SAFETY DATA SHEET

SPECIALTY ELECTRONIC MATERIALS SWITZERLAND GMBH

Product name: MOLYKOTE® G-Rapid Plus Paste

Issue Date: 2025.05.16
Print Date: 2025.06.04

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® G-Rapid Plus 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
Skin irritation - Category 2 - H315
Serious eye damage - Category 1 - H318
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: DANGER

Hazard statements

H315	Causes skin irritation.
H318	Causes serious eye damage.
H335	May cause respiratory irritation.

Precautionary statements

P261	Avoid breathing dust.
P264	Wash skin thoroughly after handling.
P280	Wear protective gloves/ eye protection/ face protection.
P304 + P340 + P312	IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor if you feel unwell.
P305 + P351 + P338 + P310	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/ doctor.
P403 + P233	Store in a well-ventilated place. Keep container tightly closed.

Supplemental information
The following percentage of the mixture consists of ingredient(s) with unknown acute dermal toxicity:
8.9 %

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

Chemical nature: Inorganic and organic compounds, Mixture
This product is a mixture.

CASRN / EC-No. / Index-No.	Concentration	Component	Classification
CASRN 8042-47-5 **EC-No.** 232-455-8 **Index-No.** –	>= 40.0 - < 50.0 %	White mineral oil (petroleum)	Asp. Tox. - 1 - H304
CASRN 1305-62-0 **EC-No.** 215-137-3	>= 20.0 - < 30.0 %	Calcium hydroxide	Skin Irrit. - 2 - H315 Eye Dam. - 1 - H318 STOT SE - 3 - H335

Index-No. –			
CASRN 1317-33-5 **EC-No.** 215-263-9 **Index-No.** –	>= 20.0 - < 30.0 %	Molybdenum disulfide	Not classified
CASRN 7782-42-5 **EC-No.** 231-955-3 **Index-No.** –	>= 1.0 - < 10.0 %	Graphite	Not classified

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

4. FIRST AID MEASURES

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: If inhaled Move person to fresh air; if effects occur, consult a physician.

Skin contact: In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. If skin irritation occurs: Get medical advice/ attention.

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. Consult a physician if 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.

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: Sulphur oxides. Metal oxides. Carbon oxides.

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

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..

6. ACCIDENTAL RELEASE MEASURES

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

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: Do not swallow. Do not get in eyes. Avoid prolonged or repeated contact with skin. Keep container tightly closed. 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.

Conditions for safe storage: Keep in properly labelled containers. Keep tightly closed. 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 particulate matter	5 mg/m3
	Further information: A4: Not classifiable as a human carcinogen		
	ARE OEL	TWA Measured as inhalable fraction of the aerosol.	5 mg/m3
	Further information: A4: Not Classifiable as a Human Carcinogen		
	ARE OEL	TWA Mist	0.2 mg/m3
Calcium hydroxide	ACGIH	TWA	5 mg/m3
	2017/164/EU	TWA Respirable fraction	1 mg/m3
	Further information: Indicative		
	2017/164/EU	STEL Respirable fraction	4 mg/m3
	Further information: Indicative		
Molybdenum disulfide	ACGIH	TWA Inhalable particulate matter	10 mg/m3 , Molybdenum
	ACGIH	TWA Respirable particulate matter	3 mg/m3 , Molybdenum
	ARE OEL	TWA Respirable dust	3 mg/m3 , Molybdenum
	ARE OEL	TWA Measured as inhalable fraction of the aerosol.	10 mg/m3 , Molybdenum
Graphite	ACGIH	TWA Respirable particulate matter	2 mg/m3
	ARE OEL	TWA Respirable dust	2 mg/m3

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.

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. If there is a potential for exposure to particles which could cause eye discomfort, wear chemical goggles. Chemical goggles 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.

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	black
Odor	slight
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** >200.0 °C
Evaporation Rate (Butyl Acetate = 1)	Not applicable
Flammability (solid, gas)	Not classified as a flammability hazard
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)	1.4
Water solubility	No data available
Partition coefficient: n-octanol/water	No data available
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Dynamic Viscosity	Not applicable
Kinematic Viscosity	Not applicable
Explosive properties	Not explosive
Oxidizing properties	The substance or mixture is not classified as oxidizing.
Molecular weight	No data available
Particle size	No 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. When heated to temperatures above 150 °C (300 °F) in the presence of air, product can form formaldehyde vapours. Safe handling conditions may be maintained by keeping vapour concentrations within the occupational exposure limit for formaldehyde.

Conditions to avoid: None known.

Incompatible materials: Oxidizing agents

Hazardous decomposition products
No hazardous decomposition products are known.

11. TOXICOLOGICAL INFORMATION

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

Acute toxicity

Acute oral toxicity
Product test data not available. Refer to component data.

Acute dermal toxicity
Product test data not available. Refer to component data.

Acute inhalation toxicity
Product test data not available. Refer to component data.

Skin corrosion/irritation
Product test data not available. Refer to component data.

Serious eye damage/eye irritation
Product test data not available. Refer to component data.

Sensitization
Product test data not available. Refer to component data.

Specific Target Organ Systemic Toxicity (Single Exposure)
Product test data not available. Refer to component data.

Specific Target Organ Systemic Toxicity (Repeated Exposure)
Product test data not available. Refer to component data.

Carcinogenicity
Product test data not available. Refer to component data.

Teratogenicity
Product test data not available. Refer to component data.

Reproductive toxicity
Product test data not available. Refer to component data.

Mutagenicity
Product test data not available. Refer to component data.

Aspiration Hazard
Product test data not available. Refer to component data.

COMPONENTS INFLUENCING TOXICOLOGY:

White mineral oil (petroleum)

Acute oral toxicity
LD50. Rat. > 5,000 mg/kg OECD Test Guideline 401

Acute dermal toxicity
LD50. Rabbit. > 2,000 mg/kg OECD Test Guideline 402

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

Skin corrosion/irritation
Brief contact is essentially nonirritating to skin.

Serious eye damage/eye irritation
May cause slight temporary eye irritation.

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

Specific Target Organ Systemic Toxicity (Single Exposure)
The substance or mixture is not classified as specific target organ toxicant, single exposure.

Specific Target Organ Systemic Toxicity (Repeated Exposure)
Based on available data, repeated exposures are not anticipated to cause significant adverse effects.

Carcinogenicity
Animal testing did not show any carcinogenic effects.

Teratogenicity
Did not cause birth defects or any other fetal effects in laboratory animals.

Reproductive toxicity
In animal studies, did not interfere with reproduction.

Mutagenicity

Animal genetic toxicity studies were negative. In vitro genetic toxicity studies were negative.

Aspiration Hazard
The substance or mixture is known to cause human aspiration toxicity hazards or has to be regarded as if it causes a human aspiration toxicity hazard.

Calcium hydroxide

Acute oral toxicity
LD50. Rat. > 2,000 mg/kg OECD Test Guideline 425

Acute dermal toxicity
LD50. Rabbit. > 2,500 mg/kg OECD Test Guideline 402

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

Skin corrosion/irritation
Brief contact may cause severe skin irritation with pain and local redness.

Serious eye damage/eye irritation
May cause severe irritation with corneal injury which may result in permanent impairment of vision, even blindness. Chemical burns may occur.

Sensitization
Did not demonstrate the potential for contact allergy in mice.
Information given is based on data obtained from similar substances.

Specific Target Organ Systemic Toxicity (Single Exposure)
May cause respiratory irritation.
Target Organs: Respiratory system

Specific Target Organ Systemic Toxicity (Repeated Exposure)
Based on available data, repeated exposures are not anticipated to cause significant adverse effects.

Carcinogenicity
Animal testing did not show any carcinogenic effects. Toxicity data for a compositionally similar material.

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

Reproductive toxicity
In animal studies, did not interfere with reproduction. Information given is based on data obtained from similar substances.

Mutagenicity
In vitro genetic toxicity studies were negative.

Aspiration Hazard
No aspiration toxicity classification

Molybdenum disulfide

Acute oral toxicity
LD50. Rat. > 2,000 mg/kg No deaths occurred at this concentration.

Acute dermal toxicity
LD50. Rat. male and female. > 2,000 mg/kg No deaths occurred at this concentration.

Skin corrosion/irritation
Brief contact is essentially nonirritating to skin.
Prolonged contact may cause slight skin irritation with local redness.

Serious eye damage/eye irritation
May cause slight temporary eye irritation.
Corneal injury is unlikely.

Sensitization
For skin sensitization:
Did not cause allergic skin reactions when tested 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)
No relevant data found.

Carcinogenicity
No relevant data found.

Teratogenicity
No relevant data found.

Reproductive toxicity
No relevant data found.

Mutagenicity
For similar material(s): In vitro genetic toxicity studies were negative.

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

Graphite

Acute oral toxicity
LD50. Rat. > 2,000 mg/kg OECD Test Guideline 423

Acute dermal toxicity
The dermal LD50 has not been determined.

Acute inhalation toxicity
An LC50/inhalation/4h/rat could not be determined because no mortality of rats was observed at the maximum achievable concentration. LC50. Rat. 4 Hour. dust/mist. > 2 mg/l OECD Test Guideline 403

Skin corrosion/irritation
Brief contact is essentially nonirritating to skin.

Serious eye damage/eye irritation
May cause slight temporary eye irritation.

Sensitization
Did not demonstrate the potential for contact allergy in mice.

Specific Target Organ Systemic Toxicity (Single Exposure)
The substance or mixture is not classified as specific target organ toxicant, single exposure.

Specific Target Organ Systemic Toxicity (Repeated Exposure)
Based on available data, repeated exposures are not anticipated to cause significant adverse effects.

Teratogenicity
Did not cause birth defects or any other fetal effects in laboratory animals.

Reproductive toxicity
In animal studies, did not interfere with reproduction.

Mutagenicity
In vitro genetic toxicity studies were negative.

Aspiration Hazard
No aspiration toxicity classification

12. ECOLOGICAL INFORMATION

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

Toxicity

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

Calcium hydroxide

Acute toxicity to fish
LC50. Gasterosteus aculeatus (threespine stickleback). 96 Hour. 457 mg/l. OECD Test Guideline 203

Acute toxicity to aquatic invertebrates
EC50. 48 Hour. 158 mg/l. OECD Test Guideline 202

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

Chronic toxicity to aquatic invertebrates
NOEC. 14 d. 32 mg/l

Molybdenum disulfide

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).
For similar material(s):
LC50. Fish. 96 Hour. > 100 mg/l

Acute toxicity to aquatic invertebrates
Based on data from similar materials
EC50. Daphnia magna (Water flea). 48 Hour. > 100 mg/l

Acute toxicity to algae/aquatic plants
Based on data from similar materials
ErC50. algae. 72 Hour. Growth rate. > 100 mg/l

Toxicity to bacteria
EC50. 30 Hour. Respiration rates.. > 100 mg/l

Chronic toxicity to fish
Based on data from similar materials
NOEC. Fish. 34 d. > 10 mg/l

Chronic toxicity to aquatic invertebrates
Based on data from similar materials
NOEC. Daphnia magna. 21 d. > 10 mg/l

Graphite

Acute toxicity to fish
No toxicity at the limit of solubility
LC50. Danio rerio (zebra fish). 96 Hour. > 100 mg/l. OECD Test Guideline 203

Acute toxicity to aquatic invertebrates
No toxicity at the limit of solubility
EC50. Daphnia magna (Water flea). 48 Hour. > 100 mg/l. OECD Test Guideline 202

Acute toxicity to algae/aquatic plants
EC50. Raphidocelis subcapitata (freshwater green alga). 72 Hour. > 100 mg/l. OECD Test Guideline 201

NOEC. Raphidocelis subcapitata (freshwater green alga). 72 Hour. >= 100 mg/l. OECD Test Guideline 201

Toxicity to bacteria
EC50. 3 Hour. > 1,012.5 mg/l. OECD Test Guideline 209

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

Calcium hydroxide
Biodegradability: Not applicable

Molybdenum disulfide
Biodegradability: Biodegradability is not applicable to inorganic substances.

Graphite
Biodegradability: Not applicable

Bioaccumulative potential

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

Calcium hydroxide
Bioaccumulation: Partitioning from water to n-octanol is not applicable.

Molybdenum disulfide
Bioaccumulation: Partitioning from water to n-octanol is not applicable.

Graphite
Bioaccumulation: Not applicable Not applicable

Mobility in soil

White mineral oil (petroleum)
Potential for mobility in soil is low (Koc between 500 and 2000).
Partition coefficient (Koc): 510 Estimated.

Calcium hydroxide
No data available.

Molybdenum disulfide
No relevant data found.

Graphite

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

White mineral oil (petroleum)

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

Calcium hydroxide

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

Molybdenum disulfide

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

Graphite

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: 1687697 / A715 / Issue Date: 2025.05.16 / Version: 5.0
Most recent revision(s) are noted by the bold, double bars in left-hand margin throughout this document.

Legend

2017/164/EU	Europe. Commission Directive 2017/164/EU establishing a fourth list of indicative occupational exposure limit values
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
STEL	Short term exposure limit
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.

AE