

# SAFETY DATA SHEET

# SPECIALTY ELECTRONIC MATERIALS UK LIMITED

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

Product name: MOLYKOTE® EM-30L Grease

Revision Date: 24.01.2024 Version: 5.0

Date of last issue: 08.06.2023

Print Date: 02.02.2024

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® EM-30L Grease

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:

Reproductive toxicity - Category 2 - H361f

Product name: MOLYKOTE® EM-30L Grease Revision Date: 24.01.2024

Version: 5.0

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**

H361f Suspected of damaging fertility.

# **Precautionary statements**

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

P308 + P313 IF exposed or concerned: Get medical advice/ attention.

P370 + P261 In case of fire: Avoid breathing fume.

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 dermal toxicity: 6%

**Contains** Melamine cyanurate

#### 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.

Revision Date: 24.01.2024 Version: 5.0

# **SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**

Chemical nature: Inorganic and organic compounds, in synthetic 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	%
CASRN 37640-57-6 EC-No. 253-575-7 Index-No. — REACH No.	Melamine cyanurate	STOT RE 2 - H373 Repr. 2 - H361f	Oral ATE: > 2,000 mg/kg Inhalation ATE: > 5.1 mg/l (dust/mist) Dermal ATE: > 5,000 mg/kg	>= 3.0 - < 10.0 %
01-2119510711-53				

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:** Wash off with plenty of water.

Eye contact: Flush eyes thoroughly with water for several minutes. Remove contact lenses after the initial 1-2 minutes and continue flushing for several additional minutes. If effects occur, consult a physician, preferably an ophthalmologist.

**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.

Revision Date: 24.01.2024 Version: 5.0

# **SECTION 5: FIREFIGHTING MEASURES**

# 5.1 Extinguishing media

Suitable extinguishing media: Water spray Alcohol-resistant foam Carbon dioxide (CO2) Dry chemical

Unsuitable extinguishing media: None known.

# 5.2 Special hazards arising from the substance or mixture

**Hazardous combustion products:** Carbon oxides Nitrogen oxides (NOx) Fluorine compounds Oxides of phosphorus

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

# 5.3 Advice for firefighters

**Fire Fighting Procedures:** Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

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. Wear neoprene gloves to prevent contact with hydrofluoric acid.

# SECTION 6: ACCIDENTAL RELEASE MEASURES

- **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:** Discharge into the environment must be avoided. 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.

Page 4 of 16

**SECTION 7: HANDLING AND STORAGE** 

**7.1 Precautions for safe handling:** Do not swallow. Avoid contact with eyes. Avoid prolonged or repeated contact with skin. 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.

## Advice on general occupational hygiene

Handle in accordance with good industrial hygiene and safety practice. Use good personal hygiene. Do not consume or store food in the work area. Wash hands before smoking or eating.

**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).

# SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

# 8.1 Control parameters

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

# **Derived No Effect Level**

Melamine cyanurate

#### Workers

Acute systemic effects		Acute local effects		Long-term systemic effects		Long-term local effects		
Dermal	Inhalation	Dermal	Inhalation	Dermal	Inhalation	Dermal	Inhalation	
n.a.	n.a.	n.a.	n.a.	n.a.	0.21 mg/m3	n.a.	n.a.	

#### Consumers

Acute systemic effects			Acute local effects		Long-term systemic effects			Long-term local effects	
Dermal	Inhalation	Oral	Dermal	Inhalation	Dermal	Inhalation	Oral	Dermal	Inhalation
n.a.	n.a.	n.a.	n.a.	n.a.	16.6 mg/kg bw/day8. 3 mg/kg bw/day	0.053 mg/m3	15 μg/kg bw/day	n.a.	n.a.

# 8.2 Exposure controls

Product name: MOLYKOTE® EM-30L Grease Revision Date: 24.01.2024

Version: 5.0

**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.

# **Individual protection measures**

**Eye/face protection:** Use safety glasses (with side shields). Safety glasses (with side shields) should be consistent with EN 166 or equivalent.

# 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:** Use protective clothing chemically resistant to this material. Selection of specific items such as face shield, boots, apron, or full body suit will depend on the task.

**Respiratory protection:** Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, wear respiratory protection when adverse effects, such as respiratory irritation or discomfort have been experienced, or where indicated by your risk assessment process.

# **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.

# SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

# 9.1 Information on basic physical and chemical properties

Physical state solid (20 °C, )

Form Grease

**Colour** white

**Odour** slight

Odour Threshold No data available

Melting point/freezing point Melting point/range: No data available

Boiling point or initial boiling point and boiling range

Boiling point/boiling range: Not applicable

Flammability Gases/Solids

Not classified as a flammability hazard

Liquids

No data available

Lower explosion limit and upper explosion limit / flammability limit

Lower explosion limit / Lower flammability limit

No data available

**Upper explosion limit / Upper flammability limit** 

No data available

Flash point > 200 °C

Method: (closed cup)

Auto-ignition temperature No data available

Decomposition temperature Thermal decomposition

No data available

**pH** Not applicable

Viscosity, kinematic

Not applicable

Viscosity, dynamic Not applicable

Solubility(ies) Water solubility

No data available

Partition coefficient: n-

octanol/water

No data available

Vapour pressure Not applicable

Density and / or relative

density

Relative density

0.9

Relative vapour density No data available

Particle characteristics Particle size

No data available

9.2 Other information

**Oxidizing properties** The substance or mixture is not classified as oxidizing.

**Self-heating substances** The substance or mixture is not classified as self heating.

Substances and mixtures, which in contact with water,

The substance or mixture does not emit flammable gases

in contact with water.

Product name: MOLYKOTE® EM-30L Grease Revision Date: 24.01.2024

Version: 5.0

#### emit flammable gases

**Evaporation rate** Not applicable

Molecular weight No data available

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

# **SECTION 10: STABILITY AND REACTIVITY**

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: Ammonia. Hydrogen Cyanide. Hexafluoroethane. Hydrogen Fluoride. 1,1,1,3,3,3-Hexafluoro-2-propanone. Carbonic difluoride. Carbon monoxide. Fluorinated hydrocarbons.

# **SECTION 11: TOXICOLOGICAL INFORMATION**

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.

Product test data not available. Refer to component data.

#### 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.

Product test data not available. Refer to component data.

#### Acute toxicity (Acute inhalation toxicity)

Not classified

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

Product name: MOLYKOTE® EM-30L Grease Revision Date: 24.01.2024

Version: 5.0

insufficient for classification.

Product test data not available. Refer to component data.

#### Skin corrosion/irritation

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.

## Serious eye damage/eye irritation

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.

# 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

Reproductive toxicity, Category 2

H361f: Suspected of damaging fertility.

Classification procedure: Calculation method

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:

# Melamine cyanurate

# Acute toxicity (Acute oral toxicity)

LD50, Rat, > 2,000 mg/kg OECD Test Guideline 423

# Acute toxicity (Acute dermal toxicity)

Information given is based on data obtained from similar substances. LD50, Rat, > 5,000 mg/kg

## Acute toxicity (Acute inhalation toxicity)

LC50, Rat, 4 Hour, dust/mist, > 5.1 mg/l OECD Test Guideline 403

#### Skin corrosion/irritation

Brief contact is essentially nonirritating to skin.

#### Serious eve damage/eve irritation

May cause slight temporary eye irritation.

#### Respiratory or skin sensitisation

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

# Germ cell mutagenicity

In vitro genetic toxicity studies were negative. Animal genetic toxicity studies were negative. Information given is based on data obtained from similar substances.

# Carcinogenicity

The observed tumors do not appear to be relevant for men. For similar material(s):

# Reproductive toxicity

Toxicity to reproduction assessment:

No data available

Assessment Teratogenicity:

Page 10 of 16

Revision Date: 24.01.2024 Version: 5.0

Did not cause birth defects or any other fetal effects in laboratory animals. Information given is based on data obtained from similar substances.

#### STOT - single exposure

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

#### STOT - repeated exposure

In animals, effects have been reported on the following organs: kidney effects

# **Aspiration Hazard**

No aspiration toxicity classification

#### 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

# SECTION 12: ECOLOGICAL INFORMATION

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

# 12.1 Toxicity

#### Melamine cyanurate

# Acute toxicity to fish

LC50, Danio rerio (zebra fish), 96 Hour, > 10,000 mg/l, OECD Test Guideline 203

# Acute toxicity to aquatic invertebrates

Information given is based on data obtained from similar substances. EC50, Daphnia magna, 48 Hour, 200 mg/l

# Acute toxicity to algae/aquatic plants

Information given is based on data obtained from similar substances. EC50, Raphidocelis subcapitata (freshwater green alga), 96 Hour, 325 mg/l Information given is based on data obtained from similar substances. NOEC, Raphidocelis subcapitata (freshwater green alga), 96 Hour, 98 mg/l

#### Toxicity to bacteria

EC50, 3 Hour, > 10,000 mg/l, OECD Test Guideline 209

#### Chronic toxicity to fish

NOEC, Pimephales promelas (fathead minnow), 33 d, >= 10 mg/l

Product name: MOLYKOTE® EM-30L Grease Revision Date: 24.01.2024

Version: 5.0

# Chronic toxicity to aquatic invertebrates

No toxicity at the limit of solubility NOEC, Daphnia magna (Water flea), 22 d, >= 7.64 mg/l

# 12.2 Persistence and degradability

# Melamine cyanurate

Biodegradability: Material is not readily biodegradable according to OECD/EEC guidelines.

**Biodegradation:** 3 % Exposure time: 28 d

Method: OECD Test Guideline 301B

# 12.3 Bioaccumulative potential

#### Melamine cyanurate

**Bioaccumulation:** Bioaccumulation is unlikely.

Partition coefficient: n-octanol/water(log Pow): -2.28 at 25 °C

#### 12.4 Mobility in soil

# Melamine cyanurate

Potential for mobility in soil is high (Koc between 50 and 150).

Partition coefficient (Koc): 53.4 Estimated.

#### 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.

#### Melamine cyanurate

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

# Melamine cyanurate

This substance is not on the Montreal Protocol list of substances that deplete the ozone layer.

# SECTION 13: DISPOSAL CONSIDERATIONS

# 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.

#### SECTION 14: TRANSPORT INFORMATION

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

**14.1 UN number or ID number** Not applicable

**14.2 UN proper shipping name** Not regulated for transport

14.3 Transport hazard class(es) Not applicable14.4 Packing group Not applicable

**14.5** Environmental hazards Not considered environmentally hazardous based on

available data.

14.6 Special precautions for user No data available.

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

14.1 UN number or ID number Not applicable

**14.2 UN proper shipping name** Not regulated for transport

14.3 Transport hazard class(es) Not applicable14.4 Packing group Not applicable

**14.5 Environmental hazards** Not considered as marine pollutant based on available data.

**14.6 Special precautions for user** No data available.

14.7 Maritime transport in bulk

**according to IMO**Consult IMO regulations before transporting ocean bulk **instruments** 

#### Classification for AIR transport (IATA/ICAO):

**14.1 UN number or ID number** Not applicable

**14.2 UN proper shipping name** Not regulated for transport

14.3 Transport hazard class(es) Not applicable
 14.4 Packing group Not applicable
 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

Page 13 of 16

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.

#### **SECTION 15: REGULATORY INFORMATION**

# 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.

# 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: Not applicable

#### **Further information**

Take note of Directive 92/85/EEC regarding maternity protection or stricter national regulations, where applicable.

#### 15.2 Chemical safety assessment

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

#### **SECTION 16: OTHER INFORMATION**

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

H361f Suspected of damaging fertility.

H373 May cause damage to organs through prolonged or repeated exposure.

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

Repr. - 2 - H361f - Calculation method

# Revision

Identification Number: 1851721 / A670 / Issue Date: 24.01.2024 / Version: 5.0

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

#### Legend

Repr. Repr	productive toxicity
------------	---------------------

Page 14 of 16

Revision Date: 24.01.2024 Version: 5.0

STOT RE Specific target organ toxicity - repeated exposure

#### 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