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

1.1. Product identifier

Asplit® OC Hardener
Art.-No.
592 0670

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

Use of the substance/mixture
Hardener

1.3. Details of the supplier of the safety data sheet

Company name:	TIP TOP Oberflaechenschutz Elbe GmbH
Street:	Heuweg 4
Place:	D-06886 Wittenberg
Telephone	+49(0)3491/635-50
Telefax	+49(0)3491/635-552

Responsible for the safety data sheet: sds@gbk-ingelheim.de

1.4. Emergency telephone number:	INTERNATIONAL: +49 - (0) 6132 - 84463, GBK GmbH (24h - 7d/w - 365d/a) England and Wales: NHS Direct - 0845 4647; Scotland: NHS 24 - 08454 24 24 24

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

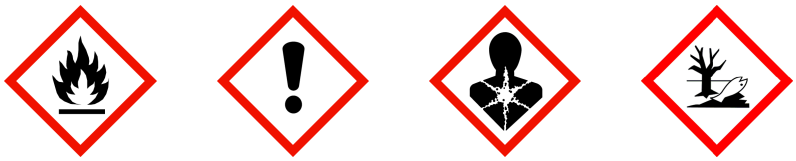
Indications of danger: O - Oxidizing, Xn - Harmful, Xi - Irritant
R phrases:
Possible risk of impaired fertility.
May cause fire.
Irritating to eyes.
May cause sensitisation by skin contact.
May cause long-term adverse effects in the aquatic environment.

Classification according to Regulation (EC) No. 1272/2008 [CLP]
Hazard categories:
Organic peroxide: Org. Perox. CD
Serious eye damage/eye irritation: Eye Irrit. 2
Respiratory/skin sensitization: Skin Sens. 1
Reproductive toxicity: Repr. 2
Hazardous to the aquatic environment: Aquatic Acute 1
Hazardous to the aquatic environment: Aquatic Chronic 3
Hazard Statements:
Heating may cause a fire.
Causes serious eye irritation.
May cause an allergic skin reaction.
Suspected of damaging fertility.
Very toxic to aquatic life.
Harmful to aquatic life with long lasting effects.

2.2. Label elements

Hazardous components which must be listed on the label
Dicyclohexyl phthalate
Dibenzoyl peroxide

Signal word:	Danger
Pictograms:	GHS02-GHS07-GHS08-GHS09



Hazard statements

H242	Heating may cause a fire.
H319	Causes serious eye irritation.
H317	May cause an allergic skin reaction.
H361f	Suspected of damaging fertility.
H400	Very toxic to aquatic life.
H412	Harmful to aquatic life with long lasting effects.

Precautionary statements

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P220	Keep/Store away from Soil, rust, chemicals, strong acids and bases and accelerators (heavy metal salts, amines).
P234	Keep only in original container.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P410	Protect from sunlight.
P411+P235	Store at temperatures not exceeding +30 °C/86 °F. Keep cool.
P420	Store away from other materials.
P273	Avoid release to the environment.

2.3. Other hazards

Dust may form explosive mixtures with air.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical characterization

Hardener based on dibenzoyl peroxide

Hazardous components

EC No	Chemical name	Quantity
CAS No	Classification according to Directive 67/548/EEC	
Index No	Classification according to Regulation (EC) No. 1272/2008 [CLP]	
REACH No		
201-545-9	Dicyclohexyl phthalate	40 - 50 %
84-61-7	Repr. Cat. 3 R62-43-53	
	Repr. 2, Skin Sens. 1, Aquatic Chronic 3; H361f H317 H412	
01-2119978223-34		
202-327-6	Dibenzoyl peroxide	40 - 50 %
94-36-0	E - Explosive, O - Oxidizing, Xi - Irritant R3-7-36-43	
617-008-00-0	Org. Perox. B, Eye Irrit. 2, Skin Sens. 1, Aquatic Acute 1 (M-Factor = 1); H241 H319 H317 H400	
01-2119511472-50		

Full text of R-, H- and EUH-phrases: see section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

Remove contaminated soaked clothing immediately.
Adhere to personal protective measures when giving first aid.
Symptoms of poisoning may not appear for several hours. Keep under medical supervision for at least 48 hours.

After inhalation
Supply fresh air, if required oxygen, consult a physician.
If patient is not breathing, apply artificial respiration.
Remove the casualty into fresh air and keep him immobile.
In case of the person being unconscious put him/her in a stable side position.

After contact with skin
Wash off immediately with soap and plenty of water.
Consult a doctor if skin irritation persists.

After contact with eyes
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
Seek medical treatment by eye specialist.

After ingestion
Summon a doctor immediately.
Rinse out mouth and give plenty of water to drink.
Never give anything by mouth to an unconscious person.
Induce vomiting only upon the advice of a physician.

4.2. Most important symptoms and effects, both acute and delayed
Causes serious eye irritation.
May cause an allergic skin reaction.
Suspected of damaging fertility.

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

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media
Alcohol-resistant foam, dry chemical, carbon dioxide (CO2), water-spray.

Unsuitable extinguishing media
Full water jet.

5.2. Special hazards arising from the substance or mixture
Fire may produce:
Carbon monoxide and carbon dioxide
Hydrocarbons

5.3. Advice for firefighters
Use breathing apparatus with independent air supply.
Protective suit.

Additional information
Cool containers at risk with water spray jet.
Fire residues and contaminated firefighting water must be disposed of in accordance with the local regulations.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
In case of vapour formation use respirator.
Ensure adequate ventilation.
Use personal protective clothing.
Keep away sources of ignition.

6.2. Environmental precautions
Do not discharge into the drains/surface waters/ground water.

6.3. Methods and material for containment and cleaning up
Shovel into suitable container for disposal.
Soak up with inert absorbent material (e.g. vermiculite, clean sand).
In compliance with regulations by local authorities this can be subjected to a special treatment (e.g. thermal utilization) after dilution with an inert solid to 10% content of peroxides.
Do not keep container sealed.

6.4. Reference to other sections

Observe protective instructions (see Sections 7 and 8).
Information for disposal see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling
Provide appropriate exhaust ventilation at machinery and at places where dust can be generated.
Avoid the formation of dust. Do not breathe dust.
Wash hands before breaks and at the end of workday.
Keep away from acids, bases, heavy metal salts and reducing agents.

Advice on protection against fire and explosion
Keep away from sources of ignition - No smoking.
Keep away from open flames, hot surfaces and sources of ignition.
Use explosion-proof equipment / fittings and non-sparking tools.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels
Keep only in original container.
Keep container tightly closed in a dry, cool and well-ventilated place.
Protect against direct sun radiation.
Recommended storage temperature: +5°C - +30°C

Advice on storage compatibility
Incompatible with:
Reducing agents., Heavy metal salts, Acids and bases.

Further information on storage conditions
Keep away from food, drink and animal feeding stuffs.

7.3. Specific end use(s)

Hardener

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limits (EH40)

CAS No	Substance	ppm	mg/m³	fibres/ml	Category	Origin
94-36-0	Dibenzoyl peroxide	-	5		TWA (8 h)	WEL
		-	-		STEL (15 min)	WEL
84-61-7	Dicyclohexyl phthalate	-	5		TWA (8 h)	WEL
		-	-		STEL (15 min)	WEL

8.2. Exposure controls

Appropriate engineering controls
Provide appropriate exhaust ventilation at machinery and at places where dust can be generated.

Protective and hygiene measures
Do not breathe dust.
Avoid contact with eyes and skin.
Wash hands before breaks and immediately after handling the product.
When using do not eat, drink or smoke.
Remove and wash contaminated clothing before re-use.

Eye/face protection
Tightly fitting goggles (EN 166).
Eye wash bottle with pure water (EN 15154).

Hand protection
Chemical protective gloves made of nitrile, nitrile/cotton, butyl or neoprene, with a minimum thickness of 0.7 mm, permeation

time of approx. 480 minutes.
This recommendation refers exclusively to the chemical compatibility and the lab test conforming to EN 374 carried out under lab conditions.
Requirements can vary as a function of the use. Therefore it is necessary to adhere additionally to the recommendations given by the manufacturer of protective gloves.
Pls. find examples in the protective gloves database under: http://bestglove.com/site/chemrest/

Skin protection
Long sleeved clothing (EN 368).
Apron (EN 467).

Respiratory protection
Breathing apparatus (particle filter) only if dust is formed. (Particle filter P2)

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	Powder
Colour:	Whitish
Odour:	characteristic
Flash point:	n.a.
Lower explosion limits:	n.a.
Upper explosion limits:	
Density (at 20 °C):	1,12 g/cm³
Bulk density (at 20 °C):	0,62 - 0,66 kg/m³
Water solubility: (at 20 °C)	n.d.
Ignition temperature:	n.a.
Auto-ignition temperature	The product is not self-igniting
Decomposition temperature:	+60 °C SADT
Explosive properties:	The product is considered non-explosive; nevertheless explosive dust/air mixture can be generated
Oxidizing properties:	May cause fire.

9.2. Other information

SADT (UN-Test H.4): approx. 60°C
Active oxygen: 3,2 - 3,4%

SECTION 10: Stability and reactivity

10.1. Reactivity
No decomposition if stored normally.

10.2. Chemical stability
Stable under normal conditions.

10.3. Possibility of hazardous reactions
Reacts with:
Soil, rust, chemicals, strong acids and bases and accelerators (heavy metal salts, amines).

10.4. Conditions to avoid
To avoid thermal decomposition, do not overheat.
Self-Accelerating decomposition temperature (SADT) from 60°C (SADT).
Dust may form explosive mixtures with air.

10.5. Incompatible materials
Soil, rust, chemicals, strong acids and bases and accelerators (heavy metal salts, amines).

10.6. Hazardous decomposition products
Carbon monoxide and carbon dioxide.
Hydrocarbons

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity
Based on available data, the classification criteria are not met.
No toxicological data available.
Dibenzoyl peroxide: LD50/oral/rat: > 5000 mg/kg
Dicyclohexyl phthalate: LD50/oral/rat: > 2000 mg/kg

Irritation and corrosivity
Causes serious eye irritation.
Skin irritation: Not classified.

Sensitising effects
May cause an allergic skin reaction. (Dicyclohexyl phthalate), (Dibenzoyl peroxide)

STOT-single exposure
Based on available data, the classification criteria are not met.

Severe effects after repeated or prolonged exposure
Based on available data, the classification criteria are not met.

Carcinogenic/mutagenic/toxic effects for reproduction
Suspected of damaging fertility. (Dicyclohexyl phthalate)

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

Additional information on tests
Classification in compliance with the assessment procedure specified in the Regulation (EC) no 1272/2008.

SECTION 12: Ecological information

12.1. Toxicity
Ecological data are not available.
Very toxic to aquatic organisms.
Harmful to aquatic life with long lasting effects.
Dibenzoyl peroxide
LC50/Oncorhynchus mykiss/96 h = 0,0602 mg/l
EC50/Daphnia magna/48 h = 0,110 mg/l
EC50/Pseudokirchneriela subcapitata/72 h = 0,0711 mg/l

12.2. Persistence and degradability
No data available.

12.3. Bioaccumulative potential
No data available.

12.4. Mobility in soil
No data available.

12.5. Results of PBT and vPvB assessment
According to Regulation (EC) No 1907/2006 (REACH) none of the substances, contained in this product are a PBT / vPvB substance.

12.6. Other adverse effects
Hazardous water pollutant.

Further information
Do not flush into surface water or sanitary sewer system.
Risk of drinking water contamination even when low quantities are released into the ground.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Advice on disposal

In compliance with regulations by local authorities this can be subjected to a special treatment (e.g. thermal utilization) after dilution with an inert solid to 10% content of peroxides.
Where possible recycling is preferred to disposal.

Waste disposal number of waste from residues/unused products

080409 WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS; wastes from MFSU of adhesives and sealants (including waterproofing products); waste adhesives and sealants containing organic solvents or other dangerous substances
Classified as hazardous waste.

Contaminated packaging
Contaminated packaging should be emptied as far as possible and after appropriate cleansing may be taken for reuse.
Packaging that cannot be cleaned should be disposed of like the product.

SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number:	UN3106
14.2. UN proper shipping name:	ORGANIC PEROXIDE TYPE D, SOLID (Dibenzoyl peroxide)
14.3. Transport hazard class(es):	5.2
Hazard label:	5.2

Classification code:	P1
Limited quantity:	500 g / 30 kg
Transport category:	2
Tunnel restriction code:	D

Inland waterways transport (ADN)

14.1. UN number:	UN3106
14.2. UN proper shipping name:	ORGANIC PEROXIDE TYPE D, SOLID (Dibenzoyl peroxide)
14.3. Transport hazard class(es):	5.2
Hazard label:	5.2

Classification code:	P1
Limited quantity:	500 g / 30 kg

Marine transport (IMDG)

14.1. UN number:	UN3106
14.2. UN proper shipping name:	ORGANIC PEROXIDE TYPE D, SOLID (Dibenzoyl peroxide)
14.3. Transport hazard class(es):	5.2
Hazard label:	5.2

Marine pollutant:	Yes
Limited quantity:	500 g / 30 kg
EmS:	F-J, S-R

Air transport (ICAO)

14.1. UN number:	UN3106
14.2. UN proper shipping name:	ORGANIC PEROXIDE TYPE D, SOLID (Dibenzoyl peroxide)
14.3. Transport hazard class(es):	5.2
Hazard label:	5.2

Limited quantity Passenger:	Forbidden
IATA-packing instructions - Passenger:	570
IATA-max. quantity - Passenger:	5 kg
IATA-packing instructions - Cargo:	570
IATA-max. quantity - Cargo:	10 kg

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: yes

14.6. Special precautions for user

Handle in accordance with good industrial hygiene and safety practice.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

The transport takes place only in approved and appropriate packaging.

SECTION 15: Regulatory information

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

EU regulatory information

1999/13/EC (VOC): 0 %

National regulatory information

Employment restrictions: Observe employment restrictions for young people. Observe employment restrictions for child bearing mothers and nursing.

Additional information

Chemical prohibition regulation consider.

15.2. Chemical safety assessment

For this substance a chemical safety assessment has not been carried out.

SECTION 16: Other information

Abbreviations and acronyms

ADR = Accord européen relatif au transport international des marchandises Dangereuses par Route
RID = Règlement concernant le transport international ferroviaire de marchandises dangereuses
ADN = Accord européen relatif au transport international des marchandises dangereuses par voie de navigation intérieure
IMDG = International Maritime Code for Dangerous Goods
IATA/ICAO = International Air Transport Association / International Civil Aviation Organization
MARPOL = International Convention for the Prevention of Pollution from Ships
IBC-Code = International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
REACH = Registration, Evaluation, Authorization and Restriction of Chemicals
CAS = Chemical Abstract Service
EN = European norm
ISO = International Organization for Standardization
DIN = Deutsche Industrie Norm
PBT = Persistent Bioaccumulative and Toxic

LD = Lethal dose
LC = Lethal concentration
EC = Effect concentration
IC = Median immobilisation concentration or median inhibitory concentration

Relevant R-phrases (Number and full text)

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

07	May cause fire.
36	Irritating to eyes.
43	May cause sensitisation by skin contact.
53	May cause long-term adverse effects in the aquatic environment.
62	Possible risk of impaired fertility.

Relevant H- and EUH-phrases (Number and full text)

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.

Further Information

Data of items 4 to 8, as well as 10 to 12, do partly not refer to the use and the regular employing of the product (in this sense consult information on use and on product), but to liberation of major amounts in case of accidents and irregularities.
The information describes exclusively the safety requirements for the product(s) and is based on the present level of our knowledge.
The delivery specifications are contained in the corresponding product sheet.
This data does not constitute a guarantee for the characteristics of the product(s) as defined by the legal warranty regulations.
(n.a. = not applicable; n.d. = not determined)

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)