

## **SAFETY DATA SHEET**

## SPECIALTY ELECTRONIC MATERIALS UK LIMITED

Safety Data Sheet according to Reg. (EU) No 2015/830

Product name: MOLYKOTE™ BG-555 Low Noise Grease Revision Date: 22.10.2018

Version: 4.0

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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™ BG-555 Low Noise 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 STATION ROAD, BIRCH VALE, HIGH PEAK DERBYSHIRE England SK22 1BR UNITED KINGDOM

Customer Information Number: 800-3876-6838

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:

Chronic aquatic toxicity - Category 2 - H411

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

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## 2.2 Label elements

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

## **Hazard pictograms**



#### **Hazard statements**

H411 Toxic to aquatic life with long lasting effects.

## **Precautionary statements**

P273 Avoid release to the environment.

P391 Collect spillage.

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

## Supplemental information

EUH208 Contains: Barium bis(dinonylnaphtalenesulphonate). May produce an allergic

reaction.

#### 2.3 Other hazards

No data available

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

Chemical nature: Organic grease

3.2 Mixtures

This product is a mixture.

CASRN / EC-No. / Index-No.	REACH Registration Number	Concentration	Component	Classification: REGULATION (EC) No 1272/2008
CASRN 5285-60-9 EC-No. 226-122-6 Index-No.	-	>= 1.7 - <= 2.3 %	(Di-butylamino) diphenylmethane	Acute Tox 4 - H302 Aquatic Acute - 1 - H400 Aquatic Chronic - 1 - H410

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CASRN 25619-56-1 EC-No. 247-132-7	-	bis(dinonylnaphtale nesulphonate)	Acute Tox 4 - H302 Acute Tox 4 - H332 Skin Irrit 2 - H315 Eye Irrit 2 - H319
Index-No.			Skin Sens 1 - H317
056-002-00-7			

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:** 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. 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.

## **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.

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## 5.2 Special hazards arising from the substance or mixture

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

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.

## 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:** Do not release the product to the aguatic 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.

## **SECTION 7: HANDLING AND STORAGE**

7.1 Precautions for safe handling: Do not get on skin or clothing. Do not swallow. Avoid contact with 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.

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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): See the technical data sheet on this product for further information.

## 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.

Component	Regulation	Type of listing	Value/Notation
Barium	ACGIH	TWA	0.5 mg/m3 , Barium
bis(dinonylnaphtalenesulpho nate)			
·	GB EH40	TWA	0.5 mg/m3 , Barium
	2006/15/EC	TWA	0.5 mg/m3 , Barium

#### 8.2 Exposure controls

Engineering controls: Use engineering controls to maintain airborne level below exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, use only with adequate ventilation. Local exhaust ventilation may be necessary for some 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. Examples of preferred glove barrier materials include: Chlorinated polyethylene. Neoprene. Polyethylene. Ethyl vinyl alcohol laminate ("EVAL"). Polyvinyl chloride ("PVC" or "vinyl"). Viton. Examples of acceptable glove barrier materials include: Butyl rubber. Natural rubber ("latex"). Nitrile/butadiene rubber ("nitrile" or "NBR"). Polyvinyl alcohol ("PVA"). When prolonged or frequently repeated contact may occur, a glove with a protection class of 5 or higher (breakthrough time greater than 240 minutes according to EN 374) is recommended. When only brief contact is expected, a glove with a protection class of 3 or higher (breakthrough time greater than 60 minutes according to EN 374) is recommended. Glove thickness alone is not a good indicator of the level of protection a glove provides against a chemical substance as this level of protection is also highly dependent on the specific composition of the material that the glove is fabricated from. The thickness of the glove must, depending on model and type of material, generally be more than 0.35 mm to offer sufficient protection for prolonged and frequent contact with the substance. As an exception to this general rule it is known that multilayer laminate gloves may offer prolonged protection at thicknesses less than 0.35 mm. Other glove materials with a thickness of less than 0.35 mm may offer sufficient protection when only brief contact is expected. 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,

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> 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, use an approved respirator. Selection of air-purifying or positivepressure supplied-air will depend on the specific operation and the potential airborne concentration of the material. For emergency conditions, use an approved positive-pressure self-contained breathing apparatus.

Use the following CE approved air-purifying respirator: Organic vapor cartridge with a particulate pre-filter, type AP2.

## **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

**Appearance** 

Physical state Grease Color light yellow Odor slight

**Odor Threshold** No data available Not applicable Hq Melting point/range No data available Freezing point No data available Boiling point (760 mmHg) Not applicable Flash point closed cup 225 °C **Evaporation Rate (Butyl Acetate** Not applicable

= 1)

Not classified as a flammability hazard Flammability (solid, gas)

Lower explosion limit No data available **Upper explosion limit** No data available **Vapor Pressure** Not applicable Relative Vapor Density (air = 1) No data available

Relative Density (water = 1) 1.0

Water solubility No data available Partition coefficient: n-No data available

octanol/water

**Auto-ignition temperature** No data available **Decomposition temperature** No data available **Dynamic Viscosity** Not applicable **Kinematic Viscosity** Not applicable

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Explosive properties Not explosive

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

9.2 Other information

Molecular weightNo data availableParticle sizeNo 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

No hazardous decomposition products are known.

## **SECTION 11: TOXICOLOGICAL INFORMATION**

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

## 11.1 Information on toxicological effects Acute toxicity

#### **Acute oral toxicity**

Low toxicity if swallowed. Small amounts swallowed incidentally as a result of normal handling operations are not likely to cause injury; however, swallowing larger amounts may cause injury.

As product: Single dose oral LD50 has not been determined.

Based on information for component(s): LD50, Rat, > 2,000 mg/kg Estimated.

## Acute dermal toxicity

Prolonged skin contact is unlikely to result in absorption of harmful amounts.

As product: The dermal LD50 has not been determined.

Based on information for component(s): LD50, Rat, > 2,000 mg/kg Estimated.

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## Acute inhalation toxicity

Prolonged excessive exposure to mist may cause adverse effects.

As product: The LC50 has not been determined.

#### Skin corrosion/irritation

Brief contact may cause slight skin irritation with local redness.

## Serious eye damage/eye irritation

May cause slight eye irritation.

May cause slight temporary corneal injury.

#### Sensitization

For skin sensitization:

Contains component(s) which have caused allergic skin sensitization in guinea pigs.

For respiratory sensitization:

No relevant data found.

## Specific Target Organ Systemic Toxicity (Single Exposure)

Evaluation of available data suggests that this material is not an STOT-SE toxicant.

## Specific Target Organ Systemic Toxicity (Repeated Exposure)

Based on information for component(s):

May cause methemoglobinemia, thereby impairing the blood's ability to transport oxygen.

## Carcinogenicity

No relevant data found.

## **Teratogenicity**

Contains component(s) which caused birth defects in lab animals at doses nontoxic to the mother.

#### Reproductive toxicity

Contains component(s) which did not interfere with reproduction in animal studies.

## Mutagenicity

Contains a component(s) which were negative in in vitro genetic toxicity studies.

## **Aspiration Hazard**

Based on physical properties, not likely to be an aspiration hazard.

## COMPONENTS INFLUENCING TOXICOLOGY:

## (Di-butylamino) diphenylmethane

Acute inhalation toxicity

The LC50 has not been determined.

## Barium bis(dinonylnaphtalenesulphonate)

Acute inhalation toxicity

LC50, Rat, 1 Hour, dust/mist, > 21 mg/l No deaths occurred at this concentration.

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## **SECTION 12: ECOLOGICAL INFORMATION**

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

## 12.1 Toxicity

## (Di-butylamino) diphenylmethane

#### Acute toxicity to fish

Material is very toxic to aquatic organisms (LC50/EC50/IC50 below 1 mg/L in the most sensitive species).

## Acute toxicity to aquatic invertebrates

For similar material(s):

EC50, Daphnia magna (Water flea), 48 Hour, 0.35 mg/l, OECD Test Guideline 202

## Chronic toxicity to aquatic invertebrates

For similar material(s):

NOEC, Daphnia magna (Water flea), 21 d, 0.0053 mg/l

## Barium bis(dinonylnaphtalenesulphonate)

## Acute toxicity to fish

Material is not classified as dangerous to aquatic organisms (LC50/EC50/IC50/LL50/EL50 greater than 100 mg/L in most sensitive species).

Toxicity to aquatic species occurs at concentrations above material's water solubility. For similar material(s):

LL50, Cyprinus carpio (Carp), 96 Hour, > 100 mg/l, OECD Test Guideline 203

## Acute toxicity to aquatic invertebrates

For similar material(s):

EL50, Daphnia magna (Water flea), 48 Hour, > 100 mg/l, OECD Test Guideline 202

## Acute toxicity to algae/aquatic plants

For similar material(s):

EL50, Pseudokirchneriella subcapitata (green algae), 72 Hour, > 100 mg/l, OECD Test Guideline 201

## Toxicity to bacteria

For similar material(s):

EC50, 3 Hour, > 100 mg/l, OECD Test Guideline 209

#### 12.2 Persistence and degradability

## (Di-butylamino) diphenylmethane

Biodegradability: No relevant data found.

## Barium bis(dinonylnaphtalenesulphonate)

Biodegradability: For similar material(s): Material is expected to biodegrade very slowly (in

the environment). Fails to pass OECD/EEC tests for ready biodegradability.

10-day Window: Fail **Biodegradation:** 14 % **Exposure time:** 28 d

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Method: OECD Test Guideline 301B

## 12.3 Bioaccumulative potential

## (Di-butylamino) diphenylmethane

Bioaccumulation: Bioconcentration potential is high (BCF > 3000 or Log Pow between 5 and

Partition coefficient: n-octanol/water(log Pow): 6.08 Estimated.

## Barium bis(dinonylnaphtalenesulphonate)

Bioaccumulation: Bioconcentration potential is high (BCF > 3000 or Log Pow between 5 and 7).

Partition coefficient: n-octanol/water(log Pow): 6.7 estimated

## 12.4 Mobility in soil

## (Di-butylamino) diphenylmethane

Expected to be relatively immobile in soil (Koc > 5000).

Given its very low Henry's constant, volatilization from natural bodies of water or moist soil is not expected to be an important fate process.

Partition coefficient (Koc): > 5000 Estimated.

## **Barium bis(dinonylnaphtalenesulphonate)**

Expected to be relatively immobile in soil (Koc > 5000).

Partition coefficient (Koc): > 5000 Estimated.

#### 12.5 Results of PBT and vPvB assessment

#### (Di-butylamino) diphenylmethane

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

#### Barium bis(dinonylnaphtalenesulphonate)

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

#### 12.6 Other adverse effects

## (Di-butylamino) diphenylmethane

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

## **Barium bis(dinonylnaphtalenesulphonate)**

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.

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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** UN 3077

**14.2 UN proper shipping name** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID,

N.O.S.((Di-butylamino) diphenylmethane)

14.3 Transport hazard class(es) 914.4 Packing group |||

**14.5 Environmental hazards** (Di-butylamino) diphenylmethane

14.6 Special precautions for user

Hazard Identification Number: 90

Classification for SEA transport (IMO-IMDG):

**14.1 UN number** UN 3077

14.2 UN proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID,

N.O.S.((Di-butylamino) diphenylmethane)

14.3 Transport hazard class(es) 914.4 Packing group |||

**14.5 Environmental hazards** (Di-butylamino) diphenylmethane

14.6 Special precautions for user EmS: F-A, S-F

14.7 Transport in bulk according

to Annex I or II of MARPOL 73/78 and the IBC or IGC

Consult IMO regulations before transporting ocean bulk

Code

Classification for AIR transport (IATA/ICAO):

**14.1 UN number** UN 3077

**14.2 UN proper shipping name** Environmentally hazardous substance, solid, n.o.s.((Di-

butylamino) diphenylmethane)

14.3 Transport hazard class(es) 914.4 Packing group |||

**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

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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 pre-registered, 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: ENVIRONMENTAL HAZARDS

Number in Regulation: E2

200 t 500 t

## 15.2 Chemical safety assessment

Not applicable

## **SECTION 16: OTHER INFORMATION**

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

H302	Harmful if swallowed.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H332	Harmful 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

Aquatic Chronic - 2 - H411 - Calculation method

#### Revision

Identification Number: 4018464 / A670 / Issue Date: 22.10.2018 / Version: 4.0

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

document.

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Legend

2006/15/EC	Europe. Indicative occupational exposure limit values
ACGIH	USA. ACGIH Threshold Limit Values (TLV)
GB EH40	UK. EH40 WEL - Workplace Exposure Limits
TWA	8-hour, time-weighted average
Acute Tox.	Acute toxicity
Aquatic Acute	Acute aquatic toxicity
Aquatic Chronic	Chronic aquatic toxicity
Eye Irrit.	Eye irritation
Skin Irrit.	Skin irritation
Skin Sens.	Skin sensitisation

## Full text of other abbreviations

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; 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; 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.

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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.

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