

# SAFETY DATA SHEET

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

Revision Date: 04/02/2019

**Tradename: CULR™ Art Pigment for Epoxy – Milk Choc Brown** page 1/21

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

### 1.1. Product identifier

Tradename: CULR™ Art Pigment for Epoxy – Milk Choc Brown

Chemical

characterisation: C.I. Pigment Red 101, Yellow 42, Black 26 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 454499

Information to substance / mixture:

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

### 1.4. Emergency telephone number

Emergency CONTACT (Office Hours) Phone: +44 (0)1782 454499

## 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
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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 – Milk Choc Brown** page 2/21

## SECTION 3: COMPOSITION / INFORMATION TO INGREDIENTS

### 3.1. Mixtures

#### Hazardous ingredients:

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

Concentration:  $\geq 5,4 - \leq 12,1$  %

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

#### **1,2-Benzisothiazolin-3-on**

Concentration:  $\geq 0,0025 - \leq 0,025$  %

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:  $\geq 0,0002 - \leq 0,0015$  %

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.

## 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).

## Safety Data Sheet

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

Revision Date: 04/02/2019

**Tradename: CULR™ Art Pigment for Epoxy – Milk Choc Brown** page 3/21

---

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.

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## SECTION 5: FIREFIGHTING MEASURES

**5.1. Extinguishing media**

Suitable extinguishing media:

Water spray jet

Dry powder

Carbon dioxide (CO<sub>2</sub>)

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<sub>x</sub>)

Nitrogen oxides (NO<sub>x</sub>)

**5.3. Advice for firefighters**

Special protective equipment for firefighting:

Use self-contained breathing apparatus.

Further information:

Wear suitable protective equipment.

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## 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.

**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.

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# Safety Data Sheet

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

Revision Date: 04/02/2019

**Tradename: CULR™ Art Pigment for Epoxy – Milk Choc Brown** page 4/21

## 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:

Iron(III)-Oxide

EC-Number: 215-168-2

CAS-Number: 1309-37-1

Route of exposure	End use	Potential health effects	Value	Remarks
Inhalation	Workers	Long-term local effects	10 mg/m <sup>3</sup>	DNEL, inhalable dust

manganese ferrite black spinel

EC-Number: 269-056-3

CAS-Number: 68186-94-7

Route of exposure	End use	Potential health effects	Value	Remarks
Inhalation	Workers	Long-term local effects	10 mg/m <sup>3</sup>	DNEL

C.I. Pigment Yellow 42

EC-Number: 257-098-5

CAS-Number: 51274-00-1

Route of exposure	End use	Potential health effects	Value	Remarks
Inhalation	Workers	Long-term local effects	10 mg/m <sup>3</sup>	DNEL

# Safety Data Sheet

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

Revision Date: 04/02/2019

**Tradename: CULR™ Art Pigment for Epoxy – Milk Choc Brown**

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 <sup>3</sup>	DNEL
Dermal	Workers	Long-term systemic effects	0,966 mg/kg bw/day	DNEL
Inhalation	Consumers	Long-term systemic effects	1,2 mg/m <sup>3</sup>	DNEL
Dermal	Consumers	Long-term systemic effects	0,345 mg/kg bw/day	DNEL

Amorphous silicon dioxide

EC-Number: 231-545-4

CAS-Number: 7631-86-9

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

Propylene Glycol

EC-Number: 200-338-0

CAS-Number: 57-55-6

Route of exposure	End use	Potential health effects	Value	Remarks
Inhalation	Workers	Long-term systemic effects	168 mg/m <sup>3</sup>	DNEL
Inhalation	Workers	Long-term local effects	10 mg/m <sup>3</sup>	DNEL
Inhalation	Consumers	Long-term systemic effects	50 mg/m <sup>3</sup>	DNEL
Inhalation	Consumers	Long-term local effects	10 mg/m <sup>3</sup>	DNEL
Skin contact	Consumers	Long-term systemic effects	213 mg/m <sup>3</sup>	
Ingestion	Consumers	Long-term systemic effects	85 mg/m <sup>3</sup>	

PNEC-values:

Propylene Glycol

EC-Number: 200-338-0

CAS-Number: 57-55-6

Environmental compartment	Value
Fresh water	260 mg/l
Marine water	26 mg/l
Water (intermittent release)	183 mg/l
Sewage treatment plant	20000 mg/l
Fresh water sediment	572 mg/kg dry weight (d.w.)
Marine sediment	57,2 mg/kg dry weight (d.w.)
Soil	50 mg/kg dry weight (d.w.)

# Safety Data Sheet

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

Revision Date: 04/02/2019

**Tradename: CULR™ Art Pigment for Epoxy – Milk Choc Brown**

page 6/21

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.

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:	brown
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

## Safety Data Sheet

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

Revision Date: 04/02/2019

**Tradename:** CULR™ Art Pigment for Epoxy – Milk Choc Brown page 7/21

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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:	1,69 g/cm <sup>3</sup> (20 °C)
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## 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.

### 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.

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## 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:	Acute toxicity estimate: > 2.000 mg/kg Method: Calculation method

##### 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.

## Safety Data Sheet

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

Revision Date: 04/02/2019

**Tradename: CULR™ Art Pigment for Epoxy – Milk Choc Brown** page 8/21

### 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.

### **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

# Safety Data Sheet

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

Revision Date: 04/02/2019

**Tradename: CULR™ Art Pigment for Epoxy – Milk Choc Brown**

page 9/21

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 sensitiser, 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  
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

## Safety Data Sheet

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

Revision Date: 04/02/2019

**Tradename: CULR™ Art Pigment for Epoxy – Milk Choc Brown** page 10/21

---

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.

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

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  
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

## Safety Data Sheet

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

Revision Date: 04/02/2019

Tradename: **CULR™ Art Pigment for Epoxy – Milk Choc Brown** page 11/21

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	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 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

# Safety Data Sheet

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

Revision Date: 04/02/2019

**Tradename:** CULR™ Art Pigment for Epoxy – Milk Choc Brown page 12/21

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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.

## 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

# Safety Data Sheet

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

Revision Date: 04/02/2019

Tradename: **CULR™ Art Pigment for Epoxy – Milk Choc Brown** page 13/21

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## 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

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## 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  
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

# Safety Data Sheet

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

Revision Date: 04/02/2019

Tradename: **CULR™ Art Pigment for Epoxy – Milk Choc Brown** page 14/21

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	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 sewage): 23 mg/l 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

# Safety Data Sheet

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

Revision Date: 04/02/2019

**Tradename: CULR™ Art Pigment for Epoxy – Milk Choc Brown** page 15/21

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	<p>Species: Oncorhynchus mykiss (rainbow trout) Analytical monitoring: yes Method: OECD Test Guideline 215 GLP: yes</p>
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity):	<p>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</p> <p>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</p>
Toxicity to soil dwelling organisms:	<p>Test Type: artificial soil LC50: &gt; 410,6 mg/kg Exposure time: 14 d End point: mortality Species: Eisenia fetida (earthworms) Method: OECD Test Guideline 207 GLP:yes Remarks: The details of the toxic effect relate to the nominal concentration.</p> <p>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 Remarks: The details of the toxic effect relate to the nominal concentration.</p>
Plant toxicity:	<p>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.</p> <p>NOEC: 90 mg/kg Exposure time: 20 d End point: Growth Species: Phaseolus vulgaris Analytical monitoring: yes Method: OECD Guide-line 208 GLP:yes</p>

# Safety Data Sheet

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

Revision Date: 04/02/2019

**Tradename: CULR™ Art Pigment for Epoxy – Milk Choc Brown** page 16/21

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.

Remarks: not available

Sediment toxicity:  
Ecotoxicology Assessment  
Acute aquatic toxicity:  
Chronic aquatic toxicity:

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

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

Toxicity to fish: EC50 (Oncorhynchus mykiss (rainbow trout)): 0,22 mg/l  
Exposure time: 96 h  
Method: OECD Test Guideline 203

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

# Safety Data Sheet

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

Revision Date: 04/02/2019

**Tradename: CULR™ Art Pigment for Epoxy – Milk Choc Brown** page 17/21

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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

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

## Safety Data Sheet

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

Revision Date: 04/02/2019

Tradename: **CULR™ Art Pigment for Epoxy – Milk Choc Brown** page 18/21

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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.

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).

## Safety Data Sheet

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

Revision Date: 04/02/2019

Tradename: **CULR™ Art Pigment for Epoxy – Milk Choc Brown** page 19/21

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### 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.

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## 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.

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## SECTION 14: TRANSPORT INFORMATION

### 14.1. to 14.5.

ADR: not restricted

ADN: not restricted

RID: not restricted

IATA: not restricted

IMDG: not restricted

### 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.

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## 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.

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**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

**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

## Safety Data Sheet

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

Revision Date: 04/02/2019

**Tradename: CULR™ Art Pigment for Epoxy – Milk Choc Brown** page 21/21

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

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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/cm<sup>3</sup>" means "one point three five g/cm<sup>3</sup>").

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