

SAFETY DATA SHEET

SPECIALTY ELECTRONIC MATERIALS SWITZERLAND GMBH

Product name: MOLYKOTE® TP-42 Paste

Issue Date: 2024.07.22
Print Date: 2024.07.24

SPECIALTY ELECTRONIC MATERIALS SWITZERLAND GMBH 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.

1. PRODUCT AND COMPANY IDENTIFICATION

Product name: MOLYKOTE® TP-42 Paste

Recommended use of the chemical and restrictions on use

Identified uses: Lubricants and lubricant additives

COMPANY IDENTIFICATION

SPECIALTY ELECTRONIC MATERIALS SWITZERLAND GMBH GROSSMATTE 4 6014 LUZERN SWITZERLAND

Customer Information Number: 00800-3876-6838

SDSQuestion-EU@dupont.com

EMERGENCY TELEPHONE NUMBER

24-Hour Emergency Contact: +(41)- 435082011 **Local Emergency Contact:** +1 703-741-5970

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

Specific target organ toxicity - single exposure - Category 3 - H335 For the full text of the H-Statements mentioned in this Section, see Section 16.

Label elements

Hazard pictograms



Signal word: WARNING

Hazard statements

H335 May cause respiratory irritation.

Precautionary statements

P261 Avoid breathing dust.

P271 Use only outdoors or in a well-ventilated area.

P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a

+ P312 POISON CENTER/ doctor if you feel unwell.

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

P405 Store locked up.

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

Contains Calcium hydroxide

Other hazards

This product contains no substances assessed to be PBT or vPvB at levels of 0.1% or higher.

3. COMPOSITION/INFORMATION ON INGREDIENTS

This product is a mixture.

CASRN / EC-No. / Index-No.	Concentration	Component	Classification
CASRN 1305-62-0 EC-No. 215-137-3 Index-No.	>= 30.0 - < 40.0 %	Calcium hydroxide	Skin Irrit 2 - H315 Eye Dam 1 - H318 STOT SE - 3 - H335
CASRN 8042-47-5 EC-No. 232-455-8 Index-No.	>= 20.0 - < 30.0 %	White mineral oil (petroleum)	Asp. Tox 1 - H304
CASRN 64742-52-5 EC-No. 265-155-0 Index-No. 649-465-00-7	>= 10.0 - < 20.0 %	Distillates (petroleum), hydrotreated heavy naphthenic	Not classified

CASRN >= 1.0 - < 10.0 % Solvent dewaxed heavy Not classified 64742-65-0 paraffinic distillates EC-No. 265-169-7 Index-No. 649-474-00-6 **CASRN** >= 1.0 - < 10.0 % Lithium 12-Not classified 7620-77-1 hydroxyoctadecanoate EC-No. 231-536-5 Index-No.

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

Note

Distillates (petroleum), hydrotreated heavy naphthenic:

The classification as a carcinogen need not to apply because the substance contains less than 3% DMSO extract as measured by IP 346. Note L of Annex VI to Regulation (EC) 1272/2008.

Note

Solvent dewaxed heavy paraffinic distillates:

The classification as a carcinogen need not to apply because the substance contains less than 3% DMSO extract as measured by IP 346. Note L of Annex VI to Regulation (EC) 1272/2008.

4. FIRST AID MEASURES

Description of first aid measures

General advice: 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: No emergency medical treatment necessary.

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.

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.

Page 3 of 15

5. FIREFIGHTING MEASURES

Extinguishing media

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

Unsuitable extinguishing media: None known...

Special hazards arising from the substance or mixture

Hazardous combustion products: Metal oxides. Carbon oxides. Oxides of phosphorus. Formaldehyde.

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

Advice for firefighters

Fire Fighting Procedures: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Use water spray to cool unopened containers. Remove undamaged containers from fire area if it is safe to do so. Evacuate area.

Special protective equipment for firefighters: Wear self-contained breathing apparatus for firefighting if necessary.. Use personal protective equipment..

6. ACCIDENTAL RELEASE MEASURES

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

Ignition Sources Removal: Keep away from sources of ignition.

Dust Control: Use care to minimize generation of airborne dust.

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.

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

7. HANDLING AND STORAGE

Precautions for safe handling: 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.

Page 4 of 15

Use with local exhaust ventilation. See Engineering measures under EXPOSURE CONTROLS/PERSONAL PROTECTION section.

Conditions for safe storage: Keep in properly labelled containers. Store locked up. Keep tightly closed. Keep in a cool, well-ventilated place. 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.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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		
White mineral oil (petroleum)	ACGIH	TWA Inhalable	5 mg/m3		
		particulate matter			
		t classifiable as a human care			
	ARE OEL	TWA Measured as	5 mg/m3		
		inhalable fraction of			
		the aerosol.			
		t Classifiable as a Human Ca			
	ARE OEL	TWA Mist	0.2 mg/m3		
Distillates (petroleum),	ACGIH	TWA Inhalable	5 mg/m3		
hydrotreated heavy		particulate matter			
naphthenic					
	Further information: A4: No	t classifiable as a human car			
	ARE OEL	TWA Mist	0.2 mg/m3		
	ARE OEL	TWA Measured as	5 mg/m3		
		inhalable fraction of			
		the aerosol.			
		t Classifiable as a Human Ca			
Solvent dewaxed heavy	ACGIH	TWA Inhalable	5 mg/m3		
paraffinic distillates		particulate matter			
		t classifiable as a human card			
	ARE OEL	TWA Mist	0.2 mg/m3		
Lithium 12-	ACGIH	TWA Inhalable	10 mg/m3		
hydroxyoctadecanoate		particulate matter			
		t classifiable as a human card			
	ACGIH	TWA Respirable	3 mg/m3		
		particulate matter			
	Further information: A4: Not classifiable as a human carcinogen				
	ARE OEL	TWA	10 mg/m3		
		t Classifiable as a Human Ca	rcinogen; (J): Does not		
	include stearates of toxic m	etais.			

Although some of the components of this product may have exposure guidelines, no exposure would be expected under normal handling conditions due to the physical state of the material.

Exposure controls

Engineering controls: 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.

Skin protection

Hand protection: Use gloves chemically resistant to this material when prolonged or frequently repeated contact could occur. 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. Nitrile/butadiene rubber ("nitrile" or "NBR"). Polyethylene. Ethyl vinyl alcohol laminate ("EVAL"). Polyvinyl alcohol ("PVA"). Viton. Examples of acceptable glove barrier materials include: Butyl rubber. Natural rubber ("latex"). Polyvinyl chloride ("PVC" or "vinyl"). When prolonged or frequently repeated contact may occur, 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, 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. 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. For most conditions, no respiratory protection should be needed; however, if handling at elevated temperatures without sufficient ventilation, use an approved air-purifying respirator.

Use the following CE approved air-purifying respirator: Organic vapor cartridge, type A (boiling point >65 °C, meeting standard EN 14387).

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

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Physical state paste
Color white
Odor none

Odor Threshold No data available

pH Not applicable

Melting point/ range No data available

Freezing point No data available

Boiling point (760 mmHg) Not applicable

Flash point closed cup 160 °C

Evaporation Rate (Butyl Acetate

= 1)

Not applicable

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

Lower explosion limitNo data availableUpper explosion limitNo data availableVapor PressureNot applicableRelative Vapor Density (air = 1)No data available

Relative Density (water = 1) 1.1

Water solubility

No data available

Partition coefficient: n
No data available

octanol/water

Auto-ignition temperatureNo data availableDecomposition temperatureNo data availableDynamic ViscosityNot applicableKinematic ViscosityNot applicableExplosive propertiesNot explosive

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

Molecular weightNo data availableParticle sizeNo data available

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

10. STABILITY AND REACTIVITY

Reactivity: Not classified as a reactivity hazard.

Chemical stability: Stable under normal conditions.

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

Conditions to avoid: None known.

Incompatible materials: Oxidizing agents

Hazardous decomposition products:

Decomposition products can include and are not limited to: 1-Butene.

11. TOXICOLOGICAL INFORMATION

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

Page 7 of 15

Acute toxicity

Acute oral toxicity

Very low toxicity if swallowed. Harmful effects not anticipated from swallowing small amounts.

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

Based on information for component(s):

LD50. Rat. > 5,000 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. Rabbit. > 2,000 mg/kg Estimated.

Acute inhalation toxicity

Brief exposure (minutes) is not likely to cause adverse effects. Vapor from heated material may cause respiratory irritation.

As product: The LC50 has not been determined.

Skin corrosion/irritation

Based on product testing:

Brief contact is essentially nonirritating to skin.

Serious eye damage/eye irritation

Based on product testing:

May cause moderate eye irritation.

Effects are likely to heal readily.

Corneal injury is unlikely.

Sensitization

For skin sensitization:

Contains component(s) which did not cause allergic skin sensitization in guinea pigs.

Contains component(s) which have not demonstrated the potential for contact allergy in mice.

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)

Contains component(s) which have been reported to cause effects on the following organs in animals: Liver.

Carcinogenicity

Contains component(s) which did not cause cancer in laboratory animals.

Teratogenicity

Contains component(s) which, in laboratory animals, have been toxic to the fetus only at doses toxic to the mother. Contains component(s) which did not cause birth defects in laboratory animals.

Reproductive toxicity

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

Mutagenicity

Contains component(s) which were negative in some in vitro genetic toxicity studies and positive in others. Contains component(s) which were negative in animal genetic toxicity studies.

Aspiration Hazard

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

COMPONENTS INFLUENCING TOXICOLOGY:

Calcium hydroxide

Acute inhalation toxicity

LC50. Rat. 4 Hour. dust/mist. > 6.04 mg/l OECD Test Guideline 436

White mineral oil (petroleum)

Acute inhalation toxicity

LC50. Rat. 4 Hour. dust/mist. > 5 mg/l OECD Test Guideline 403

Distillates (petroleum), hydrotreated heavy naphthenic

Acute inhalation toxicity

Excessive exposure may cause irritation to upper respiratory tract (nose and throat) and lungs.

LC50. Rat. 3 Hour. dust/mist. > 3.11 mg/l No deaths occurred at this concentration.

Solvent dewaxed heavy paraffinic distillates

Acute inhalation toxicity

LC50. Rat. male and female. 4 Hour. dust/mist. > 5 mg/l No deaths occurred at this concentration.

Lithium 12-hydroxyoctadecanoate

Acute inhalation toxicity

The LC50 has not been determined.

12. ECOLOGICAL INFORMATION

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

Toxicity

Calcium hydroxide

Acute toxicity to algae/aquatic plants

EC50. Raphidocelis subcapitata (freshwater green alga). 72 Hour. 184.47 mg/l. OECD Test Guideline 201

NOEC. Raphidocelis subcapitata (freshwater green alga). 72 Hour. 48 mg/l. OECD Test Guideline 201

Toxicity to bacteria

EC50. 3 Hour. 300.4 mg/l. OECD Test Guideline 209

Chronic toxicity to aquatic invertebrates

NOEC. 14 d. 32 mg/l

White mineral oil (petroleum)

Acute toxicity to fish

Information given is based on data obtained from similar substances.

LC50. Leuciscus idus (Golden orfe). 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 (Water flea). 48 Hour. > 100 mg/l. OECD Test Guideline 202

Acute toxicity to algae/aquatic plants

NOEC. Pseudokirchneriella subcapitata (green algae). 72 Hour. 100 mg/l. OECD Test Guideline 201

Chronic toxicity to aquatic invertebrates

Based on data from similar materials

NOEC. Daphnia magna (Water flea). 21 d. 10 mg/l

Distillates (petroleum), hydrotreated heavy naphthenic

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).

LC50. Oncorhynchus mykiss (rainbow trout). static test. 96 Hour. > 1,000 mg/l. OECD Test Guideline 203 or Equivalent

LC50. Oncorhynchus mykiss (rainbow trout). 96 Hour. > 5,000 mg/l. OECD Test Guideline 203 or Equivalent

Acute toxicity to aquatic invertebrates

EC50. Daphnia magna (Water flea). static test. 48 Hour. > 1,000 mg/l. OECD Test Guideline 202 or Equivalent

EC50. scud Gammarus sp.. 96 Hour. > 10,000 mg/l. Method Not Specified.

Acute toxicity to algae/aguatic plants

EbC50. alga Scenedesmus sp.. static test. 96 Hour. Biomass. > 1,000 mg/l. OECD Test Guideline 201 or Equivalent

Chronic toxicity to fish

NOEC. Pimephales promelas (fathead minnow). 7 d. growth. > 5,000 mg/l

Chronic toxicity to aquatic invertebrates

NOEC. Daphnia magna (Water flea). 21 d. number of offspring. > 1,000 mg/l

Solvent dewaxed heavy paraffinic distillates

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).

LL50. Pimephales promelas (fathead minnow). static test. 96 Hour. > 100 mg/l

Acute toxicity to aquatic invertebrates

EL50. Daphnia magna (Water flea). static test. 48 Hour. > 10,000 mg/l

Acute toxicity to algae/aguatic plants

NOEC. Pseudokirchneriella subcapitata (green algae). static test. 72 Hour. Growth rate. > 100 mg/l

Toxicity to bacteria

Based on data from similar materials

NOEC. 10 min. > 1.93 mg/l. DIN 38 412 Part 8

Chronic toxicity to aquatic invertebrates

Based on data from similar materials

NOEC. Daphnia magna (Water flea). 21 d. 10 mg/l

Lithium 12-hydroxyoctadecanoate

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).

LC50. Oncorhynchus mykiss (rainbow trout). semi-static test. 96 Hour. > 100 mg/l. OECD Test Guideline 203

Acute toxicity to aquatic invertebrates

EC50. Daphnia magna (Water flea). static test. 48 Hour. > 100 mg/l. OECD Test Guideline 202

Acute toxicity to algae/aquatic plants

EC50. Pseudokirchneriella subcapitata (green algae). static test. 72 Hour. Growth rate. > 160 mg/l. OECD Test Guideline 201

Persistence and degradability

White mineral oil (petroleum)

Biodegradability: Not readily biodegradable. Information given is based on data obtained from similar substances.

Biodegradation: 31 % Exposure time: 28 d

Method: OECD Test Guideline 301F

Distillates (petroleum), hydrotreated heavy naphthenic

Biodegradability: Material is expected to biodegrade very slowly (in the environment). Fails to pass OECD/EEC tests for ready biodegradability. Material is inherently biodegradable (reaches > 20% biodegradation in OECD test(s) for inherent biodegradability).

10-day Window: Fail **Biodegradation:** 6 % **Exposure time:** 28 d

Method: OECD Test Guideline 301B or Equivalent

10-day Window: Fail

Biodegradation: 22 - 51 % Exposure time: 21 - 28 d

Photodegradation

Test Type: Half-life (indirect photolysis)

Sensitization: OH radicals

Solvent dewaxed heavy paraffinic distillates

Biodegradability: Material is expected to biodegrade very slowly (in the environment). Fails

to pass OECD/EEC tests for ready biodegradability.

10-day Window: Fail **Biodegradation:** 2 % **Exposure time:** 28 d

Method: OECD Test Guideline 301B

Lithium 12-hydroxyoctadecanoate

Biodegradability: Material is readily biodegradable. Passes OECD test(s) for ready

biodegradability. 10-day Window: Pass Biodegradation: 78 % Exposure time: 28 d

Method: OECD Test Guideline 301C

Bioaccumulative potential

Calcium hydroxide

Bioaccumulation: Not applicable

White mineral oil (petroleum)

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

7).

Partition coefficient: n-octanol/water(log Pow): 5.18 Measured

<u>Distillates (petroleum), hydrotreated heavy naphthenic</u>

Partition coefficient: n-octanol/water(log Pow): 1.99 - 18.02

Solvent dewaxed heavy paraffinic distillates

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

7).

Partition coefficient: n-octanol/water(log Pow): 3.9 - 6 Estimated.

Lithium 12-hydroxyoctadecanoate

Bioaccumulation: No relevant data found.

Mobility in soil

Calcium hydroxide

No relevant data found.

White mineral oil (petroleum)

Potential for mobility in soil is low (Koc between 500 and 2000).

Partition coefficient (Koc): 510 Estimated.

Solvent dewaxed heavy paraffinic distillates

No relevant data found.

Lithium 12-hydroxyoctadecanoate

No relevant data found.

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.

Other adverse effects

Calcium hydroxide

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

White mineral oil (petroleum)

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

Distillates (petroleum), hydrotreated heavy naphthenic

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

Solvent dewaxed heavy paraffinic distillates

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

Lithium 12-hydroxyoctadecanoate

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

13. DISPOSAL CONSIDERATIONS

Disposal 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.

14. TRANSPORT INFORMATION

Classification for ROAD and Rail transport:

Not regulated for transport

Classification for SEA transport (IMO-IMDG):

Not regulated for transport

Transport in bulk according to Annex I or II of MARPOL 73/78 and the IBC or IGC Code

Consult IMO regulations before transporting ocean bulk

Classification for AIR transport (IATA/ICAO):

Not regulated for transport

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.

15. REGULATORY INFORMATION

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

Classification and labeling have been performed according to Regulation (EC) No 1272/2008.

16. OTHER INFORMATION

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

H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H335	May cause respiratory irritation.

Revision

Identification Number: 1553003 / A715 / Issue Date: 2024.07.22 / Version: 4.0 Most recent revision(s) are noted by the bold, double bars in left-hand margin throughout this document.

Legend

ACGIH	USA. ACGIH Threshold Limit Values (TLV)	
ARE OEL	Abu Dhabi Emirate - EHSMS Manual, Volume 2, Environment, Health and Safety	
	Protection Policies, Section 2, Part I: EEPP Air Quality Standards	
TWA	8-hour, time-weighted average	
Asp. Tox.	Aspiration hazard	
Eye Dam.	Serious eye damage	
Skin Irrit.	Skin irritation	
STOT SE	Specific target organ toxicity - single 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; TSCA - Toxic Substances Control Act (United States); UN -United Nations: UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods: 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 SWITZERLAND GMBH 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.

ΑE