Safety Data Sheet

Revision Date 16-Sep-2019
Version 5

SDS 460

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

1.1 Product identifier

Product name DURACON® CATALYST

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

Recommended Use Curing chemical

1.3 Details of the supplier of the safety data sheet

Supplier

Alteco Technik GmbH
Raiffeisenstrasse 16
D-27239 Twistringen
Germany
Phone: +49 (0) 4243 92950
Fax: +49 (0) 4243 929589

New Zealand Supplier:
Equus Industries Ltd
4 Sheffield Street, Riverlands Estate
Blenheim 7274
Phone: +64 3 578 0214
Fax: +64 3 578 0919

This telephone number is available during office hours only

For further information, please contact: **info@alteco-technik.de**

1.4 Emergency telephone number

Emergency telephone number

Chemtrec: +1 703-527-3887 ex-USA
Chemtrec: 1-800-424-9300 USA

Europe	112
Austria	+43 1 406 43 43
Belgium	Poison center (BE): +32 70 245 245
Denmark	Poison Control Hotline (DK): +45 82 12 12 12
Finland	Poison Information Centre (FI):+358 9 471 977
France	ORFILA (FR): + 01 45 42 59 59
Germany	Poison Center Berlin (DE): +49 030 30686 790 Poison Center Nord: +49 551 19240 (24h available English / German)
Ireland	National Poisons Information Centre (IE): +353 1 8379964 / + 353 1 8092566
Iceland	+354 543 2222
Italy	Poison Centre, Milan (IT): +39 02 6610 1029
Luxembourg	112
Netherlands	National Poisons Information Centre (NL): +31 30 274 88 88 (NB: this service is only available to health professionals)
New Zealand	National Poisons Centre: (NZ) 0800 764 766
Norway	Poisons Information (NO):+ 47 22 591300
Portugal	Poison Information Centre (PT): +351 21 330 3284
Spain	Poison Information Service (ES): +34 91 562 04 20
Sweden	Poisons Information Center (SV):+46 8 33 12 31
Switzerland	Poison Center: Tel 145; +41 44 251 51 51
United Kingdom	111 / 0300 020 0155

2. Hazards identification

2.1 Classification of the substance or mixture

Serious eye damage/eye irritation	Category 2 - (H319)
Skin sensitisation	Category 1 - (H317)
Reproductive Toxicity	Category 1B - (H360D)
Acute aquatic toxicity	Category 1 - (H400)
Chronic aquatic toxicity	Category 1 - (H410)
Organic peroxides	Type D - (H242)

2.2 Label elements

Signal Word
Danger

Hazard Statements
H317 - May cause an allergic skin reaction
H319 - Causes serious eye irritation
H410 - Very toxic to aquatic life with long lasting effects
H242 - Heating may cause a fire
H360D - May damage the unborn child

Precautionary Statements - EU (§28, 1272/2008)
P201 - Obtain special instructions before use
P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking
P234 - Keep only in original packaging
P280 - Wear protective gloves/protective clothing/eye protection/face protection
P308 + P313 - IF exposed or concerned: Get medical advice/attention
P370 + P378 - In case of fire: Use dry chemical, CO2, water spray or alcohol-resistant foam to extinguish

Contains DICYCLOHEXYL PHTHALATE, DIBENZOYL PEROXIDE

2.3. Other Hazards
No information available

3. Composition/information on ingredients

3.1 Substances

This product is a mixture. Health hazard information is based on its components

3.2 Mixtures

Chemical Name	EC-No	CAS No.	Weight-%	GHS Classification	REACH Registration Number
DICYCLOHEXYL	201-545-9	84-61-7	25 - 50	Skin Sens. 1 (H317)	01-2119978223-34-XX

PHTHALATE				Repr. 1B (H360D) Aquatic Chronic 3 (H412)	XX
DIBENZOYL PEROXIDE	202-327-6	94-36-0	25 - 50	Eye Irrit. 2 (H319) Skin Sens. 1 (H317) Org. Perox. B (H241) Aquat. Acute 1 (H400) Aquat. Chronic 1 (H410) M-factor (Acuut): 10 M-factor (Chronisch): 10	01-2119511472-50-XX XX

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

4. First Aid Measures

4.1 Description of first aid measures

General advice Show this safety data sheet to the doctor in attendance. When symptoms persist or in all cases of doubt seek medical advice.

Inhalation Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately if symptoms occur.

Skin contact Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Get medical attention immediately if symptoms occur. Wash contaminated clothing before reuse. Thoroughly clean shoes before re-use.

Eye contact Remove contact lenses. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.

Ingestion If swallowed, call a poison control centre or doctor immediately. If swallowed, DO NOT induce vomiting unless directed to do so by medical personnel. If a person vomits when lying on his back, place him in the recovery position. Never give anything by mouth to an unconscious person. Clean mouth with water and drink afterwards plenty of water.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms Causes serious eye irritation. May cause allergic skin reaction. May damage the unborn child.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician Persons with pre-existing skin, eye, or respiratory disease may be at increased risk from the irritant or allergic properties of this material. Treat symptomatically.

5. Fire-Fighting Measures

5.1 Extinguishing media

Suitable extinguishing media
Water spray, Dry chemical, Foam, Carbon dioxide (CO_2), Sand.

Extinguishing media which shall not be used for safety reasons
Halons, High volume water jet.

5.2 Special hazards arising from the substance or mixture

CAUTION: re-ignition may occur. Sustains combustion. Do not use a solid water stream as it may scatter and spread fire. Risk of

dust explosion. In the event of fire and/or explosion do not breathe fumes. Carbon dioxide (CO2). Carbon monoxide. Benzoic acid. Benzene. Hazardous decomposition products formed under fire conditions.

Hazardous Combustion Products	Thermal decomposition can lead to release of irritating and toxic gases and vapours Carbon dioxide (CO_2) Carbon monoxide Benzoic acid Benzene

5.3 Advice for firefighters

In the event of fire, wear self-contained breathing apparatus. Full protective flameproof clothing. Protective gloves. Evacuate personnel to safe areas. Use water spray to cool unopened containers. Extinguish a small fire with powder or carbon dioxide then apply water to prevent re-ignition. After a fire, ventilate thoroughly the area and soak with water, clean the walls and metallic surfaces. Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

6. Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions
Do not breathe dust. Avoid contact with skin and eyes. Evacuate personnel to safe areas. Avoid dust formation. Ensure adequate ventilation. Wear respiratory protection. Remove all sources of ignition. Use personal protective equipment. For personal protection see section 8.

Advice for emergency responders
For personal protection see section 8.

6.2 Environmental precautions

Prevent product from entering drains.

6.3 Methods and materials for containment and cleaning up

Methods for Containment	Prevent further leakage or spillage if safe to do so.
Methods for cleaning up	Remove all sources of ignition. Prevent further leakage or spillage if safe to do so. Sweep up and shovel into suitable containers for disposal. Avoid dust formation. Keep contents moist. Confinement must be avoided. After cleaning, flush away traces with water.

6.4 Reference to other sections

See section 8 for more information.

7. Handling and storage

7.1 Precautions for safe handling

Advice on safe handling	When using, do not eat, drink or smoke. Do not breathe dust. Use only in well-ventilated areas. Keep product and empty container away from heat and sources of ignition. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Keep away from reducing agents (e.g. amines), acids, alkalies and heavy metal compounds (e.g. accelerators, driers, metal soaps). Confinement must be avoided. Do not allow to dry. Avoid contact with skin and eyes. Wash hands before breaks and immediately after handling the product. Keep working clothes separately. Prevention of fire and explosion. Avoid dust formation. Risk of dust explosion. Use only explosion-proof equipment. It is recommended to use electrical equipment of temperature group T3. However, autoignition can never be excluded. Never pierce, drill, grind, cut, saw or weld any empty container. Keep away from combustible material. Persons with a history of skin sensitisation problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used.
Hygiene measures	Ensure that eyewash stations and safety showers are close to the workstation location. Remove and wash contaminated clothing before re-use. Wash hands before breaks and immediately after handling the product.

7.2 Conditions for safe storage, including any incompatibilities

Storage Conditions
Store in accordance with the particular national regulations. Keep away from food, drink and animal feedingstuffs. Store in original container. Keep in a dry, cool and well-ventilated place. Keep away from direct sunlight. Store separate from other chemicals. Keep away from heat and sources of ignition. Maximum storage temperature. 25 °C (77 °F). Electrical equipment should be protected to the appropriate standard.

German storage class LGK 5.2 - United Kingdom Flammability: Type 2 (CS21)

7.3 Specific end uses

Specific use(s)
No information available

Exposure scenario
No information available.

8. Exposure controls/personal protection

8.1 Control parameters

Exposure Limit Values .

Chemical Name	European Union	Austria	Belgium	Denmark	Finland	France
DICYCLOHEXYL PHTHALATE 84-61-7		TWA: 5 mg/m³		TWA: 3 mg/m³		
DIBENZOYL PEROXIDE 94-36-0		STEL 10 mg/m³ TWA: 5 mg/m³	TWA: 5 mg/m³	TWA: 5 mg/m³	TWA: 5 mg/m³ STEL: 10 mg/m³	TWA: 5 mg/m³
Chemical Name	**Germany**	**Iceland**	**Ireland**	**Italy**	**Luxembourg**	**The Netherlands**
DICYCLOHEXYL PHTHALATE 84-61-7		TWA: 3 mg/m³ Ceiling: 6 mg/m³	TWA: 5 mg/m³ STEL: 15 mg/m³			
DIBENZOYL PEROXIDE 94-36-0	TWA: 5 mg/m³	TWA: 5 mg/m³ Ceiling: 10 mg/m³	TWA: 5 mg/m³ STEL: 15 mg/m³	TWA: 5 mg/m³		
Chemical Name	**Norway**	**Portugal**	**Spain**	**Sweden**	**Switzerland**	**The United Kingdom**
DICYCLOHEXYL PHTHALATE 84-61-7						STEL: 15 mg/m³ TWA: 5 mg/m³
DIBENZOYL PEROXIDE 94-36-0	TWA: 5 mg/m³ STEL: 10 mg/m³	TWA: 5 mg/m³	TWA: 5 mg/m³		STEL: 5 mg/m³ TWA: 5 mg/m³	STEL: 15 mg/m³ TWA: 5 mg/m³

TWA: time weighted average
STEL: Short term exposure limit
LLV: Exposure Limit Values
STV: Short Term Value

Derived No Effect Level (DNEL) No information available

Oral 1.65 mg/kg bw/day (General population DNEL long term oral systemic) (Dibenzoyl peroxide)
0.25 mg/kg bw/day (General population DNEL long term oral systemic) (Dicyclohexyl phthalate)

Dermal 3.3 mg/kg bw/day (General population DNEL long term dermal systemic) (Dibenzoyl peroxide)
0.25 mg/kg bw/day (General population DNEL long term dermal systemic) (Dicyclohexyl phthalate)

Precautionary Statements - 2.9 mg/m³ (General population DNEL long term inhalation systemic) (Dibezoyl peroxide)

Inhalation	0.87 mg/m³ (General population DNEL inhalation acute local/systemic) (Dicyclohexyl phthalate) 0.87 mg/m³ (General population DNEL long term inhalation systemic) (Dicyclohexyl phthalate)
Derived No Effect Level (DNEL)	Workers
Dermal	6.6 mg/kg bw/day (Worker DNEL long term dermal systemic) (Dibenzoyl peroxide) 0.5 mg/kg bw/day (Worker DNEL dermal acute systemic) (Dicyclohexyl phthalate) 0.5 mg/kg bw/day (Worker DNEL long term dermal systemic (Dicyclohexyl phthalate)
Precautionary Statements - Inhalation	11.75 mg/m³ (Worker DNEL long term inhalation systemic) (Dibenzoyl peroxide) 35.2 mg/m³ (Worker DNEL inhalation acute systemic (Dicyclohexyl phthalate) 35.2 mg/m³ (Worker DNEL long term inhalation systemic (Dicyclohexyl phthalate)
Predicted No Effect Concentration (PNEC)	No information available
Fresh Water	0.000602 mg/l (Dibenzoyl peroxide) 0.00362 mg/l (Dicyclohexyl phthalate)
Sea Water	0.0000602 mg/l (Dibenzoyl peroxide) 0.000362 mg/l (Dicyclohexyl phthalate)
Fresh water sediment	0.338 mg/kg (Dibenzoyl peroxide) 1.06 mg/kg (Dicyclohexyl phthalate)
Sea sediment	0.106 mg/kg (Dicyclohexyl phthalate)
Soil	0.0758 mg/kg (Dibenzoyl peroxide) 0.21 mg/kg (Dicyclohexyl phthalate)
Impact on Sewage Treatment	0.35 mg/l (Dibenzoyl peroxide) 10 mg/l (dicyclohexyl phthalate)

8.2 Exposure controls

Engineering Measures	Ensure adequate ventilation. Use only in an area equipped with explosion proof exhaust ventilation.

Personal protective equipment

Eye/Face Protection	Tightly fitting safety goggles.
Hand Protection	Rubber gloves. Butyl rubber. Neoprene gloves. Nitrile rubber.
Skin and body protection	Wear protective gloves/clothing.
Respiratory protection	Ensure adequate ventilation. In case of insufficient ventilation wear suitable respiratory equipment. Half mask with a particle filter P2 (EN 143).
Hygiene measures	Ensure that eyewash stations and safety showers are close to the workstation location. Remove and wash contaminated clothing before re-use. Wash hands before breaks and immediately after handling the product.
Environmental exposure controls	Prevent product from entering drains.

9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	Solid
Appearance	Powder
Colour	White
Odour	Mild
Odour Threshold	No information available

Property	Values	Remarks
pH		No information available
Melting/freezing point		Decomposition
Boiling point/boiling range	Not applicable	No information available
Flash Point	Not applicable	No information available
Evaporation rate	Not Applicable	No information available
Flammability (solid, gas)		No information available
Flammability Limits in Air		
upper flammability limit		No information available
lower flammability limit		No information available
Vapour pressure		No information available
Vapour density		No information available
Specific Gravity	1.23 (20 °C)	
Water solubility	Insoluble in water	
Solubility in other solvents		No information available
Partition coefficient		No information available
Autoignition temperature		No information available
Decomposition temperature	SADT : 55 °C	SADT (self-accelerating decomposition temperature)
Viscosity, kinematic		
Viscosity, dynamic		No information available
Explosive properties		No information available
Oxidising Properties		No information available

9.2 Other information

Volatile organic compounds (VOC) content		No information available
Density		1230 kg/m³ (20 °C)
Bulk Density		640 kg/m³ (20 °C)
Active oxygen content	3.3 %	
Peroxide content	50 %	
SADT	55 °C	

10. Stability and Reactivity

10.1 Reactivity

Hazardous polymerisation does not occur. Decomposes on heating.

10.2 Chemical stability

SADT – (Self accelerating decomposition temperature) is the lowest temperature at which self accelerating decomposition may occur with a substance in the packaging as used in transport. A dangerous self-accelerating decomposition reaction and, under certain circumstances, explosion or fire can be caused by thermal decomposition at and above the following temperature: 55°C. Contact with incompatible substances can cause decomposition at or below the SADT 55°C. Stable under normal conditions.

10.3 Possibility of hazardous reactions

Hazardous polymerisation does not occur.

10.4 Conditions to Avoid

Heat, flames and sparks. Confinement must be avoided. Avoid temperatures above 25 °C. Avoid shock and friction. Do not allow to dry. Explosive when dry.

10.5 Incompatible Materials

Rust, Iron, Copper, Acids and bases, Heavy metal compounds, Reducing agents, Reacts violently in contact with acids, amines, driers, polymerisation accelerators and easily oxidized materials, Store only in stainless steel, plastic or glass vessels

10.6 Hazardous Decomposition Products

Benzoic acid. Benzene. Carbon dioxide (CO_2). Carbon oxides.

11. Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product Information

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Inhalation	Thermal decomposition can lead to release of irritating gases and vapours. Irritating to respiratory system.
Eye contact	Causes serious eye irritation.
Skin contact	slight irritation. May cause an allergic skin reaction. May cause skin irritation.
Ingestion	Ingestion may cause irritation to mucous membranes.

The following values are calculated based on chapter 3.1 of the GHS document mg/l

Unknown Acute Toxicity

< 1 % of the mixture consists of ingredient(s) of unknown toxicity
< 1 % of the mixture consists of ingredient(s) of unknown acute oral toxicity
< 1 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity
< 1 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas)
< 1 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapour)
< 1 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)

Component Information

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
DIBENZOYL PEROXIDE	> 5000 mg/kg (rat)		> 24.3 mg/l (Rat,dust)

Skin corrosion/irritation	slight irritation.
Serious eye damage/eye irritation	Causes serious eye irritation. May cause eye irritation.
Respiratory or skin sensitisation	May cause allergic skin reaction.
Germ Cell Mutagenicity	None known.
Carcinogenicity	No information available.
Reproductive toxicity	May damage the unborn child. Possible risk of impaired fertility.
Specific target organ toxicity - single exposure	No information available.
Specific target organ toxicity - repeated exposure	No information available.
Target Organs	Eyes. Respiratory system. Skin.
Aspiration hazard	No information available.

12. Ecological information

12.1 Toxicity

Very toxic to aquatic life with long lasting effects Toxic to aquatic life with long lasting effects

< 1 % of the mixture consists of components(s) of unknown hazards to the aquatic environment

Ecotoxicity effects
May cause long-term adverse effects in the aquatic environment

Chemical Name	Toxicity to algae	Toxicity to fish	Toxicity to daphnia and other aquatic invertebrates
DIBENZOYL PEROXIDE	EC50 (72h) : 0.06 mg/l (Dibenzoyl peroxide 78 %)	LC50 (96h) : 0.06 mg/l (Dibenzoyl peroxide 78 %)	EC50 (48h) : 0.11 mg/l (Dibenzoyl peroxide 78 %) - Daphnia magna

12.2 Persistence and degradability

Readily biodegradable.

12.3 Bioaccumulative potential

Bioconcentration factor (BCF). = 66.6. estimated.

12.4 Mobility in soil

Mobility in soil
No information available.

Mobility
log Pow = 4.82 (25 °C)
log Koc = 3.46 (estimated).

12.5 Results of PBT and vPvB assessment

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

12.6 Other adverse effects.

Discharge into the environment must be avoided.

Chemical Name	EU - Endocrine Disrupters Candidate List	EU - Endocrine Disruptors - Evaluated Substances	Japan - Endocrine Disruptor Information
DICYCLOHEXYL PHTHALATE	Group III Chemical		

13. Disposal Considerations

13.1 Waste treatment methods

Waste from residues / unused products Dispose of as hazardous waste in compliance with local and national regulations.

Contaminated packaging Dispose of in accordance with local regulations. Do not burn, or use a cutting torch on, the empty drum.

Other information European Waste Catalogue. 160903 - peroxides, e.g. hydrogen peroxide.

14. Transport Information

ADR

14.1 UN 3106
14.2 Proper shipping name Organic Peroxide Type D, solid (Dibenzoylperoxide)
14.3 Hazard class 5.2
ADR/RID-Labels 5.2
14.4 Packing Group Not regulated
14.5 Environmental hazard Not applicable
14.6 Special Provisions None
Classification Code P1
Tunnel restriction code D
Hazard identification No 539
Note No information available

IMDG

14.1 UN 3106
14.2 Proper shipping name Organic Peroxide Type D, solid (Dibenzoylperoxide)
14.3 Hazard class 5.2
14.4 Packing Group Not regulated
14.5 Marine pollutant Yes
14.6 Special Provisions None
EmS F-J, S-R
14.7 Transport in bulk according to MARPOL 73/78 and the IBC Code No information available

IATA

14.1 UN 3106
14.2 Proper shipping name Organic Peroxide Type D, solid (Dibenzoylperoxide)
14.3 Hazard class 5.2
14.4 Packing Group Not regulated
14.5 Environmental hazard Not applicable
14.6 Special Provisions None **Note** "hot transport" forbiden by air.

15. Regulatory information

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

Candidate List of Substances of Very High Concern for Authorisation
This product contains an ingredient according to the candidate list of Annex XIV of the REACH Regulation1907/2006/EC CAS 84-61-7

National regulatory information

Germany WGK Classification	WGK = 1 (self classification)
Denmark - MAL Factor	MAL-kode 0-4
New Zealand HSNO:	Organic Peroxides Group Standard 2017 - HSR 002629

European Union
Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work
Take note of Dir 92/85/EEC on the safety and health at work of pregnant workers

Authorisations and/or restrictions on use:
This product does not contain substances subject to authorisation (Regulation (EC) No. 1907/2006 (REACH), Annex XIV)
This product does not contain substances subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

Persistent Organic Pollutants
Not applicable

International Inventories

TSCA	Complies
EINECS/ELINCS	Complies
DSL	Complies
PICCS	Complies
ENCS	Complies
IECSC	Complies
AICS	Complies
KECL	Complies
NZIoC	-

Legend
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
PICCS - Philippines Inventory of Chemicals and Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
AICS - Australian Inventory of Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
NZIoC - New Zealand Inventory of Chemicals

15.2 Chemical Safety Assessment

No information available

16. Other information

Key or legend to abbreviations and acronyms used in the safety data sheet

Full text of H-Statements referred to under section 3
H317 - May cause an allergic skin reaction
H360D - May damage the unborn child
H412 - Harmful to aquatic life with long lasting effects

H319 - Causes serious eye irritation
H241 - Heating may cause a fire or explosion
H400 - Very toxic to aquatic life
H410 - Very toxic to aquatic life with long lasting effects

Key or legend to abbreviations and acronyms used in the safety data sheet
SADT (self-accelerating decomposition temperature)

Prepared By	RPM Belgium Regulatory Affairs/Product Safety
Revision Date	16-Sep-2019
Revision Note	This data sheet contains changes from the previous version in section(s):, 14.

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006

Disclaimer
The information provided on this SDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

End of Safety Data Sheet