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

**1.1. Product identifier**

Tradename: CULR™ Art Pigment for Epoxy – Polished Silver

**1.2. Relevant identified uses of the substances or mixture and uses advised against**

Relevante 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**

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 (EC) No.1272/2008):

Not a hazardous substance or mixture.

**2.2. Label elements**

Labeling(Regulation (EC) No.1272/2008):

Not a dangerous substance or mixture according to the Globally Harmonised System (GHS).

**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.

## SECTION 3: COMPOSITION / INFORMATION TO INGREDIENTS

**3.1. Mixtures**

Hazardous components

| **Chemical Name** | **CAS-No.**<br>**EC-No.**<br>**INDEX No.**<br>**Registration No.** | **Classification Regulation (EC) No. 1272/2008)** | Concentration (% w/w) |
|---|---|---|---|
| Aluminium powder (stabilised) | 7429-90-5<br>231-072-3<br>013-002-00-1<br>01-2119529243-45 | Flam. Sol. 1; H228 | ≥ 25 - ≤ 50 |

For the full text of the H-Statements mentioned in this Section, see Section 16.

## SECTION 4: FIRST AID MEASURES

**4.1. Discription of first aid measures**

General information:
No hazards which requires special first aid measures.
Move the victim to fresh air.
Do not leave the victim unattended.

After inhalation:
If unconscious place in recovery position and seek medical advice.
If symptoms persist, call a physician.

After contact with skin:
Wash off immediately with soap and plenty of water.

After contact with eyes:
Remove contact lenses.
If eye irritation persists, consult a specialist.
Immediately flush eye(s) with plenty of water.

After swallowing:
Keep respiratory tract clear.
Do not give milk or alcoholic beverages.
Never give anything by mouth to an unconscious person.
If symptoms persist, call a physician.

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

Symptoms:
No information available.

Hazards:
No information available.

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

Treatment:
No information available.

## SECTION 5: FIREFIGHTING MEASURES

**5.1. Extinguishing media:**

Suitable extinction agents:
Dry sand
ABC powder
Foam

Extinction agents, not suitable out of safety reasons:
Water

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

This information is not available.

**5.3. Advice for firefighters**

Special protective equipment for firefighting:
Wear self contained breathing apparatus for the fire fighting if necessary.

Further information:
Standard procedure for chemical fires.
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

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

Evacuate personnel to safe areas.

**6.2. Environment precautions**

This information is not available.

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

Wipe up with absorbent material (e.g. cloth, fleece).
Do not flush with water.
Keep in suitable, closed containers for disposal.
Use mechanical handling equipment.
Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).

### 6.4. Cross Reference to other sections

Additional information:
See section 8 for information on personal protection equipment.

## SECTION 7: HANDLING AND STORAGE

### 7.1. Precautions for safe handling

Advice on safe handling:
For personal protection see section 8.
Smoking, eating and drinking should be prohibited in the application area.

Advice on protection against fire and explosion:
Normal measures for preventive fire protection.

Hygiene measures:
General industrial hygiene practice.

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

Requirements for storage areas and containers:
Electrical installations / working materials must comply with the technological safety standards.
Earthing of containers and apparatuses is essential.
Reaction with water liberates extremely flammable gas (hydrogen).
Take measures to prevent the build up of electrostatic charge.
Use explosion-proof equipment. Store in original container.
Keep containers tightly closed in a cool, well-ventilated place.
Keep away from sources of ignition - No smoking.
Keep container closed when not in use.

Further information on storage conditions:
Protect from humidity and water.

Storage stability:
Shelf-life: at least 18 month.

Advice on common storage:
Do not store near acids.
Do not store together with oxidizing and self-igniting products.
Keep away from oxidising agents and strongly acid or alkaline materials.
Never allow product to get in contact with water during storage.
Keep away from oxidising agents, strongly alkaline and strongly acid materials in order to avoid exothermic reactions.

Other data:
No decomposition if stored and applied as directed.

### 7.3. Specific end use(s)

This information is not available.

## SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

### 8.1. Control parameters

Occupational Exposure Limits

| Compo-nents | CAS-No. | Value type (Form of exposure) | Control param-eters | Update | Basis |
|---|---|---|---|---|---|
| Aluminium powder (stabilized) | 7429-90-5 | TWA (Inhalable) | 10 mg/m³ | 2011-12-01 | GB EH40 |
| Further information | | The COSHH definition of a substance hazardous to health includes dust of any kind when present at a concentration in air equal to or greater than 10 mg/m³ 8-hour TWA of inhalable dust or 4 mg/m³ 8-hour TWA of respirable dust. This means that any dust will be subject to COSHH if people are exposed above these levels. Some dusts have been assigned specific WELs and exposure to these must comply with the appropriate limit.Where no specific short-term exposure limit is listed, a figure three times the long-term exposure should be used. | | | |
| aluminium | 7429-90-5 | TWA (Respirable) | 4 mg/m³ | 2011-12-01 | GB EH40 |
| Further information | | The COSHH definition of a substance hazardous to health includes dust of any kind when present at a concentration in air equal to or greater than 10 mg/m³ 8-hour TWA of inhalable dust or 4 mg/m³ 8-hour TWA of respirable dust. This means that any dust will be subject to COSHH if people are exposed above these levels. Some dusts have been assigned specific WELs and exposure to these must comply with the appropriate limit. Where no specific short-term exposure limit is listed, a figure three times the long-term exposure should be used. | | | |
| aluminium | 7429-90-5 | TWA | 10 mg/m³ | 2005-04-06 | GB EH40 |
| Further information | | For the purposes of these limits, respirable dust and inhalable dust are those fractions of airborne dust which will be collected when sampling is undertaken in accordance with the methods described in MDHS14/3 General methods for sampling and gravimetric analysis of respirable and inhalable dust. The COSHH definition of a substance hazardous to health includes dust of any kind when present at a concentration in air equal to or greater than 10 mg/m³ 8-hour TWA of inhalable dust or 4 mg/m³ 8-hour TWA of respirable dust. This means that any dust will be subject to COSHH if people are exposed above these levels. Some dusts have been assigned specific WELs and exposure to these must comply with the appropriate limit. Most industrial dusts contain particles of a wide range of sizes. The behaviour, deposition and fate of any particular particle after entry into the human respiratory system and the body response that it elicits, depend on the nature and size of the particle. HSE distinguishes two size fractions for limit-setting purposes termed 'inhalable' and 'respirable'. Inhalable dust approximates to the fraction of airborne material that enters the nose and mouth during breathing and is therefore available for deposition in the respiratory tract. Respirable dust approximates to the fraction that penetrates to the gas exchange region of the lung. Fuller definitions and explanatory material are given in MDHS14/3. Where dusts contain components that have their own assigned WEL, all the relevant limits should be complied with. Where no specific short-term | | | |

| | | | | | |
|---|---|---|---|---|---|
| | | exposure limit is listed, a figure three times the long-term exposure should be used | | | |
| | | TWA (Respirable) | 4 mg/m³ | 2005-04-06 | GB EH40 |
| Further information | | For the purposes of these limits, respirable dust and inhalable dust are those fractions of airborne dust which will be collected when sampling is undertaken in accordance with the methods described in MDHS14/3 General methods for sampling and gravimetric analysis of respirable and inhalable dust, The COSHH definition of a substance hazardous to health includes dust of any kind when present at a concentration in air equal to or greater than 10 mg/m³ 8-hour TWA of inhalable dust or 4 mg/m³ 8-hour TWA of respirable dust. This means that any dust will be subject to COSHH if people are exposed above these levels. Some dusts have been assigned specific WELs and exposure to these must comply with the appropriate limit., Most industrial dusts contain particles of a wide range of sizes. The behaviour, deposition and fate of any particular particle after entry into the human respiratory system and the body response that it elicits, depend on the nature and size of the particle. HSE distinguishes two size fractions for limit-setting purposes termed 'inhalable' and 'respirable'., Inhalable dust approximates to the fraction of airborne material that enters the nose and mouth during breathing and is therefore available for deposition in the respiratory tract. Respirable dust approximates to the fraction that penetrates to the gas exchange region of the lung. Fuller definitions and explanatory material are given in MDHS14/3., Where dusts contain components that have their own assigned WEL, all the relevant limits should be complied with., Where no specific short-term exposure limit is listed, a figure three times the long-term exposure should be used | | | |
| aluminium | 7429-90-5 | TWA (Inhalable) | 10 mg/m³ | 2011-12-01 | GB EH40 |
| Further information | | For the purposes of these limits, respirable dust and inhalable dust are those fractions of airborne dust which will be collected when sampling is undertaken in accordance with the methods described in MDHS14/3 General methods for sampling and gravimetric analysis of respirable and inhalable dust. The COSHH definition of a substance hazardous to health includes dust of any kind when present at a concentration in air equal to or greater than 10 mg/m³ 8-hour TWA of inhalable dust or 4 mg/m³ 8-hour TWA of respirable dust. This means that any dust will be subject to COSHH if people are exposed above these levels. Some dusts have been assigned specific WELs and exposure to these must comply with the appropriate limit. Most industrial dusts contain particles of a wide range of sizes. The behaviour, deposition and fate of any particular particle after entry into the human respiratory system and the body response that it elicits, depend on the nature and size of the particle. HSE distinguishes two size fractions for limit-setting purposes termed 'inhalable' and 'respirable'. Inhalable dust approximates to the fraction of airborne material that enters the nose and mouth during breathing and is therefore available for deposition in the respiratory tract. Respirable dust approximates to the fraction that penetrates to the gas exchange region of the lung. Fuller definitions and explanatory material are given in MDHS14/3. Where dusts contain | | | |

| | | | | |
|---|---|---|---|---|
| | components that have their own assigned WEL, all the relevant limits should be complied with. Where no specific short-term exposure limit is listed, a figure three times the long-term exposure should be used | | | |
| | TWA (Respirable dust) | 4 mg/m³ | 2011-12-01 | GB EH40 |
| Further information | For the purposes of these limits, respirable dust and inhalable dust are those fractions of airborne dust which will be collected when sampling is undertaken in accordance with the methods described in MDHS14/3 General methods for sampling and gravimetric analysis of respirable and inhalable dust, The COSHH definition of a substance hazardous to health includes dust of any kind when present at a concentration in air equal to or greater than 10 mg/m³ 8-hour TWA of inhalable dust or 4 mg/m³ 8-hour TWA of respirable dust. This means that any dust will be subject to COSHH if people are exposed above these levels. Some dusts have been assigned specific WELs and exposure to these must comply with the appropriate limit., Most industrial dusts contain particles of a wide range of sizes. The behaviour, deposition and fate of any particular particle after entry into the human respiratory system and the body response that it elicits, depend on the nature and size of the particle. HSE distinguishes two size fractions for limit-setting purposes termed 'inhalable' and 'respirable'., Inhalable dust approximates to the fraction of airborne material that enters the nose and mouth during breathing and is therefore available for deposition in the respiratory tract. Respirable dust approximates to the fraction that penetrates to the gas exchange region of the lung. Fuller definitions and explanatory material are given in MDHS14/3., Where dusts contain components that have their own assigned WEL, all the relevant limits should be complied with., Where no specific short-term exposure limit is listed, a figure three times the long-term exposure should be used | | | |

Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

| Substance name | End Use | Exposure routes | Potential health effects | Value |
|---|---|---|---|---|
| aluminium powder (stabilised) | Workers | Inhalation | long term – local effects | 3.72 mg/m³ |
| | Consumers | Oral | long term – systemic effects | 3.95 mg/kg |

Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006:

| Substance name | Environmental Compartment | Value |
|---|---|---|
| aluminium powder (stabilised) | Fresh water | 0.0749 mg/l |
| | clarification plant | 20 mg/l |

**8.2. Personal protective equipment**

Eye protection:
Safety glasses

Hand protection:
Solvent resistant gloves
Preventive skin protection by use of skin-protection agents is recommended.

Prior to contact with the watersoluble substance/product/preparation apply waterinsoluble skin-protecting agent (fat-containing film former or W/O emulsions)

Material of gloves:
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

General protective and hygienic measures:
The usual precautionary measures are to be adhered to when handling chemicals.

Respiratory protection:
No personal respiratory protective equipment normally required.
Use suitable breathing protection if workplace concentration requires.

Body and skin protection:
Protective suit

**8.3. Environment exposure controls**

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

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

**9.1. Appearance**

| | |
|---|---|
| Physical state: | liquid |
| Colour: | silver-grey |
| Odour: | characteristic |
| pH: | 7 |
| Freezing point: | no data available |
| Boiling point/boiling range: | no data available |
| Flash point: | > 100 °C |
| Bulk density: | no data available |
| Flammibility(solid, gas) | no data available |
| Upper explosion limit: | no data available |
| Lower explosion limit: | no data available |
| Vapour pressure at 20 °C: | no data available |
| Density at 20 °C: | no data available |
| Solubility in water: | no data available |
| Solubility in other solvents: | no data available |
| Partition coefficient n-octanol/water: | no data available |
| Auto ignition temperature: | no data available |
| Thermal decomposition: | no data available |
| Viscosity, dynamic: | no data available |
| Viscosity, kinematic: | no data available |
| Flow time: | no data available |

**9.2. Other information**

No data available

## SECTION 10: STABILITY AND REACTIVITY

**10.1. Reactivity**

No decomposition if stored and applied as directed.

**10.2. Chemical Stability**

No decomposition if stored and applied as directed.

**10.3. Possibility of hazardous reactions**

Hazardous reactions:
Stable under recommended storage conditions.

**10.4. Conditions to avoid**

No data available.
Do not allow evapouration to dryness.

**10.5. Incompatible Materials**

Materials to avoid:
No data available.

**10.6. Hazardous decomposition products**

Other information:
No data available.

## SECTION 11: TOXICOLOGIC INFORMATION

**11.1. Acute Toxicity**

Informations related to the product:
Not classified based on available information.

Informations related to the component aluminium powder stabilized:

| | |
|---|---|
| Acute inhalation toxicit: | LC50 (Rat): > 5 mg/l<br>Exposure time: 4 h<br>Test atmosphere: dust/mist |

**Skin corrosion/irritation**

Informations related to the product:

| | |
|---|---|
| Result: | No skin irritation |
| Remarks: | Based on available data, the classification criteria are not met. |

**Serious eye damage/ eye irritation**

Informations related to the product:

| | |
|---|---|
| Result: | No skin irritation |
| Remarks: | Based on available data, the classification criteria are not met. |

**Respiratory or skin sensitization**

Informations related to the product:
Not classified based on available information.

**Germ cell mutagenicity**

Informations related to the product:
Not classified based on available information.

**Carcinogenicity**

Informations related to the product:
Not classified based on available information.

**Reproductive toxicity**

Informations related to the product:
Not classified based on available information.

**STOT – single exposure**

Informations related to the product:
Not classified based on available information.

**STOT – repeated exposure**

Informations related to the product:
Not classified based on available information.

**Aspiration toxicity**

Informations related to the product:
Not classified based on available information.

**Further Information**

Informations related to the product:
No data available

## SECTION 12: ECOLOGICAL INFORMATION

**12.1. Toxicity:**

Informations related to the component copper:

Ecotoxicology Assessment:

Acute aquatic toxicity:
This product has no known ecotoxicological effects

Chronic aquatic toxicity:
This product has no known ecotoxicological effects.

**12.2. Persistence and degradability**

No data available.

**12.3. Bioaccumulative potential**

No data available.

**12.4. Mobility in soil**

No data available.

**12.5. Results of PBT and vPvB assessment**

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

**12.6. Other adverse effects**

Informations related to the product:

Additional ecotoxicological remarks: No data available.

## SECTION 13: DISPOSAL CONSIDERATIONS

European Waste Catalogue: 08 01 11 - waste paint and varnish containing organic solvents or other dangerous substances.

**13.1. Waste treatment methods**

Product:

In accordance with local and national regulations.

Contaminated packaging:

Empty containers should be taken to an approved waste handling site for recycling or disposal.
In accordance with local and national regulations.

## SECTION 14: TRANSPORT INFORMATION

**14.1. to 14.5.**

| | |
|---|---|
| ADR: | Not dangerous goods |
| IATA: | Not permitted for transport |
| IMDG: | Not dangerous goods |

**14.6. Transport / Additional Information**

No dangerous goods according to transport regulations.
Due to the risk of hydrogen development we recommend to refrain from airfreighting this/these product(s).
Not classified as dangerous in the meaning of transport regulations.

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

Not applicable for product as supplied.

## SECTION 15: LEGISLATIVE PROVISIONS

**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

**15.2. Chemical safety assessment**
This information is not available.

## SECTION 16: OTHER INFORMATION

Observe national and local legal requirements

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

| | |
|---|---|
| H228 | Flammable solid |

**Full text of other abbreviations**

| | |
|---|---|
| Flam. Sol.: | Flammable solids |
| GB EH40: | UK. EH40 WEL - Workplace Exposure Limits |
| GB EH40 / TWA: | Long-term exposure limit (8-hour TWA reference period) |

**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 |
| 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 |

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$^3$" means "one point three five g/cm$^3$").

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For additional information, please contact Easy Composites Ltd.