Manufacturer:
ÅngströmBond®

Product Name:
DeSolite® DF-0016 Optical Fiber Coating (Splicing and Recoat Matrix Coating), UV Cure (2 oz)

Manufacturer Part Number:
COV-DF-0016-2OZ

Click here for more details on the DeSolite® DF-0016 Optical Fiber Coating (Splicing and Recoat Matrix Coating), UV Cure (2 oz)

Safety Data Sheet according to Regulation (EU) No. 1907/2006 as amended

ÅNGSTRÖMBOND®

DeSolite DF-0016

Version 1.0 Revision Date 31.03.2023 Print Date 01.04.2023

This document is formatted for A4 paper size

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

1.1 Product identifier

DESOLITE DF-0016

Material number: 50024860

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

Use:
UV-curable coatings, inks and matrix materials.

1.3 Details of the supplier of the safety data sheet

Covestro Deutschland AG
COVDEAG-CEO-GI-GQ-GPS&RA-GPS&I
51365 Leverkusen

Tel.: +49 214 6009 8134
Email: ProductSafetyEMLA@covestro.com

1.4 Emergency telephone number

+1-703-527-3887 (Chemtrec)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

No classification in accordance with the Regulation (EC) No. 1272/2008.

2.2 Label elements

No labeling necessary according to the Regulation (EC) No. 1272/2008.

2.3 Other hazards

The following percentage of the mixture consists of ingredient(s) with unknown acute oral toxicity: 96 %
The following percentage of the mixture consists of ingredient(s) with unknown acute dermal toxicity: 96 %
The following percentage of the mixture consists of ingredient(s) with unknown acute inhalation toxicity: 98 %

The following percentage of the mixture consists of ingredient(s) with unknown hazards to the aquatic environment: 96 %

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

Type of product: Mixture

3.2 Mixtures

Hazardous components

2-Hydroxy-2-methyl-1-phenyl-propan-1-one
Concentration [wt.-%]: >= 1 - < 2,5
EC-No.: 231-272-0
CAS-No.: 7473-98-5
Classification (1272/2008/CE): Acute Tox. 4 Oral H302 Aquatic Chronic 3 H412
ATE (oral): 1.694 mg/kg

Candidate List of Substances of Very High Concern for Authorisation
This product contains no substances of very high concern in concentrations where an information obligation applies (REACH Regulation (EC) No. 1907/2006, Article 59).

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice: Take off all contaminated clothing immediately.

For effective first-aid, special training / education is needed.

If inhaled: Take the person into the fresh air and keep him warm, let him rest; if there is difficulty in breathing, medical advice is required. If unconscious, place in recovery position and seek medical advice. Oxygen or artificial respiration if needed. If breathing is irregular or stopped, administer artificial respiration. Keep respiratory tract clear. Consult a physician if necessary.

In the case of hazardous fumes, wear self contained breathing apparatus.

In case of skin contact: In case of skin contact wash affected areas thoroughly with soap and plenty of water. Wash off immediately with plenty of water for at least 15 minutes. Take off contaminated clothing and shoes immediately. Wash contaminated clothing before re-use. Thoroughly clean shoes before reuse. Consult a doctor in the event of a skin reaction.

In case of eye contact: In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Remove contact lenses. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.

If swallowed: Do not induce vomiting without medical advice. Rinse mouth. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If a person vomits when lying on his back, place him in the recovery position. Never give anything by mouth to an unconscious person.

If victim is conscious: Give small amounts of water to drink.

If symptoms persist, call a physician.

4.2 Most important symptoms and effects, both acute and delayed

Notes to physician: Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

4.3 Indication of any immediate medical attention and special treatment needed

Therapeutic measures: No information available.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

5.2 Special hazards arising from the substance or mixture

Formation of carbon monoxide, carbon dioxide and other toxic gases in the event of fire or during thermal

decomposition. Fire will produce dense black smoke containing hazardous combustion products (see section 10). In case of fire, may produce hazardous decomposition products such as: Acrylate monomers Aldehydes Organic acids

In the event of fire and/or explosion do not breathe fumes. Cool endangered vessels and containers with sprayed water. Heating raises pressure with consequent risk of bursting and explosion.

5.3 Advice for fire-fighters

Wear an approved positive pressure self-contained breathing apparatus in addition to standard fire fighting gear. Wear a positive-pressure supplied-air respirator with full facepiece. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

Do not allow contaminated extinguishing water to enter the soil, ground-water or surface waters. Immediately evacuate personnel to safe areas.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Immediately evacuate personnel to safe areas. Avoid breathing mist or vapours. Put on protective equipment (see section 8). Ensure adequate ventilation/exhaust extraction. Keep unauthorized persons away. In case of insufficient ventilation, wear suitable respiratory equipment.

6.2 Environment related measures

Do not allow to escape into waterways, wastewater or soil. If the product contaminates rivers and lakes or drains inform respective authorities. Inform the responsible authorities in case of gas leakage, or of entry into waterways, soil or drains. Collect spillage. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

6.3 Methods and material for containment and cleaning up

Soak up with inert absorbent material and dispose of as hazardous waste. Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). Dispose of wastes in an approved waste disposal facility. Do not discharge large quantities of concentrated spills or residues into surface water or sanitary sewer system.

6.4 Reference to other sections

For personal protection see section 8. For further disposal measures see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

For personal protection see section 8. Avoid contact with skin, eyes and clothing. Do not breathe mist or vapours. Do not ingest. Ensure adequate ventilation and, if necessary, exhaust ventilation when handling or transferring the product. In case of insufficient ventilation, wear suitable respiratory equipment. The precautions required in the handling of acrylic acid esters must be taken. Do not re-use empty containers. Ground and bond containers and equipment before transferring to avoid static sparks.

Smoking, eating and drinking should be prohibited in the application area. Wash skin thoroughly after handling. Remove contaminated clothing and protective equipment before entering eating areas.

The personal protective measures described in section 8 must be observed. Avoid contact with skin and eyes absolutely.

Keep away from foodstuffs, drinks and tobacco. Wash hands before breaks and at end of work and use skin-protecting ointment. Keep working clothes separately. Change contaminated or soaked clothing immediately.

7.2 Conditions for safe storage, including any incompatibilities

Keep container dry and tightly closed in a cool and well ventilated place. Store in original container. Protect against heat and direct sunlight. Store locked up. When not in use, keep containers tightly closed. Keep in properly labelled containers. Use appropriate container to avoid environmental contamination. Polymerisation is a highly exothermic reaction and may generate sufficient heat to cause thermal decomposition and/or rupture containers. Inhibitor only effective in the presence of oxygen.

Storage class (TRGS 510) : 10: Combustible liquids
Recommended storage temperature: 15 - 30 °C

7.3 Specific end use(s)

UV-curable coatings, inks and matrix materials.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Contains no substances with occupational exposure limit values.

8.2 Exposure controls

Appropriate engineering controls
If user operations generate dust, fumes, gas, vapour or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Respiratory protection
Respiratory protection required in insufficiently ventilated working areas and during spraying. Respirator with a gas filter

Hand protection
Protective gloves complying with EN 374.
Nitrile rubber: thickness >=0,12mm; Break through time: < 60 min
Contaminated and/or damaged gloves must be changed. Avoid natural rubber gloves. Do not wear PVC gloves, as PVC absorbs acrylates.

Eye protection
Safety glasses with side-shields
Equipment should conform to EN 166

Skin and body protection
Wear suitable protective clothing.
Equipment should conform to EN 1149

Further protective measures
Wash face, hands and any exposed skin thoroughly after handling. Use appropriate degowning techniques to remove potentially contaminated clothing. Take off contaminated clothing and wash it before reuse. Ensure that eyewash stations and safety showers are close to the workstation location. Ultraviolet (UV) light source is used for curing this product. UV light can be hazardous to unprotected skin and eyes.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state:	liquid at 20 °C at 1.013 hPa
Appearance:	viscous liquid

Colour:	clear
Odour:	characteristic
Odour Threshold:	not established
pH:	not established
Melting point/freezing point:	not established
Boiling point/boiling range:	not established
Flash point:	> 100 °C, closed cup
Evaporation rate:	not established
Flammability (solid, gas):	not applicable
Burning number:	not applicable
Upper/lower flammability or explosive limits:	not established
Vapour pressure:	not established
Relative vapour density:	not established
Density:	1,54 g/cm³ at 20 °C
Miscibility with water:	not established
Water solubility:	not established
Surface tension:	not established
Partition coefficient (n−octanol/water):	not established
Auto-ignition temperature:	not applicable
Ignition temperature:	not established
Decomposition temperature:	not established
Heat of combustion:	not established
Viscosity, dynamic:	> 300 mPa.s at 20 °C
Viscosity, kinematic:	> 194 mm2/s at 20 °C

9.2 Other information

The indicated values do not necessarily correspond to the product specification. Please refer to the technical information sheet for specification data.

Explosive properties:	not established
Dust explosion class:	not applicable
Oxidising properties:	not established

SECTION 10: Stability and reactivity

10.1 Reactivity

None known.

10.2 Chemical stability

Stable under recommended storage conditions. The product is chemically stable.

10.3 Possibility of hazardous reactions

In case of heating risk of exothermic polymerisation. Strong exothermic reactions with peroxides may occur in presence of heavy metal ions. Polymerises readily unless inhibited.

10.4 Conditions to avoid

Keep away from heat and sources of ignition.
Exposure to sunlight.
Inhibitor only effective in the presence of oxygen.

10.5 Incompatible materials

Exothermic reaction with: Strong acids and strong bases polymerisation initiators Avoid radical-forming

starting agents, peroxides and reactive metals.

10.6 Hazardous decomposition products

No hazardous decomposition products when stored and handled correctly.

SECTION 11: Toxicological information

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

Acute toxicity, oral
ATEmix (oral): > 2.000 mg/kg
Method: Calculation method

2-Hydroxy-2-methyl-1-phenyl-propan-1-one
LD50 rat, male/female: 1.694 mg/kg
Method: OECD Test Guideline 401

Acute toxicity, dermal
2-Hydroxy-2-methyl-1-phenyl-propan-1-one
LD50 rat, male/female: 6.929 mg/kg
Method: OECD Test Guideline 402

Acute toxicity, inhalation
2-Hydroxy-2-methyl-1-phenyl-propan-1-one
Assessment: no data available

Primary skin irritation
2-Hydroxy-2-methyl-1-phenyl-propan-1-one
Species: rabbit
Result: non-irritant
Classification: No skin irritation
Method: OECD Test Guideline 404

Primary mucosae irritation
2-Hydroxy-2-methyl-1-phenyl-propan-1-one
Species: rabbit
Result: non-irritant
Classification: No eye irritation
Method: OECD Test Guideline 405

Sensitisation
2-Hydroxy-2-methyl-1-phenyl-propan-1-one
Skin sensitisation:
Species: Guinea pig
Result: negative
Classification: Does not cause skin sensitization.
Method: OECD Test Guideline 406

Sensitization of the respiratory airways

no data available

Subacute, subchronic and prolonged toxicity
2-Hydroxy-2-methyl-1-phenyl-propan-1-one
NOAEL: 50 mg/kg
Application Route: Oral
Species: rat, male/female
Exposure duration: 90 d
Frequency of treatment: daily
Method: OECD Test Guideline 408

Carcinogenicity
2-Hydroxy-2-methyl-1-phenyl-propan-1-one
No data available.

Reproductive toxicity/Fertility
2-Hydroxy-2-methyl-1-phenyl-propan-1-one
No data available.

Reproductive toxicity/Developmental Toxicity/Teratogenicity
2-Hydroxy-2-methyl-1-phenyl-propan-1-one
NOAEL (maternal): 500 mg/kg
NOAEL (developmental toxicity): 500 mg/kg body weight/day
Species: rat, male and female
Application Route: Oral
Frequency of treatment: Daily from day 6 to day 20 of the gestation
Method: OECD Test Guideline 414

Genotoxicity in vitro
2-Hydroxy-2-methyl-1-phenyl-propan-1-one
Test type: Ames test
Test system: Salmonella typhimurium
Metabolic activation: with/without
Result: negative
Method: OECD Test Guideline 471

Test type: Chromosome aberration test in vitro
Test system: Chinese hamster V79 cell line
Metabolic activation: with/without
Result: negative
Method: OECD Test Guideline 473

Test type: In vitro mammalian cell gene mutation test
Test system: Chinese hamster ovary (CHO) cells
Metabolic activation: with/without
Result: negative
Method: OECD Test Guideline 476

Genotoxicity in vivo
2-Hydroxy-2-methyl-1-phenyl-propan-1-one
no data available

STOT evaluation – one-time exposure
2-Hydroxy-2-methyl-1-phenyl-propan-1-one
Based on available data, the classification criteria are not met.

STOT evaluation – repeated exposure
2-Hydroxy-2-methyl-1-phenyl-propan-1-one
Based on available data, the classification criteria are not met.

Aspiration toxicity

2-Hydroxy-2-methyl-1-phenyl-propan-1-one
Based on available data, the classification criteria are not met.

CMR Assessment
2-Hydroxy-2-methyl-1-phenyl-propan-1-one
Carcinogenicity: No data available.
Mutagenicity: Based on available data, the classification criteria are not met.
Teratogenicity: Based on available data, the classification criteria are not met.
Reproductive toxicity/Fertility: No data available.

11.2 Information on other hazards

Endocrine disrupting properties
The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

SECTION 12: Ecological information

12.1 Toxicity

Acute Fish toxicity
2-Hydroxy-2-methyl-1-phenyl-propan-1-one
LC50 160 mg/l
Exposure duration: 96 h

LC50 160 mg/l
Species: Leuciscus idus (Golden orfe)
Exposure duration: 96 h
Method: Regulation (EC) No. 440/2008, Annex, C.15

Chronic Fish toxicity
2-Hydroxy-2-methyl-1-phenyl-propan-1-one
No data available.

Acute toxicity for daphnia
2-Hydroxy-2-methyl-1-phenyl-propan-1-one
EC50 > 119 mg/l
Species: Daphnia magna (Water flea)
Exposure duration: 48 h
Method: OECD Test Guideline 202

Chronic toxicity to daphnia
2-Hydroxy-2-methyl-1-phenyl-propan-1-one
no data available

Acute toxicity for algae
2-Hydroxy-2-methyl-1-phenyl-propan-1-one
EC50 1,95 mg/l
Species: Desmodesmus subspicatus (Green algae)
Exposure duration: 72 h
Method: OECD Test Guideline 201

NOEC 0,194 mg/l
Species: Desmodesmus subspicatus (Green algae)
Exposure duration: 72 h
Method: OECD Test Guideline 201

Acute bacterial toxicity
2-Hydroxy-2-methyl-1-phenyl-propan-1-one
EC50 > 1.000 mg/l
Species: activated sludge
Exposure duration: 3 h
Method: OECD Test Guideline 209

12.2 Persistence and degradability

Biodegradability
2-Hydroxy-2-methyl-1-phenyl-propan-1-one
Test type: aerobic
Inoculum: activated sludge
Biodegradation: >= 90 %, 28 d, i.e. readily biodegradable
Method: OECD Test Guideline 301 B

12.3 Bioaccumulative potential

No data available.

12.4 Mobility in soil

No data available.

12.5 Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Endocrine disrupting properties

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission

Regulation (EU) 2018/605 at levels of 0.1% or higher.

12.7 Other adverse effects

No data available.

SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. Reference number 2008/98/EC

Dispose in accordance with applicable international, national and local laws, ordinances and statutes. For disposal within the EC, the appropriate code according to the European Waste Catalogue (EWC) should be used. The classification of the product may meet the criteria for a hazardous waste. Offer surplus and non-recyclable solutions to a licensed disposal company. Do not dispose of waste into sewer.

13.1 Waste treatment methods

After containers have been emptied as thoroughly as possible (e.g. by pouring, scraping or draining until "drip-dry"), they can be sent to an appropriate collection point set up within the framework of the existing take-back scheme of the chemical industry. Empty containers retain residue and can be dangerous. Containers must be recycled in compliance with national legislation and environmental regulations. Dispose of empty containers and wastes safely. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Where possible recycling is preferred to disposal or incineration.

No disposal into waste water.

SECTION 14: Transport information

ADR/RID

14.1 UN number or ID number	:	Not dangerous goods
14.2 UN proper shipping name	:	Not dangerous goods
14.3 Transport hazard class(es)	:	Not dangerous goods
14.4 Packing group	:	Not dangerous goods
14.5 Environmental hazards	:	Not dangerous goods

ADN

14.1 UN number or ID number	:	Not dangerous goods
14.2 UN proper shipping name	:	Not dangerous goods
14.3 Transport hazard class(es)	:	Not dangerous goods
14.4 Packing group	:	Not dangerous goods
14.5 Environmental hazards	:	Not dangerous goods

Dangerous goods classification for inland waterways tanker by request only.

IATA

14.1 UN number or ID number	:	Not dangerous goods
14.2 UN proper shipping name	:	Not dangerous goods
14.3 Transport hazard class(es)	:	Not dangerous goods
14.4 Packing group	:	Not dangerous goods
14.5 Environmental hazards	:	Not dangerous goods

IMDG

14.1 UN number or ID number	:	Not dangerous goods
14.2 UN proper shipping name	:	Not dangerous goods
14.3 Transport hazard class(es)	:	Not dangerous goods
14.4 Packing group	:	Not dangerous goods
14.5 Environmental hazards	:	Not dangerous goods

14.6 Special precautions for user

See section 6 - 8.

Additional information	:	Not dangerous cargo. Keep separated from foodstuffs.

14.7 Maritime transport in bulk according to IMO instruments

Product is not transported by us in bulk.

SECTION 15: Regulatory information

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

Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances.
not applicable

TA Luft List (Germany)
Type: Total dust
Fraction of other substances: 2 %

Type: 5.2.5 Organic Substances
Fraction of other substances: 2,5 %

Water contaminating class (Germany)
2 significantly water endangering

15.2 Chemical Safety Assessment

A Chemical Safety Assessment has not been conducted for this substance / mixture resp. its components.

SECTION 16: Other information

Full text of the hazard statements of the CLP classification (1272/2008/CE) referred to under sections 2, 3 and 10.

H302	Harmful if swallowed.
H412	Harmful to aquatic life with long lasting effects.

Abbreviations and acronyms

ADN	Accord européen relatif au transport international des marchandises Dangereuses par voie de Navigation intérieure
ADR	Accord européen relatif au transport international des marchandises Dangereuses par Route
ANSI	American National Standards Institute
ASTM	American Society of Testing and Materials (US)
ATE	Acute Toxic Estimate
AwSv	Verordnung über Anlagen zum Umgang mit wassergefährdenden Stoffen
BCF	Bioconcentration Factor
CAS	Chemical Abstract Service
CLP	Regulation on Classification, Labelling and Packaging of Substances and Mixtures
CMR	Cancerogenic Mutagenic Reprotoxic
DIN	Deutsches Institut für Normung
DNEL	Derived No-Effect Level
EC…	Effect Concentration ... %
EWC	European Waste Catalogue
IATA	International Air Transport Association
IBC	Intermediate Bulk Container
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods
IMO	International Maritime Organization
ISO	International Organization for Standardization
IUPAC	International Union of Pure and Applied Chemistry
LOAEL	Lowest Observable Adverse Effect Level
LC…	Lethal Concentration, ...%
LD…	Lethal Dose, ...%
MARPOL	International Convention for the Prevention of Pollution From Ships
NOAEL	No Observed Adverse Effect Level
NOEL/NOEC	No Observed Effect Level/Concentration
OECD	Organisation for Economic Co-operation and Development
PBT	persistent, bioaccumulative, toxic
PNEC	Predicted No-Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Règlement concernant le transport International ferroviaire de marchandises Dangereuses
STOT	Specific Target Organ Toxicity
TRGS	Technische Regeln für Gefahrstoffe
vPvB	very Persistent, very Bioaccumulative
WGK	Wassergefährdungsklasse

Further information
The information provided in this Safety Data Sheet 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 guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered 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 materials or in any process, unless specified in the text.