# Hysol Huawei Electronics Co.,Ltd.

## **Safety Data Sheet** according to GB/T 16483-2008



HYSOL GR 360A-ST

SDS No. : 1429571
V002.1
Revision: 30th,Mar.,2022

## 1. Identification of the substance/preparation and of the company/undertaking

**Product name:** HYSOL GR 360A-ST

**Intended use:** Epoxy Molding Compound

**Manufacturer:**

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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):**

| Hazard Class | Hazard Category | Route of Exposure |
|---|---|---|
| Skin sensitizer | Category 1A | Skin contact |

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

**Hazard pictogram:**

**Signal word:** Warning

**Hazard statement:** H317 May cause an allergic skin reaction.

**Prevention:**
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves/protective clothing/eye protection/face protection.

**Response:**
P302+P352 IF ON SKIN: Wash with plenty of water.
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
P370+P378 In case of fire: Use CO2, dry chemical, or foam for extinction.

**Storage:**
P403+P235 Store in a well-ventilated place. Keep cool.
P410 Protect from sunlight.

**Disposal:** P501 Dispose of contents/container according to SDS section 13.

## 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<br>7631-86-9 | 30- < 50 % | |
| Silica, vitreous,<br>60676-86-0 | 20- <30 % | |
| Formaldehyde, polymer with hloromethyl)oxirane and 2-methylphenol<br>29690-82-2 | 10-< 20% | |
| Phenol-formaldehyde polymer<br>9003-35-4 | 1- < 10 % | Acute toxicity 5; Oral<br>H303<br>Serious eye damage/eye irritation 2A<br>H319<br>Skin sensitizer 1<br>H317<br>Specific target organ toxicity - single exposure 3<br>H335 |
| Carbon black<br>1333-86-4 | 0.1- < 1 % | |
| 3-Trimethoxysilylpropane-1-thiol<br>4420-74-0 | 0.1- < 1 % | Acute toxicity 4; Oral<br>H302<br>Skin sensitizer 1<br>H317<br>Acute hazards to the aquatic environment 2<br>H401<br>Chronic hazards to the aquatic environment 2<br>H411 |

## 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 characteristics:** Non combustible - Danger of decomposition if exposed to heat.

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

**Extinguishing media:** Water spray (fog), 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.
Scrape up spilled material and place in a closed container for disposal.

## 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.
Avoid dust formation.
Use only with adequate ventilation.
Avoid contact with eyes, skin and clothing.
Wash thoroughly after handling.

**Notice for storage:**
Store in a cool, dry, well-ventilated area.
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/m3PC-TWA | none | | none |
| Carbon black | 4 mg/m3PC-TWA | 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.

**Pictograms for recommended PPE:**

## 9. Physical and chemical properties

| | | | |
|---|---|---|---|
| Physical state: | solid | Appearance: | Black Solid |
| **pH:** | Not applicable | Melting point: | Not applicable |
| Boiling point: | Not applicable | Density: | 1.8 - 2.0 g/cm3 |
| Vapor density: | Not applicable | Vapor pressure: | Not applicable |
| Flash point: | Product is a solid. | Ignition temperature: | Not applicable |
| Solubility in water | Insoluble | Viscosity: | Not applicable |

## 10. Stability and reactivity

**Conditions to avoid:** Stable under normal conditions of storage and use.
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.

**Hazardous polymerization:** Will not occur.

## 11. Toxicological information

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

**Acute toxicity:**

| Hazardous components CAS-No. | Value type | Value | Route of application | Exposure time | Species | Method |
|---|---|---|---|---|---|---|
| Silicon dioxide | LD50 | > 5,000 mg/kg | oral | | rat | OECD Guideline 401 (Acute |
| 7631-86-9 | LD50 | > 5,000 mg/kg | dermal | | rabbit | Oral Toxicity) |
| Phenol-formaldehyde polymer | LD50 | 4,100 mg/kg | oral | | rat | |
| 9003-35-4 | | | | | | |
| Carbon black | LD50 | > 8,000 mg/kg | oral | | rat | OECD Guideline 401 (Acute |
| 1333-86-4 | | | | | | Oral Toxicity) |
| 3-Trimethoxysilylpropane-1-thiol | LD50 | 850 mg/kg | oral | | rat | Not specified |
| 4420-74-0 | | | | | | |

**Skin corrosion/irritation:**

| Hazardous components CAS-No. | Result | Exposure time | Species | Method |
|---|---|---|---|---|
| Silicon dioxide 7631-86-9 | not irritating | | rabbit | OECD Guideline 404 (Acute Dermal Irritation / Corrosion) |
| Carbon black 1333-86-4 | not irritating | 24 h | rabbit | OECD Guideline 404 (Acute Dermal Irritation / Corrosion) |

**Serious eye damage/irritation:**

| Hazardous components CAS-No. | Result | Exposure time | Species | Method |
|---|---|---|---|---|
| Silicon dioxide 7631-86-9 | not irritating | | rabbit | OECD Guideline 405 (Acute Eye Irritation / Corrosion) |
| Carbon black 1333-86-4 | not irritating | | rabbit | OECD Guideline 405 (Acute Eye Irritation / Corrosion) |

**Respiratory or skin sensitization:**

| Hazardous components CAS-No. | Result | Test type | Species | Method |
|---|---|---|---|---|
| Carbon black 1333-86-4 | not sensitising | Buehler test | guinea pig | OECD Guideline 406 (Skin Sensitisation) |
| Carbon black 1333-86-4 | not sensitising | Respiratory sensitisation | mouse | |

**Germ cell mutagenicity:**

| Hazardous components CAS-No. | Result | Type of study / Route of administration | Metabolic activation / Exposure time | Species | Method |
|---|---|---|---|---|---|
| Silicon dioxide 7631-86-9 | negative | bacterial reverse mutation assay (e.g Ames test) | with and without | | Ames Test |
| Carbon black 1333-86-4 | negative<br>negative<br>negative | bacterial reverse mutation assay (e.g Ames test)<br>sister chromatid exchange assay in mammalian cells<br>mammalian cell gene mutation assay | with and without<br>with and without<br>with and without | | OECD Guideline 471 (Bacterial Reverse Mutation Assay)<br>OECD Guideline 479 (Genetic Toxicology: In Vitro Sister Chromatid Exchange Assay in Mammalian Cells)<br>OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test) |
| Carbon black 1333-86-4 | negative | oral: feed | | Drosophila melanogaster | OECD Guideline 477 (Genetic Toxicology: Sex-linked Recessive Lethal Test in Drosophila melanogaster) |

**Repeated dose toxicity:**

| Hazardous components CAS-No. | Result | Route of application | Exposure time / Frequency of treatment | Species | Method |
|---|---|---|---|---|---|
| Silicon dioxide 7631-86-9 | NOAEL=< 0.046 mg/l | inhalation | 14 days6 hours/day, 5 days/week | rat | |
| Carbon black 1333-86-4 | NOAEL=>= 52 mg/kg | oral: feed | 2 ydaily | rat | |

## 12. Ecological information

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

**Ecotoxicity:**
Harmful to aquatic organisms.

**Toxicity:**

| Hazardous components CAS-No. | Value type | Value | Acute Toxicity Study | Exposure time | Species | Method |
|---|---|---|---|---|---|---|
| Silicon dioxide 7631-86-9 | LC50 | > 10,000 mg/l | Fish | 96 h | Brachydanio rerio (new name: Danio rerio) | OECD Guideline 203 (Fish, Acute Toxicity Test) |
| Silicon dioxide 7631-86-9 | EC50 | > 10,000 mg/l | Daphnia | 24 h | Daphnia magna | OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test) |
| Silicon dioxide 7631-86-9 | EC50 | 440 mg/l | Algae | 72 h | Selenastrum capricornutum (new name: Pseudokirchnerella subcapitata) | ISO 8692 (Water Quality) |
| Silicon dioxide 7631-86-9 | NOEC | 60 mg/l | Algae | 72 h | Selenastrum capricornutum (new name: Pseudokirchnerella subcapitata) | ISO 8692 (Water Quality) |
| Silicon dioxide 7631-86-9 | EC0 | 10,000 mg/l | Bacteria | 30 min | | |
| 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 | EC0 | >= 800 mg/l | Bacteria | 3 h | | OECD Guideline 209 (Activated Sludge, Respiration 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 | EC50 | 267 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 | 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 | EC 50 | 440 mg/l | Bacteria | 3 h | | OECD Guideline 209 (Activated Sludge, Respiration 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.
H303 May be harmful if swallowed.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.
H401 Toxic to aquatic life.
H411 Toxic to aquatic life with long lasting effects.