutagenicity assessment: Not mutagenic according to internationally accepted criteria.

Carcinogenicity: Non-carcinogenic in inhalation and feeding studies.

Reprotoxicity/teratogenicity: No indication of toxic effects were observed in reproduction studies in animal

Observations on human: Maethaemoglobinaemia possible after skin contact, symptoms of poisoning may occur many hours after contact, possibility of liver damage.

General information: Symptoms of poisoning my occur many hours after contact, possibility of liver damage, maethaemoglobinaemia possible after skin contact, there are no toxicological data available for the product as such, avoid contact with the skin and eyes and inhalation of the product vapours.

SECTION 12: Ecological information

12.1. Toxicity

No data available.

12.2. Persistence and degradability

Biodegradable.

12.3. Bioaccumulative potential

No evidence for hazardous properties.

12.4. Mobility in soil

No specific test data available.

12.5. Results of PBT and vPvB assessment

This product is not identified as a PBT/vPvB substance.

12.6. Other adverse effects

Prevent substance from entering soil, natural bodies of water and sewer systems.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal operations:	It must be disposed of in accordance with the regulation after consultation of the competent local authorities and the disposal company in a suitable and licensed facility.
Uncleaned packaging:	Contaminated packages must be emptied as good as possible. They may then be recycled after proper cleaning. Packages that cannot be cleaned must be disposed of in the same way as the substance. Uncontaminated packaging may be taken for recycling.
NB:	The user's attention is drawn to the possible existence of regional or national regulations regarding disposal.

SECTION 14: Transport information

This product does not require a classification for transport.

SECTION 15: Regulatory information

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

15.2 Chemical safety assessment

SECTION 16: Other information

Phrases used in s.2 and 3:

Methyl methacrylate
H225 Highly flammable liquid and vapour.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H335 May cause respiratory irritation.
Triethyleneglycol dimethacrylate
H317 May cause an allergic skin reaction.
N,N-bis-(2-hydroxypropyl)-p-toluidine
H300 Fatal if swallowed.
H319 Causes serious eye irritation.
H412 Harmful to aquatic life with long lasting effects.
N,N-dimethyl-p-toluidine
H301 Toxic if swallowed.
H311 Toxic in contact with skin.
H331 Toxic if inhaled.
H373 May cause damage to organs through prolonged or repeated exposure.
H412 Harmful to aquatic life with long lasting effects.
R11 Highly flammable.
R23/24/25 Toxic by inhalation, in contact with skin and if swallowed.
R25 Toxic if swallowed.
R33 Danger of cumulative effects.
R37/38 Irritating to respiratory system and skin.
R43 May cause sensitisation by skin contact.
R52/53 Harmful to aquatic organisms, may cause long-term adverse effects

in the aquatic environment.

Legend to abbreviations:

PNEC = predicted no effect level
DNEL = derived no effect level
LD50 = median lethal dose
LC50 = median lethal concentration
EC50 = median effective concentration
IC50 = median inhibitory concentration
dw = dry weight
bw = body weight
cc = closed cup
oc = open cup
MUS = mouse
GPG = guinea pig
RBT = rabbit
HAM = hamster
HMN = human
MAM = mammal
PGN = pigeon
IVN = intravenous
SCU = subcutaneous
SKN = skin
DRM = dermal
OCC = ocular/corneal
PCP = phycico-chemical properties

SAFETY DATA SHEET – Part.2

MMA Resin Peroxide

According to Regulation (EC) No 1907/2006, Annex II, as amended by Regulation (EU) 453/2010

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

1.1. Product identifier

Product Name	Spectrum UltraPrime MMA Concrete Primer
Product Number	Part.2 of this document covers the Spectrum UltraPrime MMA Concrete Primer. Base Only
Container Size	100g

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

Identified Uses	Catalyst
Uses advised against	No specific uses advised against are identified.

1.3. Details of the supplier of the safety data sheet

Supplier	Meon Ltd. Railside Northarbour Spur Portsmouth PO6 3TU +44 (0) 23 9220 0606 +44 (0) 23 9220 0707 mail@meonuk.com

1.4. Emergency Telephone Number

Emergency telephone	+44 (0) 808 118 1922

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to regulation EC1272/2008 and amendments

Organic peroxides, Type D H242: Heating may cause a fire.
Eye irritation, Category 2 H319: Causes serious eye irritation.
Skin sensitisation, Category 1 H317: May cause an allergic skin reaction.
Reproductive toxicity, Category 2 H361f: Suspected of damaging fertility.
Acute aquatic toxicity, Category 1 H400: Very toxic to aquatic life.
Chronic aquatic toxicity, Category 3 H412: Harmful to aquatic life with long lasting effects.

Classification according to Directive 67/548/EEC or Directive 1999/45/EC

Oxidising R 7: May cause fire.
Toxic to Reproduction Category 3 R62: Possible risk of impaired fertility.
Sensitising R43: May cause sensitisation by skin contact.
Irritant R36: Irritating to eyes.
Dangerous for the environment R50/53: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

2.2. Label Elements

Hazard pictograms

Signal word	Danger
Hazardous component(s) for labelling	Contains Dibenzoyl peroxide – Dicyclohexyl phtalate
H-statement(s)	H242 Heating may cause a fire. H317 May cause an allergic skin reaction. H319 Causes serious eye irritation. H361f Suspected of damaging fertility. H410 Very toxic to aquatic life with long lasting effects.
P-statement(s)	P220 Keep/Store away from clothing/ strong acids, bases, heavy metal salts and other reducing substances /combustible materials. P233 Keep container tightly closed. P235 Keep cool. P261 Avoid breathing dust. P262 Do not get in eyes, on skin, or on clothing. P273 Avoid release to the environment. P281 Use personal protective equipment as required. P333 + P313 If skin irritation or rash occurs: Get medical advice/attention. P363 Wash contaminated clothing before reuse. P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P501 Dispose of contents/ container to an approved waste disposal plant.

2.3. Other hazards

This mixture contains no substance considered to be persistent, bioaccumulating nor toxic (PBT).

SECTION 3: Composition/information on ingredients

SUBSTANCE [ ] MIXTURE [X]

Dangerous component(s)

Ingredient	N°CAS N° EC N° Enregistrement REACH	Classification (EEC) No 67/548 Classification (EC) 1272/2008	Concentration
Dibenzoyl peroxide	94-36-0 202-327-6 2119511472-50	E - R3 O - R7 Xi – R36 –R43 N- R50/53 Org. Perox. B – H241 Skin Sens. 1 – H317 Eye Irrit. 2 – H319 Aquatic Acute 1 – H400	>50 - < 55
dicyclohexyl phthalate	84-61-7 201-545-9 2119978223-34	R43 Repr.Cat.3; R62 R53 Skin Sens. 1 – H317 Repr. 2 – H361f Aquatic Chronic. 3 – H412	>45 - < 50

For the full text of the R-phrases mentioned in this Section, see Section 16.
For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General advice	Take off all contaminated clothing immediately. Never give anything by mouth to an unconscious person. Remove from exposure, lie down. In the case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
In case of inhalation:	Remove to fresh air. Call a physician immediately.
In case of skin contact:	Wash off immediately with soap and plenty of water.
In case of eye contact:	In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
In case of ingestion:	Clean mouth with water and drink afterwards plenty of water. If a person vomits when lying on his back, place him in the recovery position. Do NOT induce vomiting. If swallowed, seek medical advice immediately and show this container or label.

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

No data available

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

No data available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Extinguishing media which must not be used for safety reasons	high volume water jet

5.2. Special hazards arising from the substance or mixture

Specific hazards during firefighting	Cool closed containers exposed to fire with water spray. Do not allow run-off from firefighting to enter drains or water courses. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

5.3. Advice for firefighters

Special protective equipment for firefighting.	Use personal protective equipment

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Wear respiratory protection. Wear personal protective equipment.

6.2. Environmental precautions

Avoid subsoil penetration. Do not allow material to contaminate ground water system. Do not contaminate water.
If the product contaminates rivers and lakes or drains inform respective authorities. Do not let product enter drains.

6.3. Methods and material for containment and cleaning up

Remove mechanically and with care (e.g. with clean polyethylene plastic shovel). Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).

6.4. Reference to other sections

See chapter: 7, 8, 11, 12 and 13

6.5. Other information

Never add other substances or waste material to product residue. Offer surplus and non-recyclable solutions to a licensed disposal company.

SECTION 7: Handling and storage

7.1. Precautions on safe handling

For personal protection see section 8.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage areas	Electrical installations / working materials must comply with the

and containers:	technological safety standards. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Keep container tightly closed. No smoking.
Further information on storage Conditions:	Avoid impurities (e.g. rust, dust, ash), risk of decomposition.
Advice on common storage:	Store apart from other dangerous and incompatible substances.
Storage temperature:	< 30 °C
Other data:	Storing temperature for reasons of quality

7.3. Specific and uses

No data available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Components	CAS-No	Control parameters	Basis	Update
dibenzoyl peroxide	94-36-0	AGW (Inhalable fraction): 5 mg/m3, DFG,	DE TRGS 900	2006-01-01

Other information on limit values: see chapter 16

DNEL

dibenzoyl peroxide	End Use: Professional use Exposure routes: Inhalation Potential health effects: Long-term systemic effects Value: 11,75 mg/m3
	End Use: Professional use Exposure routes: Skin contact Potential health effects: Long-term systemic effects Value: 6,6 mg/kg

PNEC

dibenzoyl peroxide	Fresh water Value: 0,602 µg/l
	Marine water Value: 0,0602 µg/l
	Intermittent use/release Value: 0,602 µg/l
	Sewage treatment plant Value: 0,35 mg/l
	Fresh water sediment Value: 0,338 mg/kg
	Soil Value: 0,0758 mg/kg
dicyclohexyl phthalate	Fresh water Value: 0,00362 mg/l
	Marine sediment Value: 0,000362 mg/l
	Intermittent use/release

Value: 0,0362 mg/l

Sewage treatment plant
Value: 10 mg/l

Fresh water sediment
Value: 1,06 mg/kg

Marine sediment
Value: 0,106 mg/kg

Soil
Value: 0,21 mg/kg

Oral
Value: 133 g/kg

8.2. Exposure controls

Engineering measures	Provide adequate ventilation.
Respiratory protection	Short duration filter unit: Filter A
Hand Protection	Material : butyl-rubber Glove thickness : 0,5 mm Breakthrough time: : >= 8 h Remarks : Skin should be washed after contact.
Eye Protection	Tightly sealed goggles (EN 166). Provide eye wash fountain and safety shower in close proximity to points of potential exposure, if is it possible
Body protection	Protective suit Remove and wash contaminated clothing before re-use.
Hygiene measures	Wash hands before breaks and immediately after handling the product. Keep away from food, drink and animal feedingstuffs.
Environmental exposure controls	Avoid subsoil penetration.
General advice:	Do not allow material to contaminate ground water system. Do not contaminate water. If the product contaminates rivers and lakes or drains inform respective authorities. Do not let product enter drains.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Appearance	solid
Colour	white
Odour	aromatic
Odour Threshold	Not relevant
pH	no data available
Melting point/freezing point	no data available
Initial boiling point and boiling range	not applicable, Decomposition
Flash point	not applicable
Evaporation rate	Not relevant
Flammability	solid / gaseous: not applicable
Lower explosion limit	no data available
Upper explosion limit	no data available
Vapour pressure	not applicable
Relative vapour density	no data available

Density	no data available
Water solubility	insoluble
Partition coefficient: noctanol/ water	no data available
Solubility in other solvents	soluble Medium: Phthalates
Auto-ignition temperature	not applicable, Decomposes on heating
Decomposition temperature	ca. 60 °C, SADT (UN test H.4), SADT possible at temperatures above approximately 60 °C.
Viscosity, dynamic	not applicable
Viscosity, kinematic	no data available
Explosive properties	no data available
Oxidizing properties	Organic peroxide

9.2. Other information

Ignition temperature	not applicable
Bulk density	620 kg/m3
Refraction index	not applicable

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under recommended storage conditions.

10.2. Chemical stability

Contact with incompatible substances can cause disintegration at or below SADT.

10.3. Possibility of hazardous reactions

Vapours may form explosive mixture with air.
Stability : Stable under recommended storage conditions.

10.4. Conditions to avoid

Keep away from heat and sources of ignition.

10.5. Incompatible materials

Accelerators, strong acids and bases, heavy metals and heavy metal salts, reducing agents, Avoid impurities (e.g. rust, dust, ash), risk of decomposition.

10.6. Hazardous decomposition products

Irritant, caustic, flammable, noxious/toxic gases and vapours can develop in the case of fire and decomposition

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute Toxicity

Acute oral toxicity:

dibenzoyl peroxide:	LD50 (Rat, male): > 5.000 mg/kg
dicyclohexyl phthalate:	LD50 (Rat, female): > 2.000 mg/kg

Acute inhalation toxicity:

dibenzoyl peroxide:	LC50 (Rat, male): 24,3 mg/l Exposure time: 4 h Method: OECD Test Guideline 403

Acute dermal toxicity:

dicyclohexyl phthalate	LD50 (Rat, male and female): > 2.000 mg/kg Method: OECD Test Guideline 402

Skin corrosion/irritation

dibenzoyl peroxide	Species: Rabbit No skin irritation Method: OECD Test Guideline 404
dicyclohexyl phthalate	Species: reconstructed human epidermis (RhE) No skin irritation Method: OECD Test Guideline 439

Serious eye damage/eye irritation

dibenzoyl peroxide	Species: Rabbit Irritation to eyes, reversing within 21 days

	Method: OECD Test Guideline 405
dicyclohexyl phthalate	No eye irritation Method: OECD Test Guideline 437

Respiratory or skin sensitisation

Sensitisation:

dibenzoyl peroxide	Species: Mouse Result: May cause sensitisation by skin contact. Method: OECD Test Guideline 429
dicyclohexyl phthalate	Test Method: LLNA Species: Mouse Result: May cause sensitisation by skin contact.

Germ cell mutagenicity

Genotoxicity in vitro:

dibenzoyl peroxide	Type: Ames test Test species: Salmonella typhimurium Result: negative Method: OECD Test Guideline 471
dicyclohexyl phthalate	Test species: Salmonella typhimurium with and without metabolic activation Result: negative

Carcinogenicity

dibenzoyl peroxide	Carcinogenicity: Animal testing did not show any carcinogenic effects. Mutagenicity: In vivo tests did not show mutagenic effects

Reproductive toxicity

dibenzoyl peroxide	Note: No toxicity to reproduction
dicyclohexyl phthalate	Note: Some evidence of adverse effects on sexual function and fertility, and/or on development, based on animal experiments., Suspected of damaging fertility.

STOT - repeated exposure

dibenzoyl peroxide	NOAEL: Rat: 1.000 mg/kg Application Route: Ingestion Exposure time: 29 d Method: OECD Test Guideline 422 Symptoms: No adverse effects.
dicyclohexyl phthalate	NOAEL: Rat, male and female: 50 mg/kg Application Route: Ingestion Exposure time: 90 d Method: OECD Test Guideline 408

11.1.2. Mixture

No toxicological data available for the mixture.

SECTION 12: Ecological information

12.1. Toxicity

Toxicity to fish

dibenzoyl peroxide	LC50 (Oncorhynchus mykiss (rainbow trout)): 0,06 mg/l Exposure time: 96 h Method: OECD Test Guideline 203
dicyclohexyl phthalate	LC50 (Oryzias latipes (Orange-red killifish)): > 2 mg/l Exposure time: 96 h Method: OECD Test Guideline 203 Note: No toxicity at the limit of solubility

Toxicity to daphnia and other aquatic invertebrates

dibenzoyl peroxide	EC50 (Daphnia): 0,11 mg/l

	Exposure time: 48 h Method: OECD Test Guideline 202
Toxicity to algae	
dibenzoyl peroxide	EC50 (Pseudokirchneriella subcapitata (green algae)): 0,07 mg/l Exposure time: 72 h Method: OECD Test Guideline 201
dicyclohexyl phthalate	EC50 (Pseudokirchneriella subcapitata (Selenastrum capricornutum)): > 2 mg/l Exposure time: 72 h Method: OECD Test Guideline 201 Note: No toxicity at the limit of solubility NOEC (Pseudokirchneriella subcapitata (Selenastrum capricornutum)): > 2 mg/l Exposure time: 72 h Method: OECD Test Guideline 201
M-Factor	
dibenzoyl peroxide	10
Toxicity to bacteria	
dibenzoyl peroxide	EC50 : 35 mg/l Exposure time: 30 min Test Method: Respiration inhibition of activated sludge Method: OECD Test Guideline 209
dicyclohexyl phthalate	NOEC : > 100 mg/l Exposure time: 3 h Test Method: Respiration inhibition of activated sludge Method: OECD Test Guideline 209
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	
dicyclohexyl phthalate	NOEC: 0,181 mg/l Exposure time: 21 d Species: Daphnia magna (Water flea) Method: OECD Test Guideline 211

12.2. Persistence and degradability

Biodegradability	
dibenzoyl peroxide	Result: Biodegradable Biodegradation: 68 % Exposure time: 28 d Method: OECD Test Guideline 301D Note: The 10 day time window criterion is not fulfilled.
dicyclohexyl phthalate	Result: Readily biodegradable. Biodegradation: 68,5 % Exposure time: 28 d

12.3. Bioaccumulative potential

no data available

12.4. Mobility in soil

Distribution among environmental compartments	
dibenzoyl peroxide	Adsorption/Soil Medium: Soil log Koc: 3,8

12.5. Results of PBT and vPvB assessment

This mixture contains no substance considered to be persistent, bioaccumulating nor toxic (PBT).

12.6. Other adverse effects

No data available.

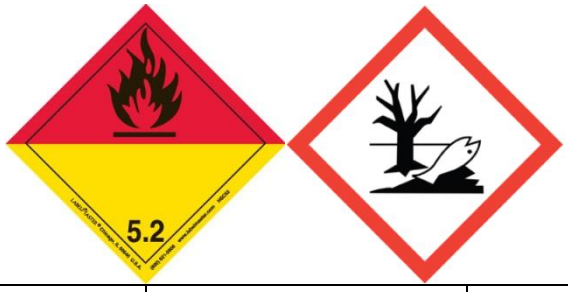
SECTION 13: Disposal considerations

13.1. Waste treatment methods

Advice on disposal and packaging

Disposal:
Dispose of in conjunction with appropriate waste disposal authorities and in accordance with disposal regulations.
Waste codes should be assigned by the user based on the application for which the product was used.

SECTION 14: Transport information

	ADR / RID	IMDG	IATA
14.1 N° ONU	3106		
14.2 UN proper shipping name	ORGANIC PEROXIDE TYPE D, SOLID (DIBENZOYL PEROXIDE)		
14.3 Transport hazard classe label	5.2 		
14.4 Packing Group	Non-applicable	Non-applicable	Non-applicable
14.5 Dangerous for Environment	Yes	Yes	Yes
14.6 Special precautions for users	Tunnel restriction : D Limited quantities: 500g	Limited quantities :500g	
14.7 Transport in bulk (annexe II MARPOL 73/78 ans IBC code)	Non-applicable		

SECTION 15: Regulatory information

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

National legislation

Water contaminating class (Germany)
WGK 1 (slightly water endangering)
Classification according VwVwS, Annex 4.

Other regulations
BGV B4 organische Peroxide. (German regulatory requirements)
BG-Merkblatt M001 beachten (German regulatory requirements)
Produkt unterliegt nicht dem Sprengstoffgesetz (SprengG). (German regulatory requirements) Take note of Dir 92/85/EEC on the safety and health at work of pregnant workers. Take note of Dir 94/33/EC on the protection of young people at work. Störfallverordnung Anhang I (German regulatory requirements)
Gefahrengruppe nach § 3 BGV B4: (German regulatory requirements)
II (German regulatory requirements)

15.2 Chemical safety assessment

no data available

SECTION 16: Other information

Relevant H & R phrases from section 2 and 3

R 3 Extreme risk of explosion by shock, friction, fire or other sources of ignition.

R 7 May cause fire.
R36 Irritating to eyes.
R43 May cause sensitisation by skin contact.
R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R53 May cause long-term adverse effects in the aquatic environment.
R62 Possible risk of impaired fertility.
H241 Heating may cause a fire or explosion.
H242 Heating may cause a fire.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H361f Suspected of damaging fertility.
H400 Very toxic to aquatic life.
H412 Harmful to aquatic life with long lasting effects.

Other information

DFG Senate commission for the review of compounds at the work place dangerous for the health (MAK-commission).