

Safety Data Sheet

Issue date: 5/28/15

1. PRODUCT & COMPANY IDENTIFICATION

PRODUCT NAME: ISO 2000, ISO 3500, ISO 4000, ISO 6000

MANUFACTURER: ISO Technologies, Inc.

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2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Products are tan rigid thermoset foams. No significant immediate hazards for emergency response are known. Toxic fumes may be released in fire situations.

OSHA HAZARD COMMUNICATION STANDARD

These products are not a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard 29 CFR 1910.1200.

POTENTIAL HEALTH EFFECTS

- EYE: Solid or dust may cause irritation or corneal injury due to mechanical action.
- SKIN: Essentially nonirritating to skin. Mechanical injury only. Skin absorption unlikely due to physical properties.
- INGESTION: Ingestion is unlikely due to physical state. Physical injury only. May cause choking, blockage of the digestive tract if swallowed.
- INHALATION: Dust generated from fabrication operations may cause irritation of the upper respiratory tract and lungs. Concentrations of the blowing agents are anticipated to be incidental given proper handling, well below exposure guidelines.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Modified polyisocyanurate rigid cellular plastic	85-95%
Hydrocarbon blowing agent	2-7%
Tris (1-chloro-2-propyl) phosphate (CAS 13674-84-5)	3-8%

4. FIRST AID

EYE: Flush eyes with plenty of water; mechanical effects only.

SKIN: Wash off in flowing water or shower.

INGESTION: No adverse effects anticipated by this route of exposure.

INHALATION: Remove to fresh air if effects occur. Consult a physician.

5. FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA: Water fog, carbon dioxide, dry chemical.

FIRE FIGHTING INSTRUCTIONS: Keep people away, isolate fire area, and deny unnecessary entry. If material is molten, do not apply direct water stream. Use fine water

spray or foam. Cool surroundings with water to localize fire zone.

PROTECTIVE EQUIPMENT FOR FIRE FIGHTERS: Wear positive pressure self-contained breathing apparatus (SCBA) and full protective fire fighting equipment (includes fire fighting helmet, coat, pants, boots, and gloves). If protective equipment is not available or not used, fight fire from a protected location or safe distance.

FIRE AND EXPLOSION HAZARDS: Mechanical cutting, grinding, sawing, crushing can produce dusts while releasing blowing agents. All equipment needs to be properly vented. A flammable atmosphere can develop due to rapid bursting of cells within an inadequately vented area. This product contains a fire retardant to inhibit accidental ignition from small flame sources.

HAZARDOUS COMBUSTION PRODUCTS: Under fire conditions polymers decompose. In smoldering or flaming conditions, carbon dioxide, carbon monoxide, and carbon are generated. Evolution of small amounts of hydrogen halides occur when burned or heated over 482 F. The smoke may contain polymer fragments of varying compositions in addition to unidentified toxic and/or irritating compounds. Studies have shown that the products of combustion of this foam are not more acutely toxic than the products of combustion of common building materials.

OTHER FLAMMABILITY INFORMATION: Mechanical handling can cause formation of dusts. To reduce the potential for dust explosion, do not permit dust to accumulate. These thermoset foam products are combustible and should be protected from flame and other high heat sources. Dense smoke is produced when product burns. These products should be installed with code acceptable thermal barriers or used in approved alternate constructions.

6. ACCIDENTAL RELEASE MEASURES

CLEANUP: Sweep up, then place in properly labeled containers.

PERSONAL PRECAUTIONS: Use appropriate safety equipment. For additional information refer to Section 8.

ENVIRONMENTAL PRECAUTIONS: Prevent from entering into soil, ditches, sewers, waterways, and or ground water.

7. HANDLING AND STORAGE

HANDLING: This product is combustible and may constitute a fire hazard if improperly used or installed. Refer to Exposure Controls and Personal Protection, Section 8.

DUST: Mechanical handling equipment can cause formation of dusts. Maintain good housekeeping. Layers of flammable dusts should not be permitted to accumulate. Keep dust away from ignition sources. Provide adequate local ventilation and appropriate dust handling systems.

WARNING: Fabrication methods which involve cutting into this product will release blowing agent remaining in the cells. Provide adequate ventilation to assure that localized concentrations in the release areas are maintained below the exposure guideline.

STORAGE: Keep away from possible ignition sources. Keep away from open flames and spark producing equipment. Store in a cool, well ventilated area, away from sources of ignition. Proper ventilation is recommended to control dust formation.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: Good general ventilation should be sufficient for most conditions. Local exhaust ventilation may be necessary for some operations.

EXPOSURE LIMITS:

Isopentane 600 ppm

n-pentane 600 ppm

PERSONAL PROTECTIVE EQUIPMENT:

- EYE/FACE PROTECTION: Use safety glasses. If there is a potential for exposure to particles which could cause mechanical injury to the eye, wear chemical goggles.
- SKIN PROTECTION: No precautions other than clean body-covering clothing should be needed.
- RESPIRATORY PROTECTION: In dusty atmospheres, use an approved dust respirator.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Rigid cellular plastic.

ODOR: None.

VAPOR PRESSURE: Not applicable

VAPOR DENSITY: Not applicable

BOILING POINT: Not applicable

SOLUBILITY IN WATER: Not applicable

SPECIFIC GRAVITY: Not applicable

10. STABILITY AND REACTIVITY

CHEMICAL STABILITY: Stable at typical use temperatures.

CONDITIONS TO AVOID: Avoid constant temperatures above 300 F.

AUTOIGNITION TEMPERATURE: 850 F

11. TOXICOLOGICAL INFORMATION

Repeated exposures to dusts of these products are not expected to result in systemic toxicity or permanent lung injury, however excessive exposures may cause less severe respiratory effects.

12. ECOLOGICAL INFORMATION

CHEMICAL FATE

- MOVEMENT & PARTITIONING: No bioconcentration is expected because of the relatively high molecular weight (MW greater than 1000). In the terrestrial environment, material is expected to remain in the soil. In the aquatic environment, material is expected to float.
- DEGRADATION & PERSISTENCE: This water insoluble polymeric solid is expected to be inert in the environment. Surface photo-degradation is expected with exposure to sunlight. No appreciable biodegradation is expected.
- ECOTOXICITY: Not expected to be acutely toxic.

13. DISPOSAL CONSIDERATIONS

DISPOSAL: DO NOT DUMP INTO ANY SEWERS, ON THE GROUND, OR INTO ANY BODY OF WATER. All disposal methods must be in compliance with all Federal, State/Provincial and local laws and regulations. Regulations may vary in different locations. Waste characterizations and compliance with applicable laws are the responsibility solely of the waste generator. For unused & uncontaminated product, the preferred options include sending to a licensed, permitted: recycler, reclaimer, incinerator, or landfill.

14. TRANSPORT INFORMATION

DEPARTMENT OF TRANSPORTATION (D.O.T.): D.O.T. non bulk and bulk are not regulated.

15. REGULATORY INFORMATION

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16. OTHER INFORMATION

ISO Technologies has no control over the management practices or manufacturing processes of parties handling or using this material. The information presented here pertains only to the product as shipped.