

SAFETY DATA SHEET

in acc. with Regulation (EU) No. 2015/830

Revision Date: 04/02/2019

Tradename: CULR™ Art Pigment for Epoxy – Cosmic Purple

page 1/21

SECTION 1: IDENTIFICATION OF SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING

1.1. Product identifier

Tradename: CULR™ Art Pigment for Epoxy – Cosmic Purple

Chemical

characterisation: C.I. Pigment Violet 23 and Calciumcarbonat in aqueous dispersion, contenting Polyglykol and 1,2-Propandiol.

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

Relevant identified uses of the substance or mixture:

Industry sector: Industrial Performance Chemicals
Paints, lacquers and varnishes industry
Polymers industry
Printing Inks Industry

Type of use: Colourant preparation

1.3. Details of the supplier of the safety data sheet

Identification of the company:

Easy Composites Ltd
Unit 39 Park Hall Business Village
Stoke on Trent, ST3 5XA. United Kingdom.
Phone: +44 (0)1782 4544499

Information to substance / mixture:

Division: Technical
E-mail: technical@glasscastresin.com

1.4. Emergency telephone number

Emergency CONTACT (Office Hours) Phone: +44 (0)1782 4544499

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance / mixture

Classification according CLP regulation (Regulation (EC) No. 1272/2008, as amended):

| Category of danger | Category Hazard Symbol | H-Phrases |
|--------------------|------------------------|-----------|
| --- | --- | --- |

Not a hazardous substance or mixture.

2.2. Label elements

Labelling according CLP regulation (Regulation (EC) No. 1272/2008, as amended):

Not a hazardous substance or mixture.

Additional Labelling:

EUH 208 contains mixture of: 1,2-Benzisothiazol-3(2H)-one,
mixture of: 5-chloro-2-methyl-2H-isothiazol-3-one
and 2-methyl-2H-isothiazol-3-one(3:1).

May produce an allergic reaction.

EUH210: Safety data sheet available on request.

2.3. Other hazards

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.

No hazards to be specially mentioned.

Safety Data Sheet

in acc. with Regulation (EU) No. 2015/830

Revision Date: 04/02/2019

Tradename: **CULR™ Art Pigment for Epoxy – Cosmic Purple**

page 2/21

SECTION 3: COMPOSITION / INFORMATION TO INGREDIENTS

3.1. Mixtures

Hazardous ingredients:

Alcohols, C16-18 and C18-unsaturated, ethoxylated (8 EO)

Concentration: ≥ 9,2 - ≤ 12,8 %

CAS-Number: 68920-66-1

EC-Number: 500-236-9

GHS classification EC:

| | | |
|-----------------------------------|------------|------|
| Skin irritation | Category 2 | H315 |
| Acute aquatic toxicity | Category 1 | H400 |
| Chronic aquatic toxicity | Category 3 | H412 |
| M-Factor (Acute aquatic toxicity) | | 1 |

C11-Oxalcohol-heptaglykolethersulfate, sodium salt

Concentration: ≥ 1,0 - ≤ 3,0 %

CAS-Number: 219756-63-5

EC-Number: 639-480-7

GHS classification EC:

| | | |
|--------------------|------------|------|
| Skin irritation | Category 2 | H315 |
| Serious eye damage | Category 1 | H318 |

1,2-Benzisothiazolin-3-on

Concentration: ≥ 0,0025 - ≤ 0,025 %

CAS-Number: 2634-33-5

EC-Number: 220-120-9

INDEX-No.: 613-088-00-6

Registrationnumber: 01-2120761540-60

GHS classification EC:

| | | |
|-------------------------------------|------------|------|
| Acute toxicity | Category 4 | H302 |
| Fatal if inhaled | Category 2 | H330 |
| Skin irritation | Category 2 | H315 |
| May cause an allergic skin reaction | Category 1 | H317 |
| Serious eye damage | Category 1 | H318 |
| Acute aquatic toxicity | Category 1 | H400 |
| Chronic aquatic toxicity | Category 2 | H411 |

Mixture of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one(3:1)

Concentration: ≥ 0,0002 - ≤ 0,0015 %

CAS-Number: 55965-84-9

EC-Number: 611-341-5

INDEX-No.: 613-167-005

Registrationnumber: 01-2120764691-48

GHS classification EC:

| | | |
|-------------------------------------|-------------|------|
| Acute toxicity | Category 3 | H301 |
| Acute toxicity | Category 2 | H310 |
| Fatal if inhaled | Category 2 | H330 |
| Causes severe skin burns and eye d. | Category 1B | H314 |
| May cause an allergic skin reaction | Category 1 | H317 |
| Acute aquatic toxicity | Category 1 | H400 |
| Chronic aquatic toxicity | Category 1 | H410 |

The text of H-phrases is shown in section 16.

Safety Data Sheet

in acc. with Regulation (EU) No. 2015/830

Revision Date: 04/02/2019

Tradename: CULR™ Art Pigment for Epoxy – Cosmic Purple

page 3/21

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

General information:

Get medical advice/ attention if you feel unwell.

After inhalation:

Move the victim to fresh air.

If you feel unwell, seek medical advice (show the label where possible).

After contact with skin:

In case of contact with skin, clean with plenty of soap and water.

After contact with eyes:

In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

After ingestion:

If swallowed, seek medical advice immediately and show this container or label.

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

Symptoms:

None known.

Hazards:

None known.

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

Treatment:

Treat symptomatically.

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media:

Water spray jet

Dry powder

Carbon dioxide (CO₂)

Alcohol resistant foam

Extinguishing media that must not be used for safety reasons:

High volume water jet

5.2. Special hazards arising from the substance or mixture

In case of fires, hazardous combustion gases are formed:

Carbon oxides (CO_x)

Nitrogen oxides (NO_x)

5.3. Advice for firefighters

Special protective equipment for firefighting:

Use self-contained breathing apparatus.

Further information:

Wear suitable protective equipment.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Wear suitable personal protective equipment.

6.2. Environment precautions

The product should not be allowed to enter drains, water courses or the soil.

Safety Data Sheet

in acc. with Regulation (EU) No. 2015/830

Revision Date: 04/02/2019

Tradename: CULR™ Art Pigment for Epoxy – Cosmic Purple

page 4/21

6.3. Methods and material for containment and cleaning up

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).

Treat recovered material as described in the section "Disposal considerations".

6.4. Reference to other sections

Additional information:

Information regarding safe handling, see chapter 7.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Advice on safe handling:

When used and handled appropriately no special measures are needed.

Hygiene measures:

Wash hands before breaks and at the end of workday.

Use protective skin cream before handling the product.

Take off immediately all contaminated clothing and wash it before reuse.

Advice on protection against fire and explosion:

Normal measures for preventive fire protection.

7.2. Conditions for safe storage, including any incompatibilities

Further information on storage conditions:

Keep containers tightly closed in a cool, well-ventilated place.

Handle and open container with care.

Keep away from flames and sparks.

Storage stability:

Minimum 36 months.

7.3. Specific end use(s)

No further recommendations.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1. Control parameters

Exposure limit values:

Exposure limit values are not available.

DNEL / DMEL-values:

C.I. Pigment Violet 23

EC number: 606-790-9

CAS number: 215247-95-3

| Route of exposure | End use | Potential health effects | Value | Remarks |
|-------------------|--------------------|----------------------------|----------------------|---------|
| Dermal | Workers | Long-term systemic effects | 42 mg/kg bw/day | DNEL |
| Inhalation | Workers | Long-term systemic effects | 49 mg/m ³ | DNEL |
| Inhalation | Workers | Long-term local effects | 3 mg/m ³ | DNEL |
| Dermal | General population | Long-term systemic effects | 25 mg/kg bw/day | DNEL |
| Oral | General population | Long-term systemic effects | 25 mg/kg bw/day | DNEL |

Safety Data Sheet

in acc. with Regulation (EU) No. 2015/830

Revision Date: 04/02/2019

Tradename: CULR™ Art Pigment for Epoxy – Cosmic Purple

page 5/21

1,2-Benzisothiazol-3(2H)-one

EC-Number: 220-120-9

CAS-Number: 2634-33-5

| Route of exposure | End use | Potential health effects | Value | Remarks |
|-------------------|-----------|----------------------------|------------------------|---------|
| Inhalation | Workers | Long-term systemic effects | 6,81 mg/m ³ | DNEL |
| Dermal | Workers | Long-term systemic effects | 0,966 mg/kg bw/day | DNEL |
| Inhalation | Consumers | Long-term systemic effects | 1,2 mg/m ³ | DNEL |
| Dermal | Consumers | Long-term systemic effects | 0,345 mg/kg bw/day | DNEL |

Silica, amorphous, fumed, crystalline free

EC-Number: 601-216-3

CAS-Number: 112945-52-5

| Route of exposure | End use | Potential health effects | Value | Remarks |
|-------------------|---------|--------------------------|---------------------|---------|
| Inhalation | Workers | Long-term local effects | 4 mg/m ³ | DNEL |

PNEC-values:

Silica, amorphous, fumed, crystalline free

EC-Number: 601-216-3

CAS-Number: 112945-52-5

| Environmental compartment | Value |
|---------------------------|---------------------|
| Secondary poisoning | 60.000 mg/kg (food) |

1,2-Benzisothiazol-3(2H)-one

EC-Number: 220-120-9

CAS-Number: 2634-33-5

| Environmental compartment | Value |
|---------------------------|---------------------------------|
| Fresh water | 0,00403 mg/l |
| Marine water | 0,000403 mg/l |
| Intermittend use/release | 0,0011 mg/l |
| Sewage treatment plant | 1,03 mg/l |
| Fresh water sediment | 0,0499 mg/kg dry weight (d.w.) |
| Marine sediment | 0,00499 mg/kg dry weight (d.w.) |
| Soil | 3 mg/kg dry weight (d.w.) |

Mixture of: 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)

EC-Number: 611-341-5

CAS-Number: 55965-84-9

| Environmental compartment | Value |
|---------------------------|-------------|
| Fresh water | 0,049 µg/l |
| Marine water | 0,0098 µg/l |
| Sewage treatment plant | 0,045 µg/l |
| Soil | 0,009 µg/l |

8.2. Exposure controls

Appropriate engineering controls:

Handle only in a place equipped with local exhaust (or other appropriate exhaust).

General protective measures:

Wear suitable protective equipment.

Safety Data Sheet

in acc. with Regulation (EU) No. 2015/830

Revision Date: 04/02/2019

Tradename: CULR™ Art Pigment for Epoxy – Cosmic Purple

page 6/21

Respiratory protection:

When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

Hand protection:

Nitrile rubber

Take note of the information given by the producer concerning permeability and break through times, and of special workplace conditions (mechanical strain, duration of contact).

Eye protection:

Safety glasses

Body protection:

Wear suitable protective equipment.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

| | |
|--|-------------------|
| Physical state: | liquid |
| Form: | liquid |
| Colour: | violet |
| Odour: | not significant |
| Odour threshold: | not required |
| pH value: | not measured |
| Melting point: | not applicable |
| Boiling point: | approx. 100 °C |
| Flash point: | > 100 °C |
| Evaporation rate: | not determined |
| Flammability: | not determined |
| Lower explosion limit: | not determined |
| Upper explosive limit: | not determined |
| Combustion number: | not applicable |
| Minimum ignition energy: | not determined |
| Vapour pressure: | not determined |
| Vapour density relative to air: | not determined |
| Relative Density: | no data available |
| Solubility in water: | miscible |
| Octanol/ water partition coefficient (log Pow): | not determined |
| Ignition temperature: | not determined |
| Thermal decomposition: | > 100 °C |
| Viscosity (dynamic): | not tested |
| Oxidizing properties: | no data available |

9.2. Other information

| | |
|----------|--------------------------------|
| Density: | 1,22 g/cm ³ (20 °C) |
|----------|--------------------------------|

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

No dangerous reaction known under conditions of normal use.

10.2. Chemical Stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reaction known under conditions of normal use.
Stable.

Safety Data Sheet

in acc. with Regulation (EU) No. 2015/830

Revision Date: 04/02/2019

Tradename: CULR™ Art Pigment for Epoxy – Cosmic Purple

page 7/21

10.4. Conditions to avoid

None known.

10.5. Incompatible Materials

No data available.

10.6. Hazardous decomposition products

No decomposition if stored and applied as directed.

SECTION 11: TOXICOLOGIC INFORMATION

11.1. Information on toxicological effects

Acute toxicity

Informations related to the product:

Acute oral toxicity: Remarks: no data available

Acute inhalation toxicity: Remarks: no data available

Acute dermal toxicity: Remarks: no data available

Informations related to the component 1,2-Benzisothiazol-3(2H)-one:

Acute oral toxicity: LD50 (Rat, male and female): 670 - 784 mg/kg

Method: OECD Test Guideline 401

GLP: yes

Acute inhalation toxicity: LC50 (Rat, male and female): 0,5 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist

Method: OPPTS 870.1300

GLP: yes

Acute dermal toxicity: LD50 (Rat, male and female): > 2.000 mg/kg

GLP: yes

Assessment: The substance or mixture has no acute dermal toxicity.

Informations related to the component mixture of: 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1):

Acute oral toxicity: LD50 (Rat): 64 mg/kg

Acute inhalation toxicity: LC50 (Rat, male and female): 0,171 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist

Acute dermal toxicity: LD50 (Rabbit): 92,4 mg/kg

Skin corrosion/irritation

Informations related to the product:

Species: Rabbit

Method: OECD Test Guideline 404

Result: No skin irritation

Remarks: The toxicological data has been taken from products of similar composition.

Informations related to the component Alcohols, C16-18 and C18-unsaturated, ethoxylated:

Result: Irritating to skin.

Informations related to the component 1,2-Benzisothiazol-3(2H)-one:

Species: Rabbit

Exposure time: 4 h

Result: Irritating to skin.

GLP: yes

Informations related to the component mixture of: 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one(3:1):

Species: Rabbit

Result: Causes burns.

Safety Data Sheet

in acc. with Regulation (EU) No. 2015/830

Revision Date: 04/02/2019

Tradename: CULR™ Art Pigment for Epoxy – Cosmic Purple

page 8/21

Serious eye damage/eye irritation

Informations related to the product:

Species: rabbit eye
Method: OECD Test Guideline 405
Result: No eye irritation
Remarks: The toxicological data has been taken from products of similar composition.

Informations related to the component 1,2-Benzisothiazol-3(2H)-one:

Species: rabbit eye
Exposure time: 2,9 h - 11 d
Result: Risk of serious damage to eyes.
GLP: yes

Informations related to the component mixture of: 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one(3:1):

Species: rabbit eye
Result: Risk of serious damage to eyes.

Respiratory or skin sensitisation

Informations related to the product:

Remarks: no data available

Informations related to the component 1,2-Benzisothiazol-3(2H)-one:

Test Type: Guinea pig maximization test
Exposure routes: Dermal
Species: Guinea pig
Method: Other
Result: May cause sensitisation by skin contact.
GLP: yes

Informations related to the component mixture of: 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one(3:1):

Species: Guinea pig
Method: Other
Result: The product is a skin sensitizer, sub-category 1A.
Assessment: Toxic if swallowed,
Fatal in contact with skin,
Fatal if inhaled,
Causes severe skin burns and eye damage.
May cause an allergic skin reaction.

Germ cell mutagenicity

Informations related to the product:

Genotoxicity in vitro: Remarks: no data available

Germ cell mutagenicity-
Assessment: No information available.

Informations related to the component 1,2-Benzisothiazol-3(2H)-one:

Genotoxicity in vitro: Test Type: Mouse lymphoma assay
Test system: mouse lymphoma cells
Concentration: 0,1 - 12,8 µg/ml

Metabolic activation:
with and without metabolic
activation:

Method: OECD Test Guideline 476
Result: negative
GLP: yes
Test Type: Ames test

Safety Data Sheet

in acc. with Regulation (EU) No. 2015/830

Revision Date: 04/02/2019

Tradename: CULR™ Art Pigment for Epoxy – Cosmic Purple

page 9/21

| | |
|---|---|
| | Test system: Salmonella typhimurium Concentration: 0,064 - 200 µg/plate |
| Metabolic activation: with and without metabolic activation: | Method: OECD Test Guideline 471 Result: negative GLP: yes Test Type: Chromosome aberration test in vitro Test system: Human lymphocytes Concentration: 1 - 40 µg/ml |
| Metabolic activation: with and without metabolic activation: | Method: OECD Test Guideline 473 Result: positive GLP: yes |
| Genotoxicity in vivo: | Test Type: Other Species: Rat (male) Strain: wistar Cell type: Liver cells Application Route: Ingestion Exposure time: single dose Dose: 560 - 1400 mg/kg Method: OECD Test Guideline 486 Result: negative GLP: yes Test Type: Micronucleus test Species: Mouse (male and female) Strain: CD1 Cell type: Bone marrow Application Route: Ingestion Exposure time: single dose Dose: 125-250-500-1000-2000-5000mg/kg Method: OECD Test Guideline 474 Result: negative GLP: yes |
| Germ cell mutagenicity- Assessment: | Did not show mutagenic effects in animal experiments. |
| <u>Informations related to the component mixture of: 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one(3:1):</u> | |
| Genotoxicity in vitro: | Test Type: In vitro study |
| Metabolic activation: with and without metabolic activation: | Result: Conflicting results have been seen in different studies. |
| Genotoxicity in vivo: | Test Type: Micronucleus test Species: Rat Cell type: Bone marrow Application Route: Oral Exposure time: ≤ 5 d Dose: 1-5 x ≤ 28 mg/kg Result: negative Test Type: Micronucleus test Species: Mouse Application Route: Oral Exposure time: ≤ 5 d |

Safety Data Sheet

in acc. with Regulation (EU) No. 2015/830

Revision Date: 04/02/2019

Tradename: CULR™ Art Pigment for Epoxy – Cosmic Purple

page 10/21

Dose: 1-5 x ≤ 20 - 30 mg/kg
Result: negative

Germ cell mutagenicity-
Assessment: In vivo tests did not show mutagenic effects

Carcinogenicity

Informations related to the product:

Carcinogenicity -
Assessment: No information available.

Informations related to the component 1,2-Benzisothiazol-3(2H)-one:

Carcinogenicity -
Assessment: Not applicable

Informations related to the component mixture of: 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one(3:1):

Carcinogenicity -
Assessment: No evidence of carcinogenicity in animal studies.

Reproductive toxicity

Informations related to the product:

Reproductive toxicity -
Assessment: No information available.

Informations related to the component 1,2-Benzisothiazol-3(2H)-one:

Effects on fertility: Species: Rat, male
Application Route: oral (fed)
Dose: 18,5 - 97,8 mg/kg
General Toxicity - Parent: NOAEL: 18,5 mg/kg
body weight
General Toxicity F1: NOAEL: 48 mg/kg body weight
Method: Other
GLP: yes

Species: Rat, female
Application Route: oral (feed)
Dose: 27,0 - 114,8 mg/kg
General Toxicity - Parent: NOAEL: 27 mg/kg
body weight
General Toxicity F1: NOAEL: 56,6 mg/kg body weight
Method: Other
GLP: yes

Effects on foetal development: Species: Rat, female
Application Route: oral (gavage)
Dose: 10 - 40 - 100 mg/kg
General Toxicity Maternal: NOAEL: 10 mg/kg
body weight
Teratogenicity: NOAEL: 40 mg/kg body weight
Method: Directive 67/548/EEC, Annex V, B.31.
GLP: yes

Reproductive toxicity – Assessment: No evidence of adverse effects on sexual function
and fertility, or on development, based on animal
experiments.
Embryotoxicity classification not possible from current
data.

Informations related to the component mixture of: 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one(3:1):

Effects on fertility: Species: Rat, male and female
Application Route: Drinking water
Dose: 25 - 75 - 225 ppm

Safety Data Sheet

in acc. with Regulation (EU) No. 2015/830

Revision Date: 04/02/2019

Tradename: **CULR™ Art Pigment for Epoxy – Cosmic Purple**

page 11/21

| | |
|-------------------------------------|---|
| | General Toxicity - Parent: NOAEL: 16,3 - 24,7 mg/kg body weight |
| | General Toxicity F1: NOAEL: 16,3 - 24,7 mg/kg body weight |
| | Method: Other |
| | GLP: yes |
| | Species: Rat, male and female |
| | Application Route: Drinking water |
| | Dose: 30 - 100 - 300 ppm |
| | General Toxicity - Parent: NOAEL: 2,8 - 4,4 mg/kg body weight |
| | General Toxicity F1: NOAEL: 22,7 - 28 mg/kg body weight |
| | General Toxicity F2: NOAEL: 35,7 - 39,1 mg/kg body weight |
| | Method: OECD Test Guideline 416 |
| | GLP: yes |
| Effects on foetal development: | Species: Rat, male and female |
| | Application Route: oral (gavage) |
| | Dose: ≤ 15 mg/kg |
| Developmental Toxicity: | NOAEL: 15 mg/kg body weight |
| | Method: Other |
| | Species: Rat, male and female |
| | Application Route: oral (gavage) |
| | General Toxicity Maternal: NOAEL: ≤ 3,95 mg/kg body weight |
| | Method: Other |
| Reproductive toxicity – Assessment: | Weight of evidence does not support classification for reproductive toxicity |
| | Embryotoxicity classification not possible from current data. |

STOT - single exposure

Informations related to the component product:

Remarks: no data available

Informations related to the component 1,2-Benzisothiazol-3(2H)-one:

Assessment: The substance or mixture is not classified as specific
target organ toxicant, single exposure.

Informations related to the component mixture of: 5-chloro-2-methyl-2H-isothiazol-3-one and
2-methyl-2H-isothiazol-3-one(3:1):

Assessment: The substance or mixture is not classified as specific
target organ toxicant, single exposure.

STOT - repeated exposure

Informations related to the component product:

Remarks: no data available

Informations related to the component 1,2-Benzisothiazol-3(2H)-one:

Assessment: The substance or mixture is not classified as specific
target organ toxicant, repeated exposure.

Informations related to the component mixture of: 5-chloro-2-methyl-2H-isothiazol-3-one and
2-methyl-2H-isothiazol-3-one(3:1):

Assessment: The substance or mixture is not classified as specific
target organ toxicant, repeated exposure.

Safety Data Sheet

in acc. with Regulation (EU) No. 2015/830

Revision Date: 04/02/2019

Tradename: CULR™ Art Pigment for Epoxy – Cosmic Purple

page 12/21

Repeated dose toxicity

Informations related to the product:

Remarks: This information is not available.

Informations related to the component 1,2-Benzisothiazol-3(2H)-one:

Species: Dog, male and female
NOAEL: 5 mg/kg
LOAEL: 20 mg/kg
Application Route: oral (gavage)
Exposure time: 90 d
Number of exposures: daily
Dose: 5 - 20 - 50 mg/kg
Group: yes
Method: 88/302/EC
GLP: yes

Informations related to the component mixture of: 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one(3:1):

Species: Rat, male and female
NOAEL: 16,3 - 24,7 mg/kg
ApplicationRoute: Drinking water
Exposure time: 90 d
Number of exposures: daily
Dose: 25 - 75 - 225 ppm
Group: yes
Method: Other
GLP: yes

Aspiration toxicity

Informations related to the product:

no data available

Informations related to the component 1,2-Benzisothiazol-3(2H)-one:

No aspiration toxicity classification

Informations related to the component mixture of: 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one(3:1):

No aspiration toxicity classification

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity:

Informations related to the product:

Toxicity to fish: Remarks: no data available

Toxicity to daphnia and other aquatic invertebrates: Remarks: no data available

Toxicity to algae: Remarks: no data available

Toxicity to fish (Chronic toxicity): Remarks: no data available

Toxicity to microorganisms: Remarks: no data available

Informations related to the component Alcohols, C16-18 and C18-unsaturated, ethoxylated:

M-Factor (Acute aquatic toxicity): 1

Ecotoxicology Assessment

Acute aquatic toxicity: Very toxic to aquatic life.

Chronic aquatic toxicity: Harmful to aquatic life with long lasting effects.

Informations related to the component 1,2-Benzisothiazol-3(2H)-one:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 2,18 mg/l
Exposure time: 96 h

Safety Data Sheet

in acc. with Regulation (EU) No. 2015/830

Revision Date: 04/02/2019

Tradename: CULR™ Art Pigment for Epoxy – Cosmic Purple

page 13/21

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|--|--|
| | Test Type: static test Analytical monitoring: yes Method: OECD Test Guideline 203 GLP: yes |
| | LC50 (Cyprinodon variegatus (sheepshead minnow)): approx. 16,7 mg/l Exposure time: 96 h Test Type: static test Analytical monitoring: yes Method: No information available. GLP: yes |
| Toxicity to daphnia and other aquatic invertebrates: | EC50 (Daphnia magna (Water flea)): 2,94 mg/l Exposure time: 48 h Test Type: static test Analytical monitoring: yes Method: OECD Test Guideline 202 GLP: yes |
| | EC0 (Daphnia magna (Water flea)): 0,643 mg/l Exposure time: 48 h Test Type: static test Analytical monitoring: yes Method: OECD Test Guideline 202 GLP: yes |
| | EC50 (Mysidopsis bahia (opossum shrimp)): 0,9893 mg/l Exposure time: 96 h Test Type: static test Analytical monitoring: yes Method: Other GLP: yes Remarks: salt water |
| | NOEC (Mysidopsis bahia (opossum shrimp)): 0,25 mg/l Exposure time: 96 h Test Type: static test Analytical monitoring: yes Method: Other GLP: yes Remarks: salt water |
| Toxicity to algae: | EC50 (Selenastrum capricornutum (green algae)): 0,155 mg/l End point: Growth rate Exposure time: 72 h Analytical monitoring: yes Method: OECD Test Guideline 201 GLP: yes |
| | NOEC (Selenastrum capricornutum (green algae)): 0,055 mg/l End point: Growth rate Exposure time: 72 h Analytical monitoring: yes Method: OECD Test Guideline 201 GLP: yes |
| M-Factor (Acute aquatic toxicity): | 1 |
| Toxicity to microorganisms: | EC50 (activated sludge of a predominantly domestic sewage): 23 mg/l |

Safety Data Sheet

in acc. with Regulation (EU) No. 2015/830

Revision Date: 04/02/2019

Tradename: CULR™ Art Pigment for Epoxy – Cosmic Purple

page 14/21

End point: Bacteria toxicity (respiration inhibition)
Exposure time: 3 h
Test Type: aquatic
Analytical monitoring: no
Method: OECD Test Guideline 209
GLP: yes
Remarks: The details of the toxic effect relate to the nominal concentration.

EC50: > 811,5 mg/kg dry weight (d.w.)
Exposure time: 28 d
Test Type: Soil
Analytical monitoring: yes
Method: OECD 216
GLP: yes
Remarks: The details of the toxic effect relate to the nominal concentration.

NOEC: 263,7 mg/kg dry weight (d.w.)
Exposure time: 28 d
Test Type: Soil
Analytical monitoring: yes
Method: OECD 216
GLP: yes
Remarks: The details of the toxic effect relate to the nominal concentration.

Toxicity to fish
(Chronic toxicity):

NOEC: 0,21 mg/l
Exposure time: 28 d
Species: *Oncorhynchus mykiss* (rainbow trout)
Analytical monitoring: yes
Method: OECD Test Guideline 215
GLP: yes

Toxicity to daphnia and other
aquatic invertebrates
(Chronic toxicity):

NOEC: 1,2 mg/l
End point: Reproduction rate
Exposure time: 21 d
Species: *Daphnia magna* (Water flea)
Analytical monitoring: yes
Method: OECD Test Guideline 211
GLP: yes

NOEC: 1,9 mg/l
End point: Reproduction rate
Exposure time: 21 d
Species: *Daphnia magna* (Water flea)
Analytical monitoring: yes
Method: OECD Test Guideline 211
GLP: yes

Toxicity to soil dwelling
organisms:

Test Type: artificial soil
LC50: > 410,6 mg/kg
Exposure time: 14 d
End point: mortality
Species: *Eisenia fetida* (earthworms)
Method: OECD Test Guideline 207
GLP: yes

Safety Data Sheet

in acc. with Regulation (EU) No. 2015/830

Revision Date: 04/02/2019

Tradename: CULR™ Art Pigment for Epoxy – Cosmic Purple

page 15/21

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| | Remarks: The details of the toxic effect relate to the nominal concentration. |
| | Test Type: artificial soil NOEC: 234,5 mg/kg Exposure time: 14 d End point: mortality Species: Eisenia fetida (earthworms) Method: OECD Test Guideline 207 GLP:yes |
| Plant toxicity: | Remarks: The details of the toxic effect relate to the nominal concentration. EC50: 340 mg/kg Exposure time: 20 d End point: Growth Species: Phaseolus vulgaris Analytical monitoring: yes Method: OECD Guide-line 208 GLP:yes Remarks: The details of the toxic effect relate to the nominal concentration. NOEC: 90 mg/kg Exposure time: 20 d End point: Growth Species: Phaseolus vulgaris Analytical monitoring: yes Method: OECD Guide-line 208 GLP:yes Remarks: The details of the toxic effect relate to the nominal concentration. EC50: 300 mg/kg Exposure time: 19 d End point: Growth Species: Triticum aestivum (wheat) Analytical monitoring: yes Method: OECD Guide-line 208 GLP: yes Remarks: The details of the toxic effect relate to the nominal concentration. NOEC: 51 mg/kg Exposure time: 19 d End point: Growth Species: Triticum aestivum (wheat) Analytical monitoring: yes Method: OECD Guide-line 208 GLP:yes Remarks: The details of the toxic effect relate to the nominal concentration. |
| Sediment toxicity: | Remarks: not available |
| Ecotoxicology Assessment | |
| Acute aquatic toxicity: | Very toxic to aquatic life. |
| Chronic aquatic toxicity: | Toxic to aquatic life with long lasting effects. |
| <u>Informations related to the component mixture of: 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one(3:1):</u> | |
| Toxicity to fish: | EC50 (Oncorhynchus mykiss (rainbow trout)): 0,22 mg/l Exposure time: 96 h Method: OECD Test Guideline 203 |

Safety Data Sheet

in acc. with Regulation (EU) No. 2015/830

Revision Date: 04/02/2019

Tradename: CULR™ Art Pigment for Epoxy – Cosmic Purple

page 16/21

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|---|---|
| Toxicity to daphnia and other aquatic invertebrates: | EC50 (Daphnia magna (Water flea)): 0,1 mg/l Exposure time: 48 h Method: OECD Test Guideline 202 |
| Toxicity to algae: | EC50 (Skeletonema costatum (marine diatom)): 0,0052 mg/l Exposure time: 48 h Test Type: static test Method: OECD Test Guideline 201 NOEC (Skeletonema costatum (marine diatom)): 0,00049 mg/l Exposure time: 48 h Test Type: static test Method: OECD Test Guideline 201 |
| M-Factor (Acute aquatic toxicity): | 100 |
| Toxicity to microorganisms: | EC50 (activated sludge): 7,92 mg/l Exposure time: 3 h Method: OECD Test Guideline 209 |
| Toxicity to fish (Chronic toxicity): | NOEC: 0,098 mg/l Exposure time: 28 d Species: Oncorhynchus mykiss (rainbow trout) Method: OECD Test Guideline 215 |
| Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity): | NOEC: 0,004 mg/l Exposure time: 21 d Species: Daphnia magna (Water flea) Method: OECD Test Guideline 202 |
| M-Factor (Chronic aquatic toxicity): | 10 |
| Toxicity to soil dwelling organisms: | LC50: 86,6 mg/kg dry weight (d.w.) Exposure time: 14 d Species: Eisenia fetida (earthworms) Method: OECD Test Guideline 207 NOEC: 8,83 mg/kg dry weight (d.w.) Exposure time: 14 d Species: Eisenia fetida (earthworms) OECD Test Guideline 207 |
| Ecotoxicology Assessment | |
| Acute aquatic toxicity: | Very toxic to aquatic life. |
| Chronic aquatic toxicity: | Very toxic to aquatic life with long lasting effects. |

12.2. Persistence and degradability

Informations related to the product:

Biodegradability: no data available

Informations related to the component 1,2-Benzisothiazol-3(2H)-one:

Biodegradability: Test Type: aerobic
Inoculum: activated sludge
Concentration: 1 mg/l
Result: Partially biodegradable.
Exposure time: 63 d
Method: OECD Test Guideline 301C
GLP: yes

Safety Data Sheet

in acc. with Regulation (EU) No. 2015/830

Revision Date: 04/02/2019

Tradename: CULR™ Art Pigment for Epoxy – Cosmic Purple

page 17/21

| | |
|--------------------------------|--|
| Physico-chemical removability: | Remarks: Biodegradable |
| Stability in water: | Test Type: abiotic Degradation half life: 219 d pH: 4 Hydrolysis: at 50 °C Method: OECD Test Guideline 111 GLP: yes |
| | Test Type: abiotic Degradation half life: > 200 d pH: 7 Hydrolysis: at 50 °C Method: OECD Test Guideline 111 GLP: yes |
| | Test Type: abiotic Degradation half life: 145 d pH: 9 Hydrolysis: at 50 °C Method: OECD Test Guideline 111 GLP: yes |
| Photodegradation: | Test Type: water Light source: Xenon lamp Light spectrum: 290 - 400 nm Degradation (direct photolysis): < 1,5 % GLP: yes |
| | Test Type: air Method: calculated GLP: no Remarks: Decomposes rapidly in contact with light. |

Informations related to the component mixture of: 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one(3:1):

| | |
|-------------------|---|
| Biodegradability: | Test Type: aerobic Inoculum: activated sludge Result: Not rapidly biodegradable Method: OECD Test Guideline 301B |
| Photodegradation: | Test Type: water Light source: Sunlight |

12.3. Bioaccumulative potential

Informations related to the product:

Bioaccumulation: no data available

Informations related to the component 1,2-Benzisothiazol-3(2H)-one:

Bioaccumulation: Species: Lepomis macrochirus (Bluegill sunfish)
Exposure time: 56 d
Concentration: 0,1 mg/l
Bioconcentration factor (BCF): 6,62
Method: OECD Test Guideline 305
GLP: no
Remarks: Due to the distribution coefficient n-octanol/water, accumulation in organisms is not expected.

Informations related to the component mixture of: 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one(3:1):

Bioaccumulation: Bioconcentration factor (BCF): 3,6
Method: calculated
Remarks: Does not accumulate in organisms.

Safety Data Sheet

in acc. with Regulation (EU) No. 2015/830

Revision Date: 04/02/2019

Tradename: CULR™ Art Pigment for Epoxy – Cosmic Purple

page 18/21

Partition coefficient
n-octanol/water: log Pow: -0,71 - 0,75
Method: OECD Test Guideline 107

12.4. Mobility in soil

Informations related to the component 1,2-Benzisothiazol-3(2H)-one:

Distribution among
environmental compartments: Adsorption/Soil
Medium: water – soil
Koc: 235 – 566
Method: Other

12.5. Results of PBT and vPvB assessment

Informations related to the product:

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.

Informations related to the component 1,2-Benzisothiazol-3(2H)-one:

Assessment: The substance is not identified as a PBT or as a vPvB substance.

Informations related to the component mixture of: 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one(3:1):

Assessment: This substance is not considered to be persistent, bioaccumulating and toxic (PBT).

12.6. Other adverse effects

Informations related to the product:

Environmental fate and pathways: no data available
Additional ecological information: no data available

Informations related to the component 1,2-Benzisothiazol-3(2H)-one:

Environmental fate and pathways: not available
Additional ecological information: Do not allow to enter ground water, waterways or waste water.

Informations related to the component mixture of: 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one(3:1):

Additional ecological information: The product should not be allowed to enter drains, watercourses or the soil.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Product:

Dispose of in accordance with the European Directives on waste and hazardous waste.

Uncleaned packaging:

This material and its container must be disposed of in a safe way.

SECTION 14: TRANSPORT INFORMATION

14.1. to 14.5.

ADR: not restricted
ADN: not restricted
RID: not restricted
IATA: not restricted
IMDG: not restricted

Safety Data Sheet

in acc. with Regulation (EU) No. 2015/830

Revision Date: 04/02/2019

Tradename: CULR™ Art Pigment for Epoxy – Cosmic Purple

page 19/21

14.6. Special precautions for users

See sections 6 to 8 of this Safety Data Sheet.

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

No transport as bulk according IBC-Code.

SECTION 15: REGULATORY INFORMATION

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

| | |
|---|----------------|
| REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59): | Not applicable |
| REACH - List of substances subject to authorisation (Annex XIV): | Not applicable |
| Regulation (EC) No 1005/2009 on substances that deplete the ozone layer: | Not applicable |
| Regulation (EC) No 850/2004 on persistent organic pollutants: | Not applicable |

Other regulations:

Apart from the data/regulations specified in this chapter, no further information is available concerning safety, health and environmental protection.

15.2. Chemical safety assessment

No Chemical Safety Assessment (CSA) is yet available for the substance, or for the component substances, contained in this product.

SECTION 16: OTHER INFORMATION

Observe the legal requirements nationally and locally.

List of the text of the hazard statements mentioned section 3 (H-phrases):

| | |
|------|---|
| H301 | Toxic if swallowed. |
| H302 | Harmful if swallowed. |
| H310 | Fatal in contact with skin. |
| H314 | Causes severe skin burns and eye damage. |
| H315 | Causes skin irritation. |
| H317 | May cause an allergic skin reaction. |
| H318 | Causes serious eye damage. |
| H330 | Fatal if inhaled. |
| 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. |
| H412 | Harmful to aquatic life with long lasting effects. |

Full text of other abbreviations

| | |
|------------------|--|
| Acute Tox.: | Acute toxicity |
| Aquatic Acute: | Short-term (acute) aquatic hazard |
| Aquatic Chronic: | Long-term (chronic) aquatic hazard |
| Eye Dam.: | Serious eye damage |
| Skin Corr.: | Skin corrosion |
| Skin Irrit.: | Skin irritation |
| Skin Sens.: | Skin sensitisation |
| STOT RE: | Specific target organ toxicity - repeated exposure |

Change compared to the previous version:

Change in the composition

Safety Data Sheet

in acc. with Regulation (EU) No. 2015/830

Revision Date: 04/02/2019

Tradename: CULR™ Art Pigment for Epoxy – Cosmic Purple

page 20/21

Legend

| | |
|-----------|--|
| ADN | European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways |
| ADR | European Agreement concerning the International Carriage of Dangerous Goods by Road |
| AICS | Australian Inventory of Chemical Substances |
| ASTM | American Society for the Testing of Materials |
| bw | Body weight |
| CLP | Classification Labelling Packaging Regulation Regulation (EC) No 1272/2008 |
| CMR | Carcinogen, Mutagen or Reproductive Toxicant |
| DIN | Standard of the German Institute for Standardisation |
| DMEL | Derived Minimal Effect Level (genotoxic substances) |
| DNEL | Derived No Effect Level |
| DSL | Domestic Substances List (Canada) |
| ECHA | European Chemicals Agency |
| EC-Number | European Community number |
| ECx | Concentration associated with x% response |
| ELx | Loading rate associated with x% response |
| EmS | Emergency Schedule |
| ENCS | Existing and New Chemical Substances (Japan) |
| ErCx | Concentration associated with x% growth rate response |
| GHS | Globally Harmonized System |
| GLP | Good Laboratory Practice |
| IARC | International Agency for Research on Cancer |
| IATA | International Air Transport Association |
| IBC | International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk |
| IC50 | Half maximal inhibitory concentration |
| ICAO | International Civil Aviation Organization |
| IECSC | Inventory of Existing Chemical Substances in China |
| IMDG | International Maritime Dangerous Goods |
| IMO | International Maritime Organization |
| ISHL | Industrial Safety and Health Law (Japan) |
| ISO | International Organisation for Standardization |
| KECI | Korea Existing Chemicals Inventory |
| LC50 | Lethal Concentration to 50 % of a test population |
| LD50 | Lethal Dose to 50% of a test population (Median Lethal Dose) |
| MARPOL | International Convention for the Prevention of Pollution from Ships |
| n.o.s. | Not Otherwise Specified |
| NO(A)EC | No Observed (Adverse) Effect Concentration |
| NO(A)EL | No Observed (Adverse) Effect Level |
| NOELR | No Observable Effect Loading Rate |
| NZIoC | New Zealand Inventory of Chemicals |
| OECD | Organization for Economic Co-operation and Development |
| OPPTS | Office of Chemical Safety and Pollution Prevention |
| PBT | Persistent, Bioaccumulative and Toxic substance |
| PICCS | Philippines Inventory of Chemicals and Chemical Substances |
| (Q)SAR | (Quantitative) Structure Activity Relationship |
| REACH | Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals |
| RID | Regulations concerning the International Carriage of Dangerous Goods by Rail |
| SADT | Self-Accelerating Decomposition Temperature |
| SDS | Safety Data Sheet |
| TCSI | Taiwan Chemical Substance Inventory |
| TRGS | Technical Rule for Hazardous Substances |

Safety Data Sheet

in acc. with Regulation (EU) No. 2015/830

Revision Date: 04/02/2019

Tradename: CULR™ Art Pigment for Epoxy – Cosmic Purple

page 21/21

| | |
|------|--|
| TSCA | Toxic Substances Control Act (United States) |
| UN | United Nations |
| vPvB | Very Persistent and Very Bioaccumulative |

Decimal notation: "thousands" places are identified with a dot (for example, "2.000 mg/kg" means "two thousand mg/kg"). Decimal places are identified with a comma (for example, "1,35 g/cm³" means "one point three five g/cm³").

This information corresponds to the present state of our knowledge and is intended as a general description of our products and their possible applications. Easy Composites Ltd makes no warranties, express or implied, as to the information accuracy, adequacy, sufficiency or freedom from defect and assumes no liability in connection with any use of this information. Any user of this product is responsible for determining the suitability of CULR products for its particular application. Nothing included in this information waives any of Easy Composite's General Terms and Conditions of Sale, which control unless it agrees otherwise in writing.

Any existing intellectual/industrial property rights must be observed. Due to possible changes in our products and applicable national and international regulations and laws, the status of our products could change.

Material Safety Data Sheets providing safety precautions, that should be observed when handling or storing CULR products, are available upon request and are provided in compliance with applicable law. You should obtain and review the applicable Material Safety Data Sheet information before handling any of these products.

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