



Safety Data Sheet according to (EC) No 1907/2006

Page 1 of 10

HYSOL MG 21F-02

SDS No. : 1048227
V001.0

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SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

HYSOL MG 21F-02

Contains:

Phenol-formaldehyde polymer

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use:

Molding Compound

1.3. Details of the supplier of the safety data sheet

Manufacturer

Hysol Huawei Electronic Co., Ltd.

Songtiao Industrial Zone, Lianyungang, Jiangsu, China,

222000

T: +86 518-85155187

F: +86 518-85155060

1.4. Emergency telephone number

24 Hours Emergency Tel: +86 18115208319

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (CLP):

Skin sensitizer

Category 1

H317 May cause an allergic skin reaction.

Chronic hazards to the aquatic environment

Category 3

H412 Harmful to aquatic life with long lasting effects.

2.2. Label elements

Label elements (CLP):

Hazard pictogram:



Signal word:

Warning

Hazard statement:	H317 May cause an allergic skin reaction. H412 Harmful to aquatic life with long lasting effects.
Precautionary statement:	P273 Avoid release to the environment.
Prevention	P280 Wear protective gloves.
Precautionary statement:	P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
Response	

2.3. Other hazards

None if used properly.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

General chemical description:

Epoxy resin

Base substances of preparation:

resins
organic amine
Filler

Declaration of the ingredients according to CLP (EC) No 1272/2008:

Hazardous components CAS-No.	EC Number REACH-Reg No.	content	Classification
Silica 7631-86-9	231-545-4	70- < 90%	Not classified
Formaldehyde, polymer with (chloromethyl)oxirane and 2-methylphenol 29690-82-2	-	10- < 20 %	Not classified
Phenol-formaldehyde polymer 9003-35-4	500-005-2	>= 5- < 10 %	Eye Irrit. 2 H319 STOT SE 3 H335 Skin Sens. 1 H317
Tetrabromobisphenol A 79-94-7	201-236-9	>= 0,25- < 2,5 %	Aquatic Acute 1 H400 Aquatic Chronic 1 H410
Antimony trioxide 1309-64-4	215-175-0	>= 0,1- < 1 %	Carc. 2 H351

For full text of the H - statements and other abbreviations see section 16 "Other information".

Substances without classification may have community workplace exposure limits available.

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation:

Move to fresh air, consult doctor if complaint persists.

Skin contact:

Rinse with running water and soap.

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.

Ingestion:

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

4.2. Most important symptoms and effects, both acute and delayed

SKIN: Rash, Urticaria.

Prolonged or repeated contact may cause skin irritation.

Prolonged or repeated contact may cause eye irritation.

4.3. Indication of any immediate medical attention and special treatment needed

See section: Description of first aid measures

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

carbon dioxide, foam, powder, water spray jet, fine water spray

Extinguishing media which must not be used for safety reasons:

High pressure waterjet

5.2. Special hazards arising from the substance or mixture

Danger of decomposition if exposed to heat.

See section 10.

5.3. Advice for firefighters

Do not breathe combustion gases.

Wear self-contained breathing apparatus.

Additional information:

Avoid open flames and sources of ignition.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Avoid dust formation.

Depending on workplace dust concentration, wear dust filter mask with particle filter P1, P2 or P3.

Wear protective equipment.

Ensure adequate ventilation.

6.2. Environmental precautions

Do not allow to enter the ground / soil.

6.3. Methods and material for containment and cleaning up

Remove all sources of ignition.

Remove mechanically.

Use appropriate industrial vacuum cleaners or central vacuum systems for dust removal.

Ensure adequate ventilation.

Dispose of contaminated material as waste according to Section 13.

6.4. Reference to other sections

See advice in section 8

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid naked flames, sparking and sources of ignition.

Extract when the product is heated.

Avoid dust development and deposition - dust explosion risk. Take precautionary measures against static discharges.

Hygiene measures:

Wash hands before work breaks and after finishing work.

Do not eat, drink or smoke while working.

7.2. Conditions for safe storage, including any incompatibilities

Store in sealed original container.

Store in a cool, dry place.

Keep away from heat and direct sunlight.

7.3. Specific end use(s)

Molding Compound

SECTION 8: Exposure controls/personal protection**8.1. Control parameters****Occupational Exposure Limits**

Diantimony trioxide	Limit value - Eight hours	Limit value - Eight hours	Limit value - Short term	Limit value - Short term
1309-64-4	ppm	mg/m ³	ppm	mg/m ³
Austria	Not available	0,1 inhalable aerosol	Not available	0,4 inhalable aerosol
Finland	Not available	0,5	Not available	Not available
Hungary	Not available	0,1	Not available	0,4
Latvia	Not available	1	Not available	Not available
Sweden	Not available	0,25 (Inhalable dust)	Not available	Not available
Switzerland	Not available	0,1 inhalable aerosol	Not available	Not available
United Kingdom	Not available	0,5	Not available	Not available

Silica	Limit value - Eight hours	Limit value - Eight hours	Limit value - Short term	Limit value - Short term
7631-86-9	ppm	mg/m ³	ppm	mg/m ³
Austria	Not available	4 inhalable aerosol	Not available	Not available
Belgium	Not available	10	Not available	Not available
Denmark	Not available	2 inhalable aerosol	Not available	4 inhalable aerosol
Finland	Not available	5	Not available	Not available
Germany (AGS)	Not available	4 inhalable aerosol	Not available	Not available
Germany (DFG)	Not available	4 inhalable aerosol	Not available	Not available
Ireland	Not available	6 Inhalable fraction	Not available	Not available
Ireland	Not available	2,4 Respirible fraction	Not available	Not available
Latvia	Not available	1	Not available	Not available
Switzerland	Not available	4 inhalable aerosol	Not available	Not available
USA - OSHA	Not available	80/ % silica total dust	Not available	Not available
United Kingdom	Not available	6 inhalable aerosol	Not available	Not available
United Kingdom	Not available	2,4 respirable aerosol	Not available	Not available

Biological Exposure Indices:

None

8.2. Exposure controls:

Engineering controls:

In use may form flammable/explosive dust-air mixtures.
Thorough dedusting.
Avoid naked flames, sparking and sources of ignition.
Ensure good ventilation/suction at the workplace.
No further information, see section 7.

Respiratory protection:

Do not inhale dust.

In case of insufficient ventilation, wear suitable respiratory equipment.

Depending on workplace dust concentration, wear dust filter mask with particle filter P1, P2 or P3.

Ensure adequate ventilation.

Hand protection:

Chemical-resistant protective gloves (EN 374).

Suitable materials for short-term contact or splashes (recommended: at least protection index 2, corresponding to > 30 minutes permeation time as per EN 374):

nitrile rubber (NBR; ≥ 0.4 mm thickness)

Suitable materials for longer, direct contact (recommended: protection index 6, corresponding to > 480 minutes permeation time as per EN 374):

nitrile rubber (NBR; ≥ 0.4 mm thickness)

This information is based on literature references and on information provided by glove manufacturers, or is derived by analogy with similar substances. Please note that in practice the working life of chemical-resistant protective gloves may be considerably shorter than the permeation time determined in accordance with EN 374 as a result of the many influencing factors (e.g. temperature). If signs of wear and tear are noticed then the gloves should be replaced.

Eye protection:
Protective goggles

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

Advices to personal protection equipment:
Do not breathe dust and vapors.
Avoid eye contact.
Wash off any dirt that gets onto the skin with lots of soap and water, skin care.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	solid material granules, or, tablet black
Odor	little intrinsic odour
Odour threshold	No data available / Not applicable
pH	No data available / Not applicable
Initial boiling point	Polymerization may occur at elevated temperature.
Flash point	Not applicable
Decomposition temperature	No data available / Not applicable
Vapour pressure	No data available / Not applicable
Density (20 °C (68 °F))	1,8 - 2,0 g/cm ³
Bulk density	No data available / Not applicable
Viscosity	No data available / Not applicable
Viscosity (kinematic)	No data available / Not applicable
Explosive properties	No data available / Not applicable
Solubility (qualitative) (20 °C (68 °F); Solvent: Water)	Not miscible or difficult to mix
Solubility (qualitative) (20 °C (68 °F); Solvent: ketones)	Partially miscible
Solidification temperature	No data available / Not applicable
Melting point	No data available / Not applicable
Flammability	No data available / Not applicable
Auto-ignition temperature	No data available / Not applicable
Explosive limits	No data available / Not applicable
Partition coefficient: n-octanol/water	No data available / Not applicable
Evaporation rate	No data available / Not applicable
Vapor density	No data available / Not applicable
Oxidising properties	No data available / Not applicable

9.2. Other information

No data available / Not applicable

SECTION 10: Stability and reactivity

10.1. Reactivity

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

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

See section reactivity

10.4. Conditions to avoid

Danger of dust explosions.
Take measures to prevent the build-up of electrostatic charges.
See "Handling and Storage" (Section 7) and "Incompatibility" (Section 10).
No decomposition if stored and applied as directed.

10.5. Incompatible materials

See section reactivity

10.6. Hazardous decomposition products

Irritating vapors.
Hydrocarbons
Oxides of carbon.
Bromine compounds
Oxides of silicon.
May produce fumes when heated to decomposition. Fumes may contain carbon monoxide and other toxic fumes.
See section 5.

SECTION 11: Toxicological information**11.1. Information on toxicological effects****General toxicological information:**

The mixture is classified based on the available hazard information for the ingredients as defined in the classification criteria for mixtures for each hazard class or differentiation in Annex I to Regulation 1272/2008/EC. Relevant available health/ecological information for the substances listed under Section 3 is provided in the following.

Skin irritation:

Prolonged or repeated contact may cause skin irritation.

Eye irritation:

Prolonged or repeated contact may cause eye irritation.

Sensitizing:

May cause an allergic skin reaction.

Acute oral toxicity:

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method
Phenol-formaldehyde polymer 9003-35-4	LD50	4.100 mg/kg	oral		rat	
Tetrabromobisphenol A 79-94-7	LD50	> 5.000 mg/kg	oral		rat	
Antimony trioxide 1309-64-4	LD50	> 20.000 mg/kg	oral		rat	

Acute inhalative toxicity:

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method
Tetrabromobisphenol A 79-94-7	Acute toxicity estimate (ATE)	5,1 mg/l	Aerosol			Expert judgement
Tetrabromobisphenol A 79-94-7	LC50	> 0,5 mg/l		8 h		

Acute dermal toxicity:

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method
Tetrabromobisphenol A 79-94-7	LD50	> 2.000 mg/kg	dermal		rabbit	

Skin corrosion/irritation:

Hazardous components CAS-No.	Result	Exposure time	Species	Method
Tetrabromobisphenol A 79-94-7	not irritating		rabbit	

Serious eye damage/irritation:

Hazardous components CAS-No.	Result	Exposure time	Species	Method
Tetrabromobisphenol A 79-94-7	not irritating		rabbit	

Respiratory or skin sensitization:

Hazardous components CAS-No.	Result	Test type	Species	Method
Tetrabromobisphenol A 79-94-7	not sensitising		guinea pig	

Germ cell mutagenicity:

Hazardous components CAS-No.	Result	Type of study / Route of administration	Metabolic activation / Exposure time	Species	Method
Tetrabromobisphenol A 79-94-7	negative	bacterial reverse mutation assay (e.g. Ames test)	with and without		

SECTION 12: Ecological information**General ecological information:**

The mixture is classified based on the available hazard information for the ingredients as defined in the classification criteria for mixtures for each hazard class or differentiation in Annex I to Regulation 1272/2008/EC. Relevant available health/ecological information for the substances listed under Section 3 is provided in the following.

12.1. Toxicity**Ecotoxicity:**

Harmful to aquatic life with long lasting effects.
Do not empty into drains / surface water / ground water.

Hazardous components CAS-No.	Value type	Value	Acute Toxicity Study	Exposure time	Species	Method
Tetrabromobisphenol A 79-94-7	LC50	8,2 mg/l	Fish	48 h	Oryzias latipes	OECD Guideline 203 (Fish, Acute Toxicity Test)
Tetrabromobisphenol A 79-94-7	EC50	0,96 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Tetrabromobisphenol A 79-94-7	EC50	> 0,09 - 0,89 mg/l	Algae	72 h	Skeletonema costatum	OECD Guideline 201 (Alga, Growth Inhibition Test)
Antimony trioxide 1309-64-4	LC50	> 1.000 mg/l	Fish	96 h	Brachydanio rerio (new name: Danio rerio)	OECD Guideline 203 (Fish, Acute Toxicity Test)
Antimony trioxide 1309-64-4	EC50	> 1.000 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Antimony trioxide 1309-64-4	EC50	67 mg/l	Algae	72 h	Selenastrum capricornutum (new name: Pseudokirchnerella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)

12.2. Persistence and degradability**Persistence and Biodegradability:**

The product is not biodegradable.

Hazardous components CAS-No.	Result	Route of application	Degradability	Method
Tetrabromobisphenol A 79-94-7	under test conditions no biodegradation observ	aerobic	0 %	OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))

12.3. Bioaccumulative potential / 12.4. Mobility in soil**Mobility:**

Cured adhesives are immobile.

Bioaccumulative potential:

No data available.

Hazardous components CAS-No.	LogKow	Bioconcentration factor (BCF)	Exposure time	Species	Temperature	Method
Tetrabromobisphenol A 79-94-7	4,54					

12.5. Results of PBT and vPvB assessment

Hazardous components CAS-No.	PBT/vPvB
Antimony trioxide 1309-64-4	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.

12.6. Other adverse effects

No data available.

SECTION 13: Disposal considerations**13.1. Waste treatment methods****Product disposal:**

Dispose of in accordance with local and national regulations.

Disposal of uncleaned packages:

Use packages for recycling only when totally empty.

Packaging that cannot be cleaned are to be disposed of in the same manner as the product.

Waste code

08 04 09 waste adhesives and sealants containing organic solvents and other dangerous substances

The valid EWC waste code numbers are source-related. The manufacturer is therefore unable to specify EWC waste codes for the articles or products used in the various sectors. The EWC codes listed are intended as a recommendation for users. We will be happy to advise you.

SECTION 14: Transport information

14.1. UN number

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

14.2. UN proper shipping name

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

14.3. Transport hazard class(es)

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

14.4. Packaging group

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

14.5. Environmental hazards

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

14.6. Special precautions for user

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

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

not applicable

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

VOC content < 3 %
(1999/13/EC)

15.2. Chemical safety assessment

A chemical safety assessment has not been carried out.

SECTION 16: Other information

The labelling of the product is indicated in Section 2. The full text of all abbreviations indicated by codes in this safety data sheet are as follows:

H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.
H351 Suspected of causing cancer.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.

Further information:

This information is based on our current level of knowledge and relates to the product in the state in which it is delivered. It is intended to describe our products from the point of view of safety requirements and is not intended to guarantee any particular properties.