Hysol Huawei Electronics Co.,Ltd.

Safety Data Sheet according to GB/T 16483-2008

HYSOL GR 510 AND GR 510-HP series

SDS No. :
2288008
V002.1
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1. Identification of the substance/preparation and of the company/undertaking

Product name: HYSOL GR 510 AND GR 510-HP series

Intended use: Epoxy Molding Compound

Manufacturer:

Hysol Huawei Electronics Co.,Ltd
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2. Hazards identification

Classification of the substance or mixture according to GB 13690-2009 (General rule for classification and hazard communication of chemicals):

No classification required.

Label elements according to GB 15258-2009 (General rules for preparation of precautionary label for chemicals):

No classification required.

3. Composition / information on ingredients

General description: Mixture

Declaration of the ingredients according to GB 13690-2009:

Hazard component CAS-No.	Content	GHS Classification
Silicon dioxide 60676-86-0	80- < 90 %	
Epoxy resin Trade secret	5-< 10%	
Formaldehyde, polymer with (chloromethyl)oxirane and 2-methylphenol 29690-82-2	0.5- < 1.5 %	
Carbon black 1333-86-4	0.1- < 1 %	
3-Trimethoxysilylpropane-1-thiol 4420-74-0	0.1- < 1 %	Acute toxicity 4; Oral H302 Skin sensitizer 1 H317 Chronic hazards to the aquatic environment 2 H411

Only hazardous ingredients for which a classification according to GB 13690-2009 is already available are displayed in this table. For full text of the Hazard statements see section 16 “Other information”.

4. First aid measures

Skin contact: Rinse with running water and soap.
Seek medical advice.

Eye contact: Immediately flush eyes with soft jet of water or eye rinse solution for at least 5 minutes. If pains remains (intensive smarting, sensivity to light, visual disturbance) continue flushing and contact/seek doctor or hospital.

Inhalation: Move to fresh air. If symptoms persist, seek medical advice.

Ingestion: Rinse mouth, drink 1-2 glasses of water, do not induce vomiting, consult a doctor.

5. Fire fighting measures

Hazardous combustion products: Oxides of carbon.
Irritating organic vapours.

Extinguishing media: Foam, dry chemical or carbon dioxide.

Notice and measures for firing fighting: If mixed with air in sufficient amounts and proportions, organic dusts can form flammable or explosive dust/air mixtures.
Do not breathe combustion gases.
Wear self-contained breathing apparatus.

6. Accidental release measures

Emergency measures: Keep away from sources of ignition and naked flames.
Ensure adequate ventilation.
Do not let product enter drains.
Depending on workplace dust concentration, wear dust filter mask with particle filter P1, P2 or P3.
Avoid dust formation.

Clean-up methods: Remove all sources of ignition.
Ensure adequate ventilation.
Remove mechanically.
Sweep up spilled material. Avoid creating dust.

7. Handling and storage

Notice for handling: Avoid naked flames, sparking and sources of ignition.
Avoid dust development and deposition - dust explosion risk. Take precautionary measures against static discharges.
Use only with adequate ventilation.
Avoid contact with eyes, skin and clothing.
Wash thoroughly after handling.

Notice for storage: Store in a cool, dry place.
Keep away from heat and direct sunlight.

8. Exposure controls / personal protection

Hazardous components	GBZ 2.1-2007	ACGIH	NIOSH	OSHA
Silicon dioxide	5 mg/m3TWA	6 mg/m3 TWA		none
Carbon black	4 mg/m3TWA	3 mg/m3 TWA		none

Engineering controls:
Ensure adequate ventilation, especially in confined areas.
Extraction is necessary to remove fumes evolved during reflow.
Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction.

Respiratory protection:
Do not inhale dust.
In case of insufficient ventilation, wear suitable respiratory equipment.

Eye protection:
Protective goggles
Avoid eye contact.

Body protection:
Wear suitable protective clothing.
Protective clothing that covers arms and legs.

Hand protection:
Avoid skin-contact.
Wear refractive gloves while working with the hot melt.

Other protection:
The selection of PPE shall at least compliant with "Law of the People's Republic of China on Prevention and Control of Occupational Diseases" and "Code of practice for selection of personal protective equipments" (GB/T 11651-2008).

Pictograms for recommended PPE:

9. Physical and chemical properties

Physical state:	powder	Appearance:	black solid
pH:	Not applicable	Melting point:	Not available.
Boiling point:	Not applicable	Density:	1.8 - 2.1 g/cm3
Flash point:	solid	Ignition temperature:	Not available.
Solubility:	Insoluble	Viscosity:	Not available.

10. Stability and reactivity

Stability:
Stable under recommended storage conditions.

Conditions to avoid:
Danger of dust explosions.
Take measures to prevent the build-up of electrostatic charges.
Danger of decomposition if exposed to heat.

Incompatible products:
Reacts with strong oxidants.
Polymerization may occur at elevated temperature or in the presence of incompatible materials.

Decomposition products:
Hydrocarbons
Oxides of carbon.
Irritating organic fragments.

11. Toxicological information

General toxicological information:
No experimental toxicological data on the preparation as such is available.

Other remarks:
Not available.

Acute toxicity:

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method
Silicon dioxide 60676-86-0	LD50 LD50	> 5,000 mg/kg > 5,000 mg/kg	oral dermal		rat rabbit	OECD Guideline 401 (Acute Oral Toxicity)
Carbon black 1333-86-4	LD50	> 8,000 mg/kg	oral		rat	
3-Trimethoxysilylpropane-1-thiol 4420-74-0	LD50	850 mg/kg	oral		rat	Not specified

Skin corrosion/irritation:

Hazardous components CAS-No.	Result	Exposure time	Species	Method
Silicon dioxide 60676-86-0	not irritating		rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
Carbon black 1333-86-4	not irritating		rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)

Serious eye damage/irritation:

Hazardous components CAS-No.	Result	Exposure time	Species	Method
Silicon dioxide 60676-86-0	not irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
Carbon black 1333-86-4	not irritating		rabbit	

Germ cell mutagenicity:

Hazardous components CAS-No.	Result	Type of study / Route of administration	Metabolic activation / Exposure time	Species	Method
Silicon dioxide 60676-86-0	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		Ames Test

Repeated dose toxicity:

Hazardous components CAS-No.	Result	Route of application	Exposure time / Frequency of treatment	Species	Method
Silicon dioxide 60676-86-0	NOAEL=< 0.046 mg/l	inhalation	14 days6 hours/day, 5 days/week	rat	

12. Ecological information

General ecological information:
Do not empty into drains / surface water / ground water.

Ecotoxicity:
May cause long-term adverse effects in the aquatic environment.

Other adverse effects:
Not available.

Toxicity:

Hazardous components CAS-No.	Value type	Value	Acute Toxicity Study	Exposure time	Species	Method
Silicon dioxide 60676-86-0	LC50	> 10,000 mg/l	Fish	96 h	Brachydanio rerio (new name: Danio rerio)	OECD Guideline 203 (Fish, Acute Toxicity Test)
Silicon dioxide 60676-86-0	EC50	> 10,000 mg/l	Daphnia	24 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Silicon dioxide 60676-86-0	EC50	440 mg/l	Algae	72 h	Selenastrum capricornutum (new name: Pseudokirchnerella subcapitata)	ISO 8692 (Water Quality)
Silicon dioxide 60676-86-0	NOEC	60 mg/l	Algae	72 h	Selenastrum capricornutum (new name: Pseudokirchnerella subcapitata)	ISO 8692 (Water Quality)
Carbon black 1333-86-4	LC50	> 10,000 mg/l	Fish	96 h	Brachydanio rerio (new name: Danio rerio)	OECD Guideline 203 (Fish, Acute Toxicity Test)
Carbon black 1333-86-4	EC50	> 5,600 mg/l	Daphnia	24 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Carbon black 1333-86-4	EC50	> 10,000 mg/l	Algae	72 h	Scenedesmus subspicatus (new name: Desmodesmus subspicatus)	OECD Guideline 201 (Alga, Growth Inhibition Test)
Carbon black 1333-86-4	NOEC	10,000 mg/l	Algae	72 h	Scenedesmus subspicatus (new name: Desmodesmus subspicatus)	OECD Guideline 201 (Alga, Growth Inhibition Test)
Carbon black 1333-86-4	EC50	37.1 mg/l	Algae			OECD Guideline 201 (Alga, Growth Inhibition Test)
3-Trimethoxysilylpropane-1-thiol 4420-74-0	LC50	439 mg/l	Fish	96 h	Brachydanio rerio (new name: Danio rerio)	OECD Guideline 203 (Fish, Acute Toxicity Test)
3-Trimethoxysilylpropane-1-thiol 4420-74-0	EC50	6.7 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
3-Trimethoxysilylpropane-1-thiol 4420-74-0	NOEC	40 mg/l	Algae	72 h	Scenedesmus subspicatus (new name: Desmodesmus subspicatus)	OECD Guideline 201 (Alga, Growth Inhibition Test)
3-Trimethoxysilylpropane-1-thiol 4420-74-0	EC50	267 mg/l	Algae	72 h	Scenedesmus subspicatus (new name: Desmodesmus subspicatus)	OECD Guideline 201 (Alga, Growth Inhibition Test)

Persistence and degradability:

Hazardous components CAS-No.	Result	Route of application	Degradability	Method
3-Trimethoxysilylpropane-1-thiol 4420-74-0		aerobic	51 %	OECD Guideline 301 A (new version) (Ready Biodegradability: DOC Die Away Test)

13. Disposal considerations

Product disposal: Not list in National Hazardous Waste Catalogue, dispose of as normal chemical waste. Dispose of in accordance with local and national regulations.
Waste incineration with the approval of the responsible local authority.

Disposal of uncleaned packages: After use, tubes, cartons and bottles containing residual product should be disposed of as chemically contaminated waste in an authorised legal land fill site or incinerated.

14. Transport information

General information:
Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR.

Notice For Transportation: Transport according to local and national regulations. Ensure containers will not leak, collapse, or being damaged when transported. DO NOT transport with incompatible materials. Transportation vehicle should be equipped with right fire-fighting equipment in case of emergency. Avoid solarization, drenched and high temperature when transported.

15. Regulatory information

The following laws and regulations lay down provisions in terms of chemicals safety use, storage, transportation, loading/ unloading, classification as well as symbol.

Law of the People's Republic of China on Work Safety
Law of the People's Republic of China on the Prevention and Treatment of Occupational Diseases
Law of the People's Republic of China on environmental protection
Regulation on the Safety Management of Hazardous Chemicals
Regulations on License to Work Safety

China Inventory of Existing Chemicals: All components are listed or are exempt from Inventory of Existing Chemical Substances in China.

16. Other information

Issue department: SHE Department

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Others: **The full text of all abbreviations indicated by codes in this safety data sheet section 3 are as follows:**

H302 Harmful if swallowed.
H317 May cause an allergic skin reaction.
H411 Toxic to aquatic life with long lasting effects.