

SAFETY DATA SHEET

1. Identification

Product identifier Ceramic Heat Spreader

Other means of identification

Product code XL-25

Recommended use Ceramic Heat Spreader

Manufacturer/Importer/Supplier/Distributor information

Manufacturer/Supplier T-GLOBAL TECHNOLOGY CO., LTD

Address No.33, Ln. 50, Daren Rd., Taoyuan City, Taoyuan County 330,

Taiwan

Emergency telephone number +886-3-3618899

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Revision date -

2. Hazard(s) identification

Emergency overview Low hazard under normal conditions.

Physical hazards Not classified.

Health hazards Not classified.

OSHA defined hazards Not classified.

GHS-classification Not classified.

Label elements

Hazard symbol None.

Signal word Not applicable.

Hazard statement Not applicable.

Precautionary statement

Prevention Observe good industrial hygiene practices.

Response Wash thoroughly after handling.

Storage Store away from incompatible materials.

Disposal Dispose of waste and residues in accordance with

local authority requirements

Hazard(s) not otherwise classified (HNOC)

Supplemental information This product is not hazardous according to

OSHA 29 CFR 1910.1200 requirements, therefore a hazard label does not apply.



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3. Composition/information on ingredients Substance/mixture Mixture

Chemical name	CAS Number	Concentration (%)
Sic	409-21-2	90
Al_2O_3	1344-28-1	3
SiO ₂	7631-86-9	2
Binding agents	N/A	5

4. First-aid measures

Inhalation Move to fresh air. Get medical attention if symptoms

occur.

Skin contact Wash skin with soap and water. Get medical attention if

irritation persists after washing.

Eye contact Flush thoroughly with water. If irritation occurs, get

medical assistance.

Ingestion Rinse mouth thoroughly. Get medical attention if any

discomfort occurs.

Most important symptoms/effects, acute and delayed

Under normal conditions of intended use, this material

does not pose a risk to health

Indication of immediate medical attention and special treatment needed

Treat symptomatically.

General information Get medical attention if any discomfort develops

5. Fire-fighting measures

Suitable extinguishing media Use fire-extinguishing media appropriate for surrounding materials.

Unsuitable extinguishing media None known.

Specific hazards arising from the chemical None

Special protective equipment and precautions for firefighters

Self-contained breathing apparatus and full protective clothing must be worn in case of fire. Selection of respiratory protection for firefighting: follow the general fire precautions indicated in the workplace.

Fire fighting equipment/instructions Move containers from fire area if



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you can do so without risk.

General fire hazards This product is not flammable.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Avoid contact with skin and eyes. For personal protection, see section 8 of the SDS.

Methods and materials for containment and cleaning up

Sweep up or gather material and place in appropriate container for disposal.

For waste disposal, see section 13 of the SDS.

Environmental precautions Environmental Manager must be informed of all major spillages.

7. Handling and storage

Precautions for safe handling

Provide adequate ventilation. Avoid inhalation of dust and contact with skin and eyes. Observe good industrial hygiene practices. Wear appropriate personal protective equipment (See Section 8).

Conditions for safe storage, including any incompatibilities

Store in closed original container in a dry place. Store away from incompatible materials.

8. Exposure controls/personal protection

Occupational exposure limits No occupational exposure limits noted

for the ingredient(s).

Biological limit values No biological exposure limits noted for the

ingredient(s).

Exposure guidelines Follow standard monitoring procedures.

Appropriate engineering controls Use process enclosures, local

exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.

Individual protection measures, such as personal protective equipment

Eye/face protection Risk of contact: Wear approved safety

goggles.

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Skin protection

Hand protection Use suitable protective gloves if risk of skin

contact. Suitable gloves can be

recommended by the glove supplier.

Other If prolonged or repeated contact is likely,

chemical resistant clothing is

recommended.

Respiratory protection In case of inadequate ventilation, use

respiratory protection.

Thermal hazards Wear appropriate thermal protective

clothing, when necessary.

General hygiene considerations

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Discard contaminated clothing and footwear that cannot be cleaned.

9. Physical and chemical properties

Appearance

Physical stateSolidFormSolidColorGray

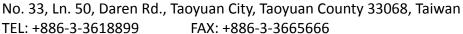
Odor Not relevant. Odor threshold Not relevant. Not relevant. pН Melting point/freezing point Not relevant. Initial boiling point and boiling range Not relevant. Flash point Not relevant. Not relevant. **Evaporation rate** Flammability (solid, gas) Not available.

Upper/lower flammability or explosive limits

Flammability limit - lower(%) Not relevant.

Flammability limit - upper(%) Not relevant.

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Explosive limit - lower (%) Not relevant.

Explosive limit - upper (%) Not relevant.

Vapor pressure Not relevant.

Vapor density Not relevant.

Solubility(ies)

Solubility (water) Insoluble (< 0.1%)

Solubility (solvents)

Partition coefficient

Auto-ignition temperature

Decomposition temperature

Viscosity

Not relevant.

Not relevant.

Not relevant.

Other information

Bulk density Not available.

Density 1.89

Explosive propertiesOxidizing properties
Not relevant.
VOC
Not relevant.

10. Stability and reactivity

Reactivity Chemical stability

The product is stable and non-reactive under normal conditions of use, storage and transport.

Chemical stability Material is stable under normal conditions.

Possibility of hazardous reactions

Hazardous polymerization does not occur.

Conditions to avoid

Contact with incompatible materials.

Incompatible materials Strong oxidizing agents.

Hazardous decomposition products None.

11. Information on likely routes of exposure

Inhalation Elevated temperatures or mechanical action may

form dust and fumes which may be irritating to the

mucous membranes and respiratory tract.

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Skin contact Prolonged skin contact may cause temporary

irritation.

Eye contact May cause eye irritation on direct contact.

Ingestion Ingestion may cause irritation and malaise.

Symptoms related to the physical, chemical and toxicological characteristics

Under normal conditions of intended use, this material does not pose a risk to health.

Skin corrosion/irritation

Prolonged skin contact may cause temporary irritation.

Serious eye damage/eye irritation

Direct contact with eyes may cause temporary irritation.

Respiratory or skin sensitization

Respiratory sensitization Not a respiratory sensitizer.

Skin sensitization This product is not expected to cause skin sensitization.

Germ cell mutagenicity

No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

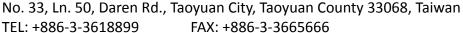
Carcinogenicity

Inhalation of carbon black dust may cause cancer, however due to the physical form of the product, inhalation of dust is not likely.

Reproductive toxicity This product is not expected to cause reproductive or developmental effects.

Specific target organ toxicity - single exposure Not classified.





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Specific target organ toxicity - repeated exposure Not classified.

Aspiration hazard Not an aspiration hazard.

Chronic effects None known.

Further information None known.

12. Ecological information

Ecotoxicity The product is not classified as

environmentally hazardous.

Persistence and degradability No data available.

Bioaccumulative potential No data available.

Mobility in soil The product is insoluble in water.

Other adverse effects None known.

13. Disposal considerations

Disposal instructions

Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazardous waste code

The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Waste from residues / unused products

Disposal recommendations are based on material as supplied. Disposal must be in accordance with current applicable laws and regulations, and material characteristics at time of disposal.

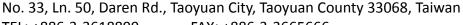
Contaminated packaging

Since emptied containers retain product residue, follow label warnings even after container is emptied.

14. Transport information

DOT Not regulated as dangerous goods.IATA Not regulated as dangerous goods.IMDG Not regulated as dangerous goods.

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

This substance/mixture is not intended to be transported in bulk.

15. Regulatory information

Trash Clearance Act., Air Pollution Protection Act., Enforcement Rules of the Labor Safety and Health Law, Prevention and Control of Water Pollution Act.

16. References

EPA: AQUIRE database

IARC Monographs. Overall Evaluation of Carcinogenicity

NLM: Hazardous Substances Data Base

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