

# SAFETY DATA SHEET UN-GHS

ACRIFIX® CA 0020

Version: 10.0 / REG\_UN VA-No.  
Revision date: 21.10.2016  
Issue date: 10.05.1999  
replaces version: 9.0  
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## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1. Product identifier

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Solution of a peroxide

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

Relevant applications identified : Industrial use  
catalyst for polymerization adhesive  
Applications which are not advised : None known.

### 1.3. Details of the supplier of the safety data sheet

Evonik Performance Materials GmbH  
Product Stewardship  
Kirschenallee  
64293 Damstadt  
Germany  
+49 6151 18 01

E-Mail: sds-info-epm@evonik.com

Information provided by :  
+49 6151 18 40 76

### 1.4. Emergency telephone number

+49 6151 18 43 42 (Interpreting service available)

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

#### GHS-Classification

Skin Sensitisation	Category 1B	H317
Toxicity to reproduction	Category 2	H361
Hazardous to the aquatic environment - AcuteHazard	Category 1	H400
Hazardous to the aquatic environment - Chronic Hazard	Category 1	H410

### 2.2. Label elements

Constituent decisive for hazardous-substance labeling : dibenzoyl peroxide; benzoyl peroxide; CAS-No.: 94-36-0

oxydipropyl dibenzoate; CAS-No.: 27138-31-4  
dicyclohexyl phthalate; CAS-No.: 84-61-7

Symbol(s)



Signal word

: Warning

hazard statement

: H317 - May cause an allergic skin reaction.  
H361 - Suspected of damaging fertility or the unborn child.  
H410 - Very toxic to aquatic life with long lasting effects.

Safety notice (general)

: P280 - Wear protective gloves/protective clothing/eye protection.

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- Precautionary Statement (Prevention) : P201 - Obtain special instructions before use.  
P261 - Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
- Precautionary Statement (Response) : P308 + P313 - IF exposed or concerned: Get medical advice/ attention.  
P302 + P352 - IF ON SKIN: Wash with plenty of water/ soap.
- Precautionary Statement (Disposal) : P501 - Dispose of contents/container according to the local / regional/national/international waste disposal regulations.

## 2.3. Other hazards

Take precautionary measures against static discharges.

## SECTION 3: Composition/information on ingredients

Solution of a peroxide

### 3.1. Substances

-

### 3.2. Mixtures

#### Information on ingredients / Hazardous components As per UN-GHS

Chemical Name	CAS-No.	Concentration	Classification
oxydipropyl dibenzoate	27138-31-4	70.0 % - 90.0 %	Aquatic Chronic 3, H412
dibenzoyl peroxide; benzoyl peroxide	94-36-0	3.0 % - 7.0 %	Org. Perox. B, H241 Skin Sens. 1, H317 Eye Irrit. 2A, H319 Aquatic Acute 1, H400  Aquatic Chronic 1, H410
dicyclohexyl phthalate	84-61-7	3.0 % - 7.0 %	Skin Sens. 1B, H317 Repr. 2, H361 Aquatic Chronic 3, H412

Texts of H phrases, see in Chapter 16

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

- General advice : First aider needs to protect himself. Remove contaminated, saturated 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.
- Inhalation : Move subject to fresh air and keep him calm. In case of discomfort: Supply with medical care.
- Skin contact : Wash off affected area immediately with plenty of water for at least 15 minutes. Consult a physician if irritation persists.
- Eye contact : Rinse thoroughly with plenty of water keeping eyelid open. Consult a physician.
- Ingestion : Rinse out mouth and give plenty of water to drink. Seek medical advice.

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

Causes eye irritation., Allergic appearance, Toxic to reproduction

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

Treat symptomatically.

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## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

Suitable extinguishing media : dry chemical  
carbon dioxide  
Alcohol-resistant foam  
Water spray jet

Unsuitable extinguishing media : High volume water jet

### 5.2. Special hazards arising from the substance or mixture

May be released in case of fire: toxic gases/vapours.  
May be released in case of fire: carbon monoxide, carbon dioxide, organic products of decomposition.

### 5.3. Advice for firefighters

Wear self-contained breathing apparatus.  
In the event of fire and/or explosion do not breathe fumes.

Keep out unprotected persons.  
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.  
Remove all sources of ignition.  
Also keep emptied containers away from sources of heat and ignition.  
Cool down container with a water jet from a safe distance.  
In case of fire, remove the endangered barrels and bring to a safe place, if this can be done safely.  
Prevent fire extinguishing water from contaminating surface water or the ground water system.  
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

Assure sufficient ventilation.  
Use personal protective clothing.  
Keep out unprotected persons.  
Avoid contact with the skin and the eyes.  
Use breathing apparatus if exposed to vapours/dust/mist/aerosol.  
Do not breathe vapours or spray mist.  
Do not eat, drink or smoke when using this product.  
Wash hands thoroughly with soap and water after handling.  
Keep away from open flames, hot surfaces and sources of ignition.

### 6.2. Environmental precautions

Prevent product from getting into drains/surface water/groundwater.  
If the product contaminates rivers and lakes or drains inform respective authorities.

### 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.

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## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

- Safe handling advice : Keep locked up. The product should only be handled by trained personnel. Handle and open container with care. Avoid shock and friction. Provide sufficient ventilation and exhaust at the workplace. In case of insufficient ventilation, wear suitable respiratory equipment. Avoid formation of aerosol. Wear appropriate respiratory protection equipment during spray applications (formation of aerosols). Avoid contact with impurities, decomposition catalysts, incompatible substances. Do not return residues to the storage containers. No eating, drinking, smoking, or snuffing tobacco at work. Avoid inhalation, ingestion and contact with skin and eyes. Remove contaminated clothing and wash it before reuse. Keep away from heat/sparks/open flames/hot surfaces. No smoking. Wash thoroughly after handling. Earth all equipment
- Advice on protection against fire and explosion : Keep away from heat/sparks/open flames/hot surfaces. No smoking. Take precautionary measures against static discharges. In the event of fire, cool the endangered containers with water. Avoid shock and friction. Protect from sunlight, warmth and heat. Use only explosion-proof equipment. Fire fighting must be carried out from a safe distance.

### 7.2. Conditions for safe storage, including any incompatibilities

- Requirements for storage areas and containers : Keep in a well-ventilated place. Store cool and dry in the closed original packaging. Keep at temperatures of between 10 °C and 25 °C. Keep away from open flames, hot surfaces and sources of ignition. Keep locked up. Protect from heat and exposure to direct sunlight
- Further information : Keep in a banded area. Avoid impurities.
- Advice on common storage : Do not store together with accelerators.
- German storage class : 10-13 - German Storage Class 10 to 13

### 7.3. Specific end use(s)

no

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

see section 8.2.

### 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. Absolutely avoid contact with the eyes and/or skin. All precautionary measures indicated have to be observed.
- Hygiene measures : Store work clothing separately. Take off all contaminated clothing immediately. Follow the usual good standards of occupational hygiene. Clean skin thoroughly after work; apply skin cream. Keep away from food, drink and animal feedingstuffs. No eating, drinking, smoking, or snuffing tobacco at work.
- Respiratory protection : Breathing apparatus in case of high concentrations

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Hand protection : Glove material: Nitrile rubber  
Break through time: 480 min  
Glove thickness: 0.4 mm  
EN 374

Glove material: butyl-rubber  
Break through time: 480 min  
Glove thickness: 0.3 mm  
EN 374

As the product is a mixture of several substances, the durability of the glove materials cannot be calculated in advance and has to be tested before use. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time. Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.

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

Physical state : liquid

Form : liquid

Colour : colourless to yellowish, clear

Odour : characteristic

pH : No data available

Solidification Point : Remarks: No data available

Flash point : not applicable

Flammability : not applicable

Upper Explosion/Ignition Limit : No data available

Lower Explosion/Ignition Limit : No data available

Vapour pressure : No data available

Relative vapour density : No data available

Relative density : No data available

Solubility(ies) : No data available

Solubility (qualitative) : No data available

Water solubility : scarcely soluble

Fat solubility : No data available

Partition coefficient: n-octanol/water : No data available

Autoignition temperature : not auto-flammable

Thermal decomposition : No decomposition if stored and applied as directed. Danger of decomposition under influence of heat. Self-Accelerating decomposition temperature (SADT) > 60 °C

Viscosity, kinematic : No data available

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Viscosity, dynamic : ca. 184 mPa.s  
(20 °C)  
Method: Brookfield

Explosive properties : Not explosive Vapours may form explosive mixtures with air

Density : 1.12 g/cm<sup>3</sup>  
(20 °C)

## 9.2. Other information

Ignition temperature : No data available

Self heating : The substance or mixture is not classified as self heating.

Impact sensitivity : No data available

SADT : > 60 °C

Other information : none

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

see section 10.2.

### 10.2. Chemical stability

No decomposition if stored and applied as directed.  
Danger of decomposition under influence of heat.  
Self-Accelerating decomposition temperature (SADT)  
>60 °C

### 10.3. Possibility of hazardous reactions

Risk of self-accelerating, exothermic decomposition with the development of oxygen on contact with incompatible substances.  
To avoid thermal decomposition, do not overheat.

### 10.4. Conditions to avoid

No decomposition if stored and applied as directed.  
Avoid high temperatures and sources of ignition. Keep away from direct sunlight. Avoid shock and friction.

### 10.5. Incompatible materials

Violent decomposition of the peroxide occurs on direct contact with accelerators, e.g. heavy metal salts, tertiary amines, conc. mineral acids and alkali, and reducing agents.  
Avoid contact with  
Dirt  
Rust

### 10.6. Hazardous decomposition products

None when used as directed.

With thermal decomposition, flammable fumes arise which are irritating to the eyes and respiratory organs, predominantly consisting of:  
Carbon oxides, Hydrocarbons

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## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

toxicokinetics, metabolism and distribution : no specific test data available

Acute toxicity (oral) : LD50 rat > 5,000 mg/kg  
Related to substance: dibenzoyl peroxide

|| LD50 rat 3,914 mg/kg  
Related to substance: Oxidipropyldibenzoate

|| LD50 rat > 2,000 mg/kg  
Related to substance: dicyclohexyl phthalate

Acute toxicity (inhalation) : LD50  
Species: Rat  
Exposure duration: 4 h  
Dose: > 200 mg/l  
Related to substance: Oxidipropyldibenzoate

|| Acute toxicity (dermal) : LD50  
Species: Rat  
Dose: > 2,000 mg/kg  
Related to substance: dicyclohexyl phthalate

Irritation/corrosion of the skin : Remarks: Contact with skin may cause irritations.  
Related to substance: product

Serious eye damage/ eye irritation : Remarks: Contact with the eyes may cause irritation.  
Related to substance: product

Respiratory/skin sensitization : Remarks: May cause sensitisation by skin contact.  
Related to substance: dibenzoyl peroxide

#### CMR assessment

|| Carcinogenicity : Carcinogenicity classification not possible from current data.

|| Mutagenicity : Weight of evidence does not support classification as a germ cell mutagen

|| Teratogenicity : Suspected of damaging the unborn child.  
Related to substance: dicyclohexyl phthalate

|| Toxicity to reproduction : Suspected of damaging fertility or the unborn child.  
Related to substance: dicyclohexyl phthalate

Specific Target Organ Toxicity - Single exposure : no evidence for hazardous properties

Specific Target Organ Toxicity - Repeated exposure : no specific test data available

Aspiration hazard : not applicable

Other information : Avoid skin and eye contact and inhalation of product vapours/aerosols.

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## SECTION 12: Ecological information

### Ecotoxicology Assessment

- Acute aquatic toxicity : Very toxic to aquatic life.
- Chronic aquatic toxicity : Chronic aquatic toxicity category 1 (UN-GHS)

### 12.1. Toxicity

- Aquaticity, fish : Species: Oncorhynchus mykiss  
Exposure duration: 96 h  
LC50: 0.0602 mg/l  
Related to substance: dibenzoyl peroxide
- Aquaticity, invertebrates : Species: Daphnia magna  
Exposure duration: 48 h  
EC50: 0.11 mg/l  
Related to substance: dibenzoyl peroxide  
Species: Daphnia magna  
Exposure duration: 21 d  
EC10: 0.001 mg/l  
Related to substance: dibenzoyl peroxide
- Aquaticity, algae / aquatic plants : Species: Pseudokirchneriella subcapitata  
Exposure duration: 72 h  
EC50: 0.0711 mg/l  
Method: OECD TG 201  
Related to substance: dibenzoyl peroxide
- Toxicity in microorganisms : EC50: 35 mg/l  
Related to substance: dibenzoyl peroxide  
Species: Pseudomonas putida  
EC50: > 10 mg/l  
Related to substance: Oxidipropyldibenzoate

### 12.2. Persistence and degradability

- Biological degradability : no specific test data available

### 12.3. Bioaccumulative potential

- Bioaccumulation : no specific test data available

### 12.4. Mobility in soil

- Environmental distribution : no specific test data available

### 12.5. Results of PBT and vPvB assessment

- PBT and vPvB assessment : no specific test data available

### 12.6. Other adverse effects

- General Information : Prevent substance from entering soil, natural bodies of water and sewer systems.



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## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

- Product : Waste is hazardous. It must be disposed of in accordance with the regulations after consultation of the competent local authorities and the disposal company in a suitable and licensed facility.
- Contaminated packaging : Contaminated packaging should ideally be emptied; it can then be recycled after having been decontaminated.  
Uncontaminated packaging may be taken for recycling.  
Packaging that cannot be cleaned should be disposed of professionally.

## SECTION 14: Transport information

### Air transport ICAO-TI/IATA-DGR

- 14.1. UN number: UN 3082  
14.2. UN proper shipping name: Environmentally hazardous substance, liquid, n.o.s. (Oxidipropyl dibenzoate, DIBENZOYL PEROXIDE)
- 14.3. Transport hazard class(es): 9  
14.4. Packing group: III  
14.5. Environmental hazards: Yes  
14.6. Special precautions for user: No

### Sea transport IMDG-Code/GGVSee (Germany)

- 14.1. UN number: UN 3082  
14.2. UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Oxidipropyl dibenzoate, DIBENZOYL PEROXIDE)
- 14.3. Transport hazard class(es): 9  
14.4. Packing group: III  
14.5. Environmental hazards (Marine pollutant): Yes  
14.6. Special precautions for user: No  
EmS: F-A,S-F  
14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code: for transport approval see regulatory information

## SECTION 15: Regulatory information

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

#### National legislation

Occupational restrictions : Note for juveniles. Note for pregnant woman and nursing mothers (EC Directive 92/85/EEC).

Status of Registration

REACH (EU)	preregistered, registered or exempted
TSCA (USA)	listed or exempted
DSL (CDN)	listed or exempted
AICS (AUS)	listed or exempted
METI (J)	listed or exempted
ECL (KOR)	listed or exempted
PICCS (RP)	listed or exempted
IECSC (CN)	listed or exempted
ECS (Taiwan)	listed or exempted

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## SECTION 16: Other information

Other information : none

### Relevant H phrases from chapter 3

H241 : Heating may cause a fire or explosion.  
H317 : May cause an allergic skin reaction.  
H319 : Causes serious eye irritation.  
H361 : Suspected of damaging fertility or the unborn child if inhaled.  
H400 : Very toxic to aquatic life.  
H410 : Very toxic to aquatic life with long lasting effects.  
H412 : Harmful to aquatic life with long lasting effects.

References : relevant manuals and publications  
own examinations  
own toxicological and ecotoxicological studies  
toxicological and ecotoxicological studies of other manufacturers  
SIAR  
OECD-SIDS  
RTK public files

Changes since the last version are highlighted in the margin. This version replaces all previous versions.

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## Legend

<b>ADR</b>	European Agreement concerning the International Carriage of Dangerous Goods by Road
<b>ADN</b>	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
<b>ADNR</b>	European agreement concerning the international carriage of dangerous goods by inland waterways (ADN)
<b>ASTM</b>	American Society for Testing and Materials
<b>ATP</b>	Adaptation to Technical Progress
<b>BCF</b>	Bioconcentration factor
<b>BetrSichV</b>	German Ordinance on Industrial Safety and Health
<b>c.c.</b>	closed cup
<b>CAS</b>	Chemical Abstract Services
<b>CESIO</b>	European Committee of Organic Surfactants and their Intermediates
<b>ChemG</b>	German Chemicals Act
<b>CMR</b>	carcinogenic-mutagenic-toxic for reproduction
<b>DIN</b>	German Institute for Standardization
<b>DMEL</b>	Derived minimum effect level
<b>DNEL</b>	Derived no effect level
<b>EINECS</b>	European Inventory of Existing Commercial Chemical Substances
<b>EC50</b>	half maximal effective concentration
<b>GefStoffV</b>	German Ordinance on Hazardous Substances
<b>GGVSEB</b>	German ordinance for road, rail and inland waterway transportation of dangerous goods
<b>GGVSee</b>	German ordinance for sea transportation of dangerous goods
<b>GLP</b>	Good Laboratory Practice
<b>GMO</b>	Genetic Modified Organism
<b>IATA</b>	International Air Transport Association
<b>ICAO</b>	International Civil Aviation Organization
<b>IMDG</b>	International Maritime Dangerous Goods
<b>ISO</b>	International Organization For Standardization
<b>LOAEL</b>	Lowest observed adverse effect level
<b>LOEL</b>	Lowest observed effect level
<b>NOAEL</b>	No observed adverse effect level
<b>NOEC</b>	no observed effect concentration
<b>NOEL</b>	no observed effect level
<b>o. c.</b>	open cup
<b>OECD</b>	Organisation for Economic Cooperation and Development
<b>OEL</b>	Occupational Exposure Limit
<b>PBT</b>	Persistent, bioaccumulative, toxic
<b>PEC</b>	Predicted effect concentration
<b>PNEC</b>	Predicted no effect concentration
<b>REACH</b>	REACH registration
<b>RID</b>	Convention concerning International Carriage by Rail
<b>STOT</b>	Specific Target Organ Toxicity
<b>SVHC</b>	Substances of Very High Concern
<b>TA</b>	Technical Instructions
<b>TPR</b>	Third Party Representative (Art. 4)
<b>TRGS</b>	Technical Rules for Hazardous Substances
<b>VCI</b>	German chemical industry association
<b>vPvB</b>	very persistent, very bioaccumulative
<b>VOC</b>	volatile organic compounds
<b>VwVwS</b>	German Administrative Regulation on the Classification of Substances Hazardous to Waters into Water Hazard Classes
<b>WGK</b>	Water Hazard Class
<b>WHO</b>	World Health Organization