



# SAFETY DATA SHEET

## SPECIALTY ELECTRONIC MATERIALS UK LIMITED

Safety Data Sheet according to Regulation (EC) No 1907/2006 - Annex II

**Product name:** MOLYKOTE® CU-7439 Plus Paste V1

**Revision Date:** 12.01.2024

**Version:** 8.0

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SPECIALTY ELECTRONIC MATERIALS UK LIMITED encourages and expects you to read and understand the entire (M)SDS, as there is important information throughout the document. We expect you to follow the precautions identified in this document unless your use conditions would necessitate other appropriate methods or actions.

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

### 1.1 Product identifier

**Product name:** MOLYKOTE® CU-7439 Plus Paste V1

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

**Identified uses:** Lubricants and lubricant additives

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

#### COMPANY IDENTIFICATION

SPECIALTY ELECTRONIC MATERIALS UK  
LIMITED  
KINGS COURT, LONDON ROAD  
STEVENAGE  
England  
SG1 2NG  
UNITED KINGDOM

**Manufacturer** DuPont Specialty Products GmbH & Co. KG

### Customer Information Number:

00800-3876-6838

SDSQuestion-EU@dupont.com

### 1.4 EMERGENCY TELEPHONE NUMBER

**24-Hour Emergency Contact:** +(44)-870-8200418

**Local Emergency Contact:** +(44)-870-8200418

## SECTION 2: HAZARDS IDENTIFICATION

### 2.1 Classification of the substance or mixture

**Classification according to Regulation (EC) No 1272/2008:**

Skin irritation - Category 2 - H315

Eye irritation - Category 2 - H319

Short-term (acute) aquatic hazard - Category 1 - H400

Long-term (chronic) aquatic hazard - Category 1 - H410

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

## 2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008:

### Hazard pictograms



Signal word: **WARNING**

### Hazard statements

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H410 Very toxic to aquatic life with long lasting effects.

### Precautionary statements

P264 Wash skin thoroughly after handling.

P273 Avoid release to the environment.

P280 Wear protective gloves/ eye protection/ face protection.

P337 + P313 If eye irritation persists: Get medical advice/ attention.

P391 Collect spillage.

P501 Dispose of contents/ container to an approved waste disposal plant.

**Supplemental information** The following percentage of the mixture consists of ingredient(s) with unknown acute inhalation toxicity: 2 %

## 2.3 Other hazards

Endocrine disrupting properties (human health):

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

Endocrine disrupting properties (environment):

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

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.

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

**Chemical nature:** Inorganic and organic compounds in mineral oil

### 3.2 Mixtures

This product is a mixture.

Identification number	Component	Classification according to Regulation (EU) 1272/2008 (CLP)	specific concentration limit/ M-Factors/ Acute toxicity estimate	%
<b>CASRN</b> – <b>EC-No.</b> – <b>Index-No.</b> 029-019-01-X <b>REACH No.</b> 01-2119480154-42	copper flakes (coated with aliphatic acid)	Acute Tox. 4 - H302 Acute Tox. 3 - H331 Eye Irrit. 2 - H319 Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410	M-Factors: 10 [Acute] 10 [Chronic]  Oral ATE: 500 mg/kg  Inhalation ATE: 0.733 mg/l (dust/mist)	>= 10.0 - < 20.0 %
<b>CASRN</b> 68187-67-7 <b>EC-No.</b> 269-119-5 <b>Index-No.</b> – <b>REACH No.</b> –	C12-C14-Alkyl amines, isooctyl phosphates	Acute Tox. 4 - H302 Acute Tox. 4 - H312 Skin Corr. 1C - H314 Eye Irrit. 1 - H318 Aquatic Acute 1 - H400 Aquatic Chronic 2 - H411	M-Factors: 1 [Acute]  Oral ATE: 1,000 mg/kg  Dermal ATE: 2,000 mg/kg	>= 1.0 - < 2.5 %

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

## SECTION 4: FIRST AID MEASURES

### 4.1 Description of first aid measures

#### General advice:

First Aid responders should pay attention to self-protection and use the recommended protective clothing (chemical resistant gloves, splash protection). If potential for exposure exists refer to Section 8 for specific personal protective equipment.

**Inhalation:** Move person to fresh air; if effects occur, consult a physician.

**Skin contact:** Remove material from skin immediately by washing with soap and plenty of water. Remove contaminated clothing and shoes while washing. Seek medical attention if irritation persists. Wash clothing before reuse. Discard items which cannot be decontaminated, including leather articles such as shoes, belts and watchbands.

**Eye contact:** Immediately flush eyes with water; remove contact lenses, if present, after the first 5 minutes, then continue flushing eyes for at least 15 minutes. Obtain medical attention without delay, preferably from an ophthalmologist. Suitable emergency eye wash facility should be available in work area.

**Ingestion:** If swallowed, seek medical attention. Do not induce vomiting unless directed to do so by medical personnel.

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

Aside from the information found under Description of first aid measures (above) and Indication of immediate medical attention and special treatment needed (below), any additional important symptoms and effects are described in Section 11: Toxicology Information.

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

**Notes to physician:** No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

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## **SECTION 5: FIREFIGHTING MEASURES**

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### **5.1 Extinguishing media**

**Suitable extinguishing media:** Water spray Alcohol-resistant foam Carbon dioxide (CO<sub>2</sub>) Dry chemical

**Unsuitable extinguishing media:** None known.

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

**Hazardous combustion products:** Carbon oxides Nitrogen oxides (NO<sub>x</sub>)

**Unusual Fire and Explosion Hazards:** Exposure to combustion products may be a hazard to health.

### **5.3 Advice for firefighters**

**Fire Fighting Procedures:** Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. Contain fire water run-off if possible. Fire water run-off, if not contained, may cause environmental damage.

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Use water spray to cool unopened containers. Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Remove undamaged containers from fire area if it is safe to do so. Evacuate area.

**Special protective equipment for firefighters:** In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment.

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## **SECTION 6: ACCIDENTAL RELEASE MEASURES**

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**6.1 Personal precautions, protective equipment and emergency procedures:** Use personal protective equipment. Follow safe handling advice and personal protective equipment recommendations.

**6.2 Environmental precautions:** Do not release the product to the aquatic environment above defined regulatory levels. Prevent further leakage or spillage if safe to do so. Retain and dispose of contaminated wash water. Local authorities should be advised if significant spillages cannot be contained.

**6.3 Methods and materials for containment and cleaning up:** Wipe up or scrape up and contain for salvage or disposal. Local or national regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup of releases. You will need to determine which regulations are applicable. For large spills, provide dyking or other appropriate containment to keep material from spreading. If dyked material can be pumped, Sections 13 and 15 of this SDS provide information regarding certain local or national requirements.

**6.4 Reference to other sections:**

See sections: 7, 8, 11, 12 and 13.

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## SECTION 7: HANDLING AND STORAGE

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**7.1 Precautions for safe handling:** Do not get on skin or clothing. Do not swallow. Do not get in eyes. Take care to prevent spills, waste and minimize release to the environment. Handle in accordance with good industrial hygiene and safety practice.

Use only with adequate ventilation. See Engineering measures under EXPOSURE CONTROLS/PERSONAL PROTECTION section.

**7.2 Conditions for safe storage, including any incompatibilities:** Keep in properly labelled containers. Store in accordance with the particular national regulations.

Do not store with the following product types: Strong oxidizing agents.

Unsuitable materials for containers: None known.

**7.3 Specific end use(s):** Information on specific end use(s) of this product may be provided in a technical data sheet/annex to the SDS (if available).

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## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

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### 8.1 Control parameters

If exposure limits exist, they are listed below. If no exposure limits are displayed, then no values are applicable.

### 8.2 Exposure controls

**Engineering measures:** Use local exhaust ventilation, or other engineering controls to maintain airborne levels below exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, general ventilation should be sufficient for most operations. Local exhaust ventilation may be necessary for some operations.

### Individual protection measures

**Eye/face protection:** Use chemical goggles. Chemical goggles should be consistent with EN 166 or equivalent. If exposure causes eye discomfort, use a full-face respirator (meeting standard EN 136) with organic vapor cartridge (meeting standard EN 14387).

**Skin protection**

**Hand protection:** Use chemical resistant gloves classified under Standard EN374: Protective gloves against chemicals and micro-organisms. NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all relevant workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glove materials, as well as the instructions/specifications provided by the glove supplier.

**Other protection:** Wear clean, body-covering clothing.

**Respiratory protection:** Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines.

#### Environmental exposure controls

See SECTION 7: Handling and storage and SECTION 13: Disposal considerations for measures to prevent excessive environmental exposure during use and waste disposal.

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## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

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### 9.1 Information on basic physical and chemical properties

Physical state	solid
	<b>Form</b> paste
Colour	bronze
Odour	slight
Melting point/freezing point	No data available
Boiling point or initial boiling point and boiling range	No data available
Flammability	<b>Gases/Solids</b> Not classified as a flammability hazard
	<b>Liquids</b> No data available
Lower explosion limit and upper explosion limit / flammability limit	No data available
Flash point	> 200 °C Method: Tag closed cup
Auto-ignition temperature	No data available
Decomposition temperature	No data available

<b>pH</b>	Not applicable
<b>Viscosity</b>	<b>Viscosity, kinematic</b> No data available
<b>Solubility(ies)</b>	<b>Water solubility</b> No data available
<b>Partition coefficient: n-octanol/water</b>	No data available
<b>Vapour pressure</b>	Not applicable
<b>Density and / or relative density</b>	<b>Relative density</b> 0.99
<b>Relative vapour density</b>	No data available
<b>Particle characteristics</b>	<b>Particle size</b> No data available

## 9.2 Other information

<b>Explosives</b>	Not explosive
<b>Oxidizing properties</b>	The substance or mixture is not classified as oxidizing.
<b>Substances and mixtures, which in contact with water, emit flammable gases</b>	The substance or mixture does not emit flammable gases in contact with water.
<b>Organic peroxides</b>	The substance or mixture is not classified as organic peroxide.
<b>Molecular weight</b>	No data available

NOTE: The physical data presented above are typical values and should not be construed as a specification.

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## SECTION 10: STABILITY AND REACTIVITY

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**10.1 Reactivity:** Not classified as a reactivity hazard.

**10.2 Chemical stability:** Stable under normal conditions.

**10.3 Possibility of hazardous reactions:** Can react with strong oxidizing agents.

**10.4 Conditions to avoid:** None known.

**10.5 Incompatible materials:** Oxidizing agents

**10.6 Hazardous decomposition products:** 1-Butene.

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## SECTION 11: TOXICOLOGICAL INFORMATION

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*Toxicological information appears in this section when such data is available.*

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

#### Acute toxicity

##### **Acute toxicity (Acute oral toxicity)**

Not classified

Not classified due to lack of data. / Not classified due to data which are conclusive although insufficient for classification.

Acute toxicity estimate, > 2,000 mg/kg Calculation method

##### **Acute toxicity (Acute dermal toxicity)**

Not classified

Not classified due to lack of data. / Not classified due to data which are conclusive although insufficient for classification.

Acute toxicity estimate, > 2,000 mg/kg Calculation method

##### **Acute toxicity (Acute inhalation toxicity)**

Not classified

Not classified due to lack of data. / Not classified due to data which are conclusive although insufficient for classification.

Acute toxicity estimate, 4 Hour, dust/mist, > 5 mg/l Calculation method

#### **Skin corrosion/irritation**

Skin irritation, Category 2

H315: Causes skin irritation.

Classification procedure: Calculation method

Product test data not available. Refer to component data.

#### **Serious eye damage/eye irritation**

Eye irritation, Category 2

H319: Causes serious eye irritation.

Classification procedure: Calculation method

Product test data not available. Refer to component data.

#### **Respiratory or skin sensitisation**

Not classified

Not classified due to lack of data. / Not classified due to data which are conclusive although insufficient for

classification.

Product test data not available. Refer to component data.

**Germ cell mutagenicity**

Not classified

Not classified due to lack of data. / Not classified due to data which are conclusive although insufficient for classification.

Product test data not available. Refer to component data.

**Carcinogenicity**

Not classified

Not classified due to lack of data. / Not classified due to data which are conclusive although insufficient for classification.

Product test data not available. Refer to component data.

**Reproductive toxicity**

Not classified

Not classified due to lack of data. / Not classified due to data which are conclusive although insufficient for classification.

Toxicity to reproduction assessment :

Product test data not available. Refer to component data.

Assessment Teratogenicity:

Product test data not available. Refer to component data.

**STOT - single exposure**

Not classified

Not classified due to lack of data. / Not classified due to data which are conclusive although insufficient for classification.

Product test data not available. Refer to component data.

**STOT - repeated exposure**

Not classified

Not classified due to lack of data. / Not classified due to data which are conclusive although insufficient for classification.

Product test data not available. Refer to component data.

**Aspiration Hazard**

Not classified

Not classified due to lack of data. / Not classified due to data which are conclusive although insufficient for classification.

Product test data not available. Refer to component data.

**COMPONENTS INFLUENCING TOXICOLOGY:**

**copper flakes (coated with aliphatic acid)**

**Acute toxicity (Acute oral toxicity)**

Acute toxicity estimate, 500 mg/kg Acute toxicity estimate according to Regulation (EC) No. 1272/2008

LD50, Rat, 481 mg/kg OECD Test Guideline 423

**Acute toxicity (Acute inhalation toxicity)**

Acute toxicity estimate, dust/mist, 0.733 mg/l Acute toxicity estimate according to Regulation (EC) No. 1272/2008

LC50, Rat, 4 Hour, dust/mist, 0.733 mg/l

**Skin corrosion/irritation**

Brief contact is essentially nonirritating to skin.

**Serious eye damage/eye irritation**

May cause moderate eye irritation.

**Respiratory or skin sensitisation**

Did not cause allergic skin reactions when tested in guinea pigs.

**Germ cell mutagenicity**

Animal genetic toxicity studies were negative. This material was not mutagenic in an Ames bacterial assay.

**Carcinogenicity**

Animal testing did not show any carcinogenic effects.

**Reproductive toxicity**

Toxicity to reproduction assessment :

In animal studies, did not interfere with reproduction.

Assessment Teratogenicity:

Did not cause birth defects in laboratory animals.

**STOT - single exposure**

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

**STOT - repeated exposure**

Based on available data, repeated exposures are not anticipated to cause additional significant adverse effects.

Information given is based on data obtained from similar substances.

**Aspiration Hazard**

No aspiration toxicity classification

**C12-C14-Alkyl amines, isooctyl phosphates**

**Acute toxicity (Acute oral toxicity)**

LD50, Rat, 1,000 mg/kg

**Acute toxicity (Acute dermal toxicity)**

Information given is based on data obtained from similar substances. LD50, Rabbit, 2,000 mg/kg OECD Test Guideline 402

**Acute toxicity (Acute inhalation toxicity)**

The LC50 has not been determined.

**Skin corrosion/irritation**

Brief contact may cause skin burns. Symptoms may include pain, severe local redness and tissue damage.

**Serious eye damage/eye irritation**

May cause severe eye irritation.

**Respiratory or skin sensitisation**

Did not cause allergic skin reactions when tested in guinea pigs.

**STOT - single exposure**

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

**11.2. Information on other hazards****Endocrine disrupting properties**

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

**Further information**

No data available

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**SECTION 12: ECOLOGICAL INFORMATION**

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*Ecotoxicological information appears in this section when such data is available.*

**12.1 Toxicity****copper flakes (coated with aliphatic acid)****Acute toxicity to fish**

LC50, Oncorhynchus mykiss (rainbow trout), 96 Hour, 0.068 mg/l

**Acute toxicity to aquatic invertebrates**

EC50, Daphnia magna (Water flea), 48 Hour, 0.034 mg/l, OECD Test Guideline 202

**Acute toxicity to algae/aquatic plants**

Information given is based on data obtained from similar substances.

EC50, Pseudokirchneriella subcapitata (green algae), 72 Hour, 0.03 mg/l, OECD Test Guideline 201

NOEC, Algae, 10 d, 0.022 mg/l, OECD Test Guideline 201

**Chronic toxicity to fish**

NOEC, Oncorhynchus mykiss (rainbow trout), 61 d, 0.024 mg/l

**Chronic toxicity to aquatic invertebrates**

NOEC, Daphnia magna (Water flea), 21 d, 0.0368 mg/l

**C12-C14-Alkyl amines, isooctyl phosphates****Acute toxicity to aquatic invertebrates**

Information given is based on data obtained from similar substances.

EC50, Daphnia magna (Water flea), 48 Hour, 17 mg/l, OECD Test Guideline 202

**Acute toxicity to algae/aquatic plants**

Information given is based on data obtained from similar substances.

EC50, Pseudokirchneriella subcapitata (green algae), 72 Hour, 0.8 mg/l, OECD Test Guideline 201

Information given is based on data obtained from similar substances.

NOEC, Pseudokirchneriella subcapitata (green algae), 72 Hour, 0.32 mg/l, OECD Test Guideline 201

**12.2 Persistence and degradability****copper flakes (coated with aliphatic acid)**

**Biodegradability:** Biodegradation is not applicable.

**C12-C14-Alkyl amines, isooctyl phosphates**

**Biodegradability:** Not readily biodegradable.

**Biodegradation:** 35 %

**Exposure time:** 28 d

**12.3 Bioaccumulative potential****copper flakes (coated with aliphatic acid)**

**Bioaccumulation:** Not applicable

**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.

**copper flakes (coated with aliphatic acid)**

This substance has not been assessed for persistence, bioaccumulation and toxicity (PBT).

**C12-C14-Alkyl amines, isooctyl phosphates**

This substance has not been assessed for persistence, bioaccumulation and toxicity (PBT).

**12.6 Endocrine disrupting properties**

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

## 12.7 Other adverse effects

### copper flakes (coated with aliphatic acid)

No data available

### C12-C14-Alkyl amines, isooctyl phosphates

No relevant data found.

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## SECTION 13: DISPOSAL CONSIDERATIONS

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### 13.1 Waste treatment methods

Do not dump into any sewers, on the ground, or into any body of water. This product, when being disposed of in its unused and uncontaminated state should be treated as a hazardous waste according to EC Directive 2008/98/EC. Any disposal practices must be in compliance with all national and provincial laws and any municipal or local by-laws governing hazardous waste. For used, contaminated and residual materials additional evaluations may be required.

The definitive assignment of this material to the appropriate EWC group and thus its proper EWC code will depend on the use that is made of this material. Contact the authorized waste disposal services.

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## SECTION 14: TRANSPORT INFORMATION

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### Classification for ROAD and Rail transport (ADR/RID):

- |                                   |  |
|-----------------------------------|--|
| 14.1 UN number or ID number       | UN 3077  |
| 14.2 UN proper shipping name      | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.(Copper) |
| 14.3 Transport hazard class(es)   | 9  |
| 14.4 Packing group                | III  |
| 14.5 Environmental hazards        | Copper   |
| 14.6 Special precautions for user | Hazard Identification Number: 90                           |

### Classification for SEA transport (IMO-IMDG):

- |                                   |  |
|-----------------------------------|--|
| 14.1 UN number or ID number       | UN 3077  |
| 14.2 UN proper shipping name      | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.(Copper) |
| 14.3 Transport hazard class(es)   | 9  |
| 14.4 Packing group                | III  |
| 14.5 Environmental hazards        | Copper   |
| 14.6 Special precautions for user | EmS: F-A, S-F  |

**14.7 Maritime transport in bulk according to IMO instruments**

Consult IMO regulations before transporting ocean bulk

**Classification for AIR transport (IATA/ICAO):****14.1 UN number or ID number** UN 3077**14.2 UN proper shipping name** Environmentally hazardous substance, solid, n.o.s.(Copper)**14.3 Transport hazard class(es)** 9**14.4 Packing group** III**14.5 Environmental hazards** Not applicable**14.6 Special precautions for user** No data available.

This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. Transportation classifications may vary by container volume and may be influenced by regional or country variations in regulations. Additional transportation system information can be obtained through an authorized sales or customer service representative. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

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**SECTION 15: REGULATORY INFORMATION**

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**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture****REACH Regulation (EC) No 1907/2006**

This product contains only components that have been either registered, are exempt from registration, are regarded as registered or are not subject to registration according to Regulation (EC) No. 1907/2006 (REACH). The aforementioned indications of the REACH registration status are provided in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied, is given. It is the buyer's/user's responsibility to ensure that his/her understanding of the regulatory status of this product is correct. Polymers are exempted from registration under REACH. All relevant starting materials and additives have been either registered, or are exempt from registration according to Regulation (EC) No. 1907/2006 (REACH).

**Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.**

Listed in Regulation: ENVIRONMENTAL HAZARDS

Number in Regulation: E1

100 t

200 t

**15.2 Chemical safety assessment**

No Chemical Safety Assessment has been carried out for this substance/mixture.

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**SECTION 16: OTHER INFORMATION**

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**Full text of H-Statements referred to under sections 2 and 3.**

H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H331	Toxic 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.

**Classification and procedure used to derive the classification for mixtures according to Regulation (EC) No 1272/2008**

Skin Irrit. - 2 - H315 - Calculation method

Eye Irrit. - 2 - H319 - Calculation method

Aquatic Acute - 1 - H400 - Calculation method

Aquatic Chronic - 1 - H410 - Calculation method

**Revision**

Identification Number: 12018166 / A670 / Issue Date: 12.01.2024 / Version: 8.0

Most recent revision(s) are noted by the bold, double bars in left-hand margin throughout this document.

**Legend**

Acute Tox.	Acute toxicity
Aquatic Acute	Short-term (acute) aquatic hazard
Aquatic Chronic	Long-term (chronic) aquatic hazard
Eye Irrit.	Eye irritation
Skin Corr.	Skin corrosion

**Full text of other abbreviations**

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; 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; 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; SVHC - Substance of Very High Concern; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

### Information Source and References

This SDS is prepared by Product Regulatory Services and Hazard Communications Groups from information supplied by internal references within our company.

SPECIALTY ELECTRONIC MATERIALS UK LIMITED urges each customer or recipient of this (M)SDS to study it carefully and consult appropriate expertise, as necessary or appropriate, to become aware of and understand the data contained in this (M)SDS and any hazards associated with the product. The information herein is provided in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied, is given. Regulatory requirements are subject to change and may differ between various locations. It is the buyer's/user's responsibility to ensure that his activities comply with all federal, state, provincial or local laws. The information presented here pertains only to the product as shipped. Since conditions for use of the product are not under the control of the manufacturer, it is the buyer's/user's duty to determine the conditions necessary for the safe use of this product. Due to the proliferation of sources for information such as manufacturer-specific (M)SDSs, we are not and cannot be responsible for (M)SDSs obtained from any source other than ourselves. If you have obtained an (M)SDS from another source or if you are not sure that the (M)SDS you have is current, please contact us for the most current version.

GB