

MATERIAL SAFETY DATA SHEET**SECTION 1 - Chemical product and company identification**

Product name: THERMO-EXPANDABLE MICROSPHERES

Product use: As filler for paints, ink, adhesives,coating, paper, plastics, rubber, textile,lightweight materials, etc.

Company identification:

Company name: QINGDAO SANHUAN COLORCHEM CO.,LTD

Company address: 17 FLOOR, YUHENG BUILDING,NO.170 XUZHOU NORTH ROAD,QINGDAO,China.

Emergency telephone: +86 532 8897 8177

SECTION 2 - Hazards identificationGHS Classification

Not a hazardous substance or mixture.

GHS-Labeling

Not a hazardous substance or mixture.

Other hazards which do not result in classification

Risk of dust explosion.

SECTION 3 - Composition/information on ingredients

Hazardous components

Ingredient Name	CAS NO.	GHS Classification	%
Hydrocarbon (Isopentane)	78-78-4	Flam. Liq. 1; H224 STOT SE 3; H336 Asp. Tox. 1; H304 Aquatic Acute 2; H401 Aquatic Chronic 2; H411	15-25

Non-hazardous substance

Chemical Name	CAS-No.	GHS Classification	%
Acrylonitrile copolymer	Trade secret	Not classified	75-85

SECTION 4 - First-aid measures

General information: The contaminated clothes need to be changed. In case of persisting discomfort please contact a physician.

Inhaled: Remove to fresh air. If breathing is difficult, get immediate medical attention.Skin:

Wash with soap and water. If irritation develops, get medical attention.

Eye: Flush with water for 15 minutes. If irritation develops, get immediate medical attention.

Swallowed: Do not induce vomiting. Get immediate medical attention.

SECTION 5 - Fire fighting measures**Flammable properties**

Flash point :	Not applicable
Upper explosion limit :	No data available

Lower explosion limit :	> 40.000 mg/m ³
Flammability (solid, gas) :	Not applicable
Suitable extinguishing media :	Water spray, Foam
Specific hazards during firefighting / Specific hazards arising from the chemical:	Do not allow run-off from fire fighting to enter drains or water courses. Risks of ignition followed by flame propagation or secondary explosions shall be prevented by avoiding accumulation of dust, e.g. on floors and ledges.
Special protective equipment for firefighters:	In the event of fire, wear self-contained breathing apparatus.
Further information :	Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

SECTION 6 - Accidental release measures

Personal protection	Wear protective gloves, safety goggles, and a respirator if necessary. Avoid breathing dust and minimize dust generation and accumulation.
Environmental measures	Waste water must be cleaned from rest products prior to emptying into the sewer system.
Cleaning procedures and absorption	Vacuum or sweep into a suitable container for reuse or appropriatedisposal.

SECTION 7 - Handling and storage

Handling	
Safety advice	Ground and bond containers when transferring product to prevent dust explosion. Avoid dust generation. Use in accordanc with good industrial workplace practices. Avoid unnecessary contact. Wash thoroughly after handling.
Technical protective measures	Local ventilation and airing guarantee,.

Storage

Requirements for storage in rooms and containers:

- store in a dry area away from flames, sparks, static build up, and excessive heat.
- Keep container closed when not in use to protect product quality.

Joint storage: Not with strong oxidizer stored together

Storage class: chemical storage. The product is stable, nonflammable. No specific incompatibility but, as with other organic materials, avoid contact with strong oxidizing agents.

SECTION 8 - Exposure controls/personal protection

Engineering controls: Local exhaust ventilation.

Protective gloves: Synthetic gloves if necessary to prevent excessive skin contact.

Respiratory protection: NIOSH / MSHA approved respirator if necessary.

Eye protection: chemical goggles if necessary to prevent contact and mechanical irritation.

Other protective equipment: Eye wash and emergency showers should be available.

SECTION 9 - Physical and chemical properties

Appearance: white powder

Type of odor: weak odor

Physical state: solid

PH: No data available

Specific gravity: No data available

Temperature start foaming: 130°C

Solubility in water: insoluble

Average particle size : 20-35 µm

Explosive properties : Dust may form explosive mixture in air.

SECTION 10 - Chemical stability and reactivity information

Conditions to avoid: Heat, flames and sparks. For safety, store below: 50°C

Chemical stability: Stable at room temperature and recommended operating, storage and disposal conditions.

Incompatibility with other materials: No specific incompatibility but, as with other organic materials, avoid contact with strong oxidizing agents and strong caustic materials.

Dangerous decomposition products: Thermal decomposition or combustion can release toxic gases or vapors.

Hazardous reactions : Dust may form explosive mixture in air. If the product is stored at temperatures above 60°C the release of blowing agent increases with a risk of explosive airmixtures.

SECTION 11 - Toxicological information

Product information:

Hazard Summary

Inhalation: Product dust may be irritating to the respiratory system.

Skin: Product dust may be irritating to skin.

Eyes: Product dust may be irritating to eyes.

Ingestion: Not irritating.

Acute oral toxicity: Acute toxicity estimate: > 5.000 mg/kg (Method: Expert judgement)

Toxicology data for the components:

Component: Isopentane

Acute inhalation toxicity: LC50 (Rat): > 4094 ppm Exposure time: 4 h

Target Organ Systemic Toxicant - Single exposure: May cause drowsiness or dizziness.

Aspiration toxicity: 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.

SECTION 12 - Ecological information

Toxicity to fish: LC50: > 5.000 mg/l Exposure time: 96 h

Bioaccumulation: Does not bioaccumulate

Mobility: immobile

Biodegradability: Not readily biodegradable.

Components:

Component: Isopentane

Additional ecological information: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Toxicity to fish: LC50: > 1 - 10 mg/l , Exposure time: 96 h

Biodegradability: Not readily biodegradable.

SECTION 13 - Disposal consideration

Waste disposal method: Dispose of unused product and empty containers in accordance with all applicable Federal, state and local environmental regulations. Product may be sent to an approved landfill or licensed storage, treatment, and disposal facility. Do not dump into sewers, on the ground, or in any body of water.

SECTION 14 - Transportation information

United Nations Dangerous Goods Number (UN No.) : None (although "polymer beads, expandable" is usually classified as dangerous goods, However, this product is judged as not belonging to dangerous goods, which is determined on the basis of SP382[special provisions of UN2211], that the concentration of flammable vapor <20% is below the explosion limit.

United Nations Transport name: None

United Nations Risk Classification: none

Packing type: None

Marine contaminants (yes/No) : No

Transportation precautions: Carry protective equipment and fire extinguishers. Check containers for leaks before shipping and loading; Ensure steady, safe loading to prevent containers from slipping, falling and damage. Proper measures should be taken to prevent container damage/ friction during transportation. Handle and open containers carefully. Prevent direct exposure in the sun. Prevent rain and high temperature. Avoid contact with water. Avoid moisture. Though it's not dangerous goods, should be comply with ICAO, IMDG, RID, ADR, ADN regulations during transportation.

SECTION 15 - Regulatory information

DSL - Listed;

TSCA(USA) - Listed;

EINECS(EUROPE) - Listed

IECSC - Listed.

Safety data sheet available for professional user on request.

SECTION 16 - Other information

NOTICE

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