

# Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)



Trade name : Duopol EP D253  
Revision date : 02.02.2020  
Print date : 02.11.2021

Version (Revision) : 2.0.0 (1.0.0)

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

### 1.1 Product identifier

Duopol EP D253  
2C-Epoxy micaceous iron oxyde

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

#### Relevant identified uses

Coatings and paints, fillers, putties, thinners. The product is intended for professional use.

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

**Manufacturer/Supplier :** MONOPOL AG  
**Street/P.O.Box :** Oberrohrdorferstrasse 51  
**Country code/Postal code/Town/City :** 5442 Fislisbach  
**Telephone :** +41 56 484 77 77  
**Telefax :** +41 56 484 77 99  
**Contact :** info@monopol-colors.ch

### 1.4 Emergency telephone number

+41 44 251 51 51

## 2. Hazards identification

### 2.1 Classification of the substance or mixture

#### Classification according to Regulation (EC) No 1272/2008 [CLP]

Flam. Liq. 3 ; H226 - Flammable liquids : Category 3 ; Flammable liquid and vapour.  
Skin Irrit. 2 ; H315 - Skin corrosion/irritation : Category 2 ; Causes skin irritation.  
Eye Irrit. 2 ; H319 - Serious eye damage/eye irritation : Category 2 ; Causes serious eye irritation.  
Skin Sens. 1 ; H317 - Skin sensitisation : Category 1 ; May cause an allergic skin reaction.  
STOT SE 3 ; H335 - STOT-single exposure : Category 3 ; May cause respiratory irritation.  
STOT RE 2 ; H373 - STOT-repeated exposure : Category 2 ; May cause damage to organs through prolonged or repeated exposure.  
Aquatic Chronic 2 ; H411 - Hazardous to the aquatic environment : Chronic 2 ; Toxic to aquatic life with long lasting effects.

### 2.2 Label elements

#### Labelling according to Regulation (EC) No. 1272/2008 [CLP]

##### Hazard pictograms



Flame (GHS02) · Health hazard (GHS08) · Environment (GHS09) · Exclamation mark (GHS07)

##### Signal word

Warning

##### Hazard components for labelling

XYLENE ; CAS No. : 1330-20-7  
REACTION PRODUCT: BISPHENOL A-(EPICHLORHYDRIN), EPOXY RESIN (NUMBER AVERAGE MOLECULAR WEIGHT <= 700) ; CAS No. : 25068-38-6

##### Hazard statements

H226 Flammable liquid and vapour.  
H373 May cause damage to organs through prolonged or repeated exposure.  
H315 Causes skin irritation.

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H317 May cause an allergic skin reaction.  
H319 Causes serious eye irritation.  
H335 May cause respiratory irritation.  
H411 Toxic 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.  
P260 Do not breathe dust/fume/gas/mist/vapours/spray.  
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 [or shower].  
P403+P233 Store in a well-ventilated place. Keep container tightly closed.  
P501 Dispose of contents/container to ....

#### Special rules for supplemental label elements for certain mixtures

EUH205 Contains epoxy constituents. May produce an allergic reaction.

### 2.3 Other hazards

None

## 3. Composition/information on ingredients

### 3.2 Mixtures

#### Hazardous ingredients

XYLENE ; REACH No. : 01-2119488216-32 ; EC No. : 215-535-7; CAS No. : 1330-20-7

Weight fraction :  $\geq 20 - < 25$  %

Classification 1272/2008 [CLP] : Flam. Liq. 3 ; H226 Asp. Tox. 1 ; H304 STOT RE 2 ; H373 Acute Tox. 4 ; H312 Acute Tox. 4 ; H332 Skin Irrit. 2 ; H315 Eye Irrit. 2 ; H319 STOT SE 3 ; H335

REACTION PRODUCT: BISPHENOL A-(EPICHLORHYDRIN), EPOXY RESIN (NUMBER AVERAGE MOLECULAR WEIGHT  $\leq 700$ ) ; REACH No. : 01-2119456619-26 ; CAS No. : 25068-38-6

Weight fraction :  $\geq 15 - < 20$  %

Classification 1272/2008 [CLP] : Skin Irrit. 2 ; H315 Skin Sens. 1 ; H317 Eye Irrit. 2 ; H319 Aquatic Chronic 2 ; H411

ETHYLBENZENE ; REACH No. : 01-2119555267-33 ; EC No. : 202-849-4; CAS No. : 100-41-4

Weight fraction :  $\geq 5 - < 10$  %

Classification 1272/2008 [CLP] : Flam. Liq. 2 ; H225 Asp. Tox. 1 ; H304 STOT RE 2 ; H373 Acute Tox. 4 ; H332

ZINC OXIDE ; REACH No. : 01-2119463881-32 ; EC No. : 215-222-5; CAS No. : 1314-13-2

Weight fraction :  $\geq 5 - < 10$  %

Classification 1272/2008 [CLP] : Aquatic Acute 1 ; H400 Aquatic Chronic 1 ; H410

NAPHTHA (PETROLEUM), HYDROTREATED HEAVY ; REACH No. : 01-2119472146-39 ; EC No. : 265-150-3; CAS No. : 64742-48-9

Weight fraction :  $\geq 1 - < 5$  %

Classification 1272/2008 [CLP] : Asp. Tox. 1 ; H304

#### Additional information

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

### 3.3 Additional information

Paint material, solventborne

## 4. First aid measures

### 4.1 Description of first aid measures

#### General information

When in doubt or if symptoms are observed, get medical advice. Never give anything by mouth to an unconscious person or a person with cramps.

#### Following inhalation

Remove casualty to fresh air and keep warm and at rest. Keep at rest. If breathing is irregular or stopped, administer artificial

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respiration. If unconscious place in recovery position and seek medical advice.

### In case of skin contact

Remove contaminated, saturated clothing immediately. After contact with skin, wash immediately with plenty of water and soap. Do not wash with: Solvents/Thinner

### After eye contact

Remove contact lenses, keep eyelids open. In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist.

### After ingestion

Call a physician in any case! Keep at rest. Do NOT induce vomiting.

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

No information available.

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

None

## 5. Firefighting measures

### 5.1 Extinguishing media

#### Suitable extinguishing media

alcohol resistant foam Extinguishing powder Carbon dioxide (CO<sub>2</sub>) Water spray jet

#### Unsuitable extinguishing media

Full water jet

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

Burning produces heavy smoke.

### 5.3 Advice for firefighters

#### Special protective equipment for firefighters

Use suitable breathing apparatus.

### 5.4 Additional information

Use water spray jet to protect personnel and to cool endangered containers. Do not allow run-off from fire-fighting to enter drains or water courses.

## 6. Accidental release measures

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

Remove all sources of ignition. Provide adequate ventilation. Do not breathe gas/fumes/vapour/spray. See protective measures under point 7 and 8.

### 6.2 Environmental precautions

Cover drains. If the product contaminates lakes, rivers or sewages, inform appropriate authorities in accordance with local regulations.

### 6.3 Methods and material for containment and cleaning up

#### For cleaning up

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Clean with detergents. Avoid solvent cleaners.

### 6.4 Reference to other sections

None

## 7. Handling and storage

### 7.1 Precautions for safe handling

Prevent the creation of inflammable or explosive concentrations of vapour in air and avoid vapour concentrations higher than the OEL (=Occupational Exposure Limit). Only use the material in places where open light, fire and other flammable sources can be kept away. Take precautionary measures against static discharges. Wear anti-static footwear and clothing It is recommended

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to design all work processes always so that the following is excluded: Skin contact Eye contact Do not breathe gas/fumes/vapour/spray. When using do not eat, drink, smoke, sniff. Comply with the health and safety at work laws. For personal protection see Section 8. Respiratory protection necessary at: spray application

## Protective measures

### Measures to prevent fire

Vapours are heavier than air, spread along floors and form explosive mixtures with air.

## 7.2 Conditions for safe storage, including any incompatibilities

### Requirements for storage rooms and vessels

Always close containers tightly after the removal of product. Never use pressure to empty container. Only allow access to authorised staff. Keep away from sources of ignition - No smoking. Always close containers tightly after the removal of product. Soils have to conform to the "Guidelines for avoidance of ignition hazards due to electrostatic charges (TRGS 727)".

### Hints on joint storage

Storage class ( D ) : 3

Storage class (TRGS 510) ( D ) : 3

### Do not store together with

Do not store together with Acid alkali Oxidizing agent

### Further information on storage conditions

Always keep in containers of same material as the original one. See also instructions on the label. Avoid heating and direct sunlight. Keep away from sources of ignition - No smoking. Keep in a cool, well-ventilated place. Keep in a cool, well-ventilated place. Comply with the health and safety at work laws.

## 7.3 Specific end use(s)

None

## 8. Exposure controls/personal protection

### 8.1 Control parameters

#### Occupational exposure limit values

XYLENE ; CAS No. : 1330-20-7

Limit value type (country of origin) : MAK ( CH )  
Limit value : 435 mg/m<sup>3</sup> / 100 ml/m<sup>3</sup>  
Remark : H B  
Version : 14.05.2019

Limit value type (country of origin) : STEL ( CH )  
Limit value : 870 mg/m<sup>3</sup> / 200 ml/m<sup>3</sup>  
Remark : H B  
Version : 14.05.2019

Limit value type (country of origin) : TRGS 900 ( D )  
Limit value : 100 ppm / 440 mg/m<sup>3</sup>  
Peak limitation : 2(II)  
Remark : H  
Version : 06.11.2015

Limit value type (country of origin) : STEL ( EC )  
Limit value : 100 ppm / 442 mg/m<sup>3</sup>  
Remark : H  
Version : 08.06.2000

Limit value type (country of origin) : TWA ( EC )  
Limit value : 50 ppm / 221 mg/m<sup>3</sup>  
Remark : H  
Version : 08.06.2000

ETHYLBENZENE ; CAS No. : 100-41-4

Limit value type (country of origin) : MAK ( CH )  
Limit value : 220 mg/m<sup>3</sup> / 50 ml/m<sup>3</sup>  
Remark : H OL B

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Version : 14.05.2019  
Limit value type (country of origin) : STEL ( CH )  
Limit value : 220 mg/m<sup>3</sup> / 50 ml/m<sup>3</sup>  
Remark : H OL B  
Version : 14.05.2019  
Limit value type (country of origin) : TRGS 900 ( D )  
Limit value : 20 ppm / 88 mg/m<sup>3</sup>  
Peak limitation : 2(II)  
Remark : H, Y  
Version : 06.11.2015  
Limit value type (country of origin) : STEL ( EC )  
Limit value : 200 ppm / 884 mg/m<sup>3</sup>  
Remark : H  
Version : 08.06.2000  
Limit value type (country of origin) : TWA ( EC )  
Limit value : 100 ppm / 442 mg/m<sup>3</sup>  
Remark : H  
Version : 08.06.2000

#### ZINC OXIDE ; CAS No. : 1314-13-2

Limit value type (country of origin) : MAK ( CH )  
Parameter : A: respirable fraction  
Limit value : 3 mg/m<sup>3</sup>  
Version : 14.05.2019  
Limit value type (country of origin) : STEL ( CH )  
Parameter : A: respirable fraction  
Limit value : 3 mg/m<sup>3</sup>  
Version : 14.05.2019

#### ALUMINIUM POWDER (STABILIZED) ; CAS No. : 7429-90-5

Limit value type (country of origin) : MAK ( CH )  
Parameter : A: respirable fraction  
Limit value : 3 mg/m<sup>3</sup>  
Remark : B  
Version : 14.05.2019

#### NAPHTHA (PETROLEUM), HYDROTREATED HEAVY ; CAS No. : 64742-48-9

Limit value type (country of origin) : MAK ( CH )  
Limit value : 300 mg/m<sup>3</sup> / 50 ml/m<sup>3</sup>  
Version : 14.05.2019  
Limit value type (country of origin) : STEL ( CH )  
Limit value : 600 mg/m<sup>3</sup> / 100 ml/m<sup>3</sup>  
Version : 14.05.2019

### Biological limit values

#### XYLENE ; CAS No. : 1330-20-7

Limit value type (country of origin) : TRGS 903 ( D )  
Parameter : Xylene / Whole blood (B) / End of exposure or end of shift  
Limit value : 1.5 mg/l  
Version : 31.03.2004

Limit value type (country of origin) : TRGS 903 ( D )  
Parameter : Methylhippuric acid / Urine (U) / End of exposure or end of shift  
Limit value : 2 g/l  
Version : 31.03.2004

#### ETHYLBENZENE ; CAS No. : 100-41-4

Limit value type (country of origin) : TRGS 903 ( D )  
Parameter : Ethylbenzene / Whole blood (B) / End of exposure or end of shift

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Limit value : 1 mg/l  
Version : 31.03.2004  
Limit value type (country of origin) : TRGS 903 ( D )  
Parameter : Mandelic acid + Phenylglyoxyl acid / Urine (U) / End of exposure or end of shift  
Limit value : 800 mg/g Kr  
Version : 31.03.2004  
ALUMINIUM POWDER (STABILIZED) ; CAS No. : 7429-90-5  
Limit value type (country of origin) : TRGS 903 ( D )  
Parameter : Aluminium / Urine (U) / At long term exposure: after several previous shifts  
Limit value : 50 µg/g Kr  
Version : 29.03.2019

## 8.2 Exposure controls

### Appropriate engineering controls

If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn.

### Personal protection equipment

#### Eye/face protection

Eye glasses with side protection

#### Skin protection

##### Hand protection

Tested protective gloves must be worn Use protective skin cream before handling the product.

##### Body protection

Wear anti-static footwear and clothing Following skin contact Wash immediately with: Water and soap Do not wash with: Solvents/Thinner

#### Respiratory protection

If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn.

## 9. Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

**Appearance :** Liquid

**Colour :** Coloured.

**Odour :** Like solvent.

#### Safety characteristics

<b>Initial boiling point and boiling range :</b>	( 1013 hPa )	not applicable
<b>Flash point :</b>		24 °C
<b>Vapour pressure :</b>	( 50 °C )	not applicable
<b>Density :</b>	( 20 °C )	1.6 g/cm <sup>3</sup>
<b>Solvent separation test :</b>	( 20 °C )	< 3 %
<b>Flow time :</b>	( 20 °C )	> 80 s

DIN-cup 4 mm

### 9.2 Other information

None

## 10. Stability and reactivity

### 10.1 Reactivity

No information available.

### 10.2 Chemical stability

No information available.

### 10.3 Possibility of hazardous reactions

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No information available.

## 10.4 Conditions to avoid

The product is chemically stable under recommended conditions of storage, use and temperature.

## 10.5 Incompatible materials

Oxidizing agent Exothermic reaction with: Alkali (lye), concentrated. Acid, concentrated.

## 10.6 Hazardous decomposition products

When exposed to high temperatures may produce hazardous decomposition products such as carbon monoxide and dioxide, smoke, oxides of nitrogen.

## 11. Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

##### Acute oral toxicity

Parameter :	LD50 ( XYLENE ; CAS No. : 1330-20-7 )
Exposure route :	Oral
Species :	Rat
Effective dose :	8700 mg/kg
Parameter :	LD50 ( ETHYLBENZENE ; CAS No. : 100-41-4 )
Exposure route :	Oral
Species :	Rat
Effective dose :	3500 mg/kg
Parameter :	LD50 ( ZINC OXIDE ; CAS No. : 1314-13-2 )
Exposure route :	Oral
Species :	Rat
Effective dose :	7950 mg/kg

##### Acute dermal toxicity

Parameter :	LD50 ( XYLENE ; CAS No. : 1330-20-7 )
Exposure route :	Dermal
Species :	Rabbit
Effective dose :	2000 mg/kg
Parameter :	LD50 ( ETHYLBENZENE ; CAS No. : 100-41-4 )
Exposure route :	Dermal
Species :	Rabbit
Effective dose :	5000 mg/kg

##### Acute inhalation toxicity

Parameter :	LC50 ( XYLENE ; CAS No. : 1330-20-7 )
Exposure route :	Inhalation
Species :	Rat
Effective dose :	6350 mg/l
Parameter :	LC50 ( ZINC OXIDE ; CAS No. : 1314-13-2 )
Exposure route :	Inhalation
Species :	Mouse
Effective dose :	2500 mg/m <sup>3</sup>

### 11.4 Other adverse effects

Exposure to component solvents vapours concentration in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on kidney, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness. Prolonged or repeated skin contact may cause removal of natural fat from the skin resulting in dermatitis (skin inflammation). The liquid splashed in the eyes may cause irritation and reversible damage. There no data available on the preparation itself. The preparation has been assessed following the conventional method of the Dangerous Preparations Directive 1999/45/EC and classified for toxicological hazards accordingly. See Sections 2 and 15 for details.

## 12. Ecological information

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## 12.1 Toxicity

No information available.

## 12.2 Persistence and degradability

No information available.

## 12.3 Bioaccumulative potential

No information available.

## 12.4 Mobility in soil

No information available.

## 12.5 Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

## 12.6 Other adverse effects

No information available.

## 12.7 Additional ecotoxicological information

No information available. Do not allow to enter into surface water or drains.

## 13. Disposal considerations

### 13.1 Waste treatment methods

No information available.

## 14. Transport information

### 14.1 UN number

UN 1263

### 14.2 UN proper shipping name

Land transport (ADR/RID)

PAINT

Sea transport (IMDG)

PAINT ( ZINC OXIDE )

Air transport (ICAO-TI / IATA-DGR)

PAINT

### 14.3 Transport hazard class(es)

Land transport (ADR/RID)

Class(es) : 3

Classification code : F1

Hazard identification number (Kemler No.) : 30

Tunnel restriction code : D/E

Special provisions : LQ 5 I · E 1 · ADR : - (<= 5 I ; 2.2.3.1.5 + N)

Hazard label(s) : 3 / N

Sea transport (IMDG)

Class(es) : 3

EmS-No. : F-E / S-E

Special provisions : LQ 5 I · E 1

Hazard label(s) : 3 / N

Air transport (ICAO-TI / IATA-DGR)

Class(es) : 3

Special provisions : E 1

Hazard label(s) : 3

### 14.4 Packing group



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## 14.5 Environmental hazards

Land transport (ADR/RID) : Yes  
Sea transport (IMDG) : Yes (P)  
Air transport (ICAO-TI / IATA-DGR) : Yes

## 14.6 Special precautions for user

None

## 15. Regulatory information

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

#### EU legislation

##### Authorisations and/or restrictions on use

##### Restrictions on use

Use restriction according to REACH annex XVII, no. : 3, 40

#### National regulations

##### Water hazard class (WGK)

Classification according to AwSV - Class ( D ) : 2 (Obviously hazardous to water)

### 15.2 Chemical safety assessment

No information available.

## 16. Other information

### 16.1 Indication of changes

02. Labelling according to Regulation (EC) No. 1272/2008 [CLP] · 03. Hazardous ingredients · 08. Occupational exposure limit values · 14. UN proper shipping name - Sea transport (IMDG) · 14. Transport hazard class(es) - Land transport (ADR/RID) · 15. Restrictions on use · 15. Water hazard class (WGK)

### 16.2 Abbreviations and acronyms

None

### 16.3 Key literature references and sources for data

None

### 16.4 Classification for mixtures and used evaluation method according to regulation (EC) No 1272/2008 [CLP]

No information available.

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

H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.

### 16.6 Training advice

None

### 16.7 Additional information

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The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material. We have no knowledge or control over the user's working conditions however. The product may not be used for any purpose other than that specified in chapter 1 unless written consent has been obtained. The user is responsible for the observance of all required statutory provisions.

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