



Polyethylene Visico™ FR4450

1. Identification of the substance/mixture and of the company/undertaking

Trade name: Visico FR4450
Material use: raw material for plastics industry
Supplier: Borealis
E-mail address: product.safety@borealisgroup.com

2. Hazards identification

Classification of the substance or mixture

Not a hazardous substance or mixture.

Label elements

Not a hazardous substance or mixture.

Other hazards

However, during crosslinking reaction in combination with catalyst masterbatch: methanol (Flam. Liq. 2; H225, Acute Tox. 3; H301, Acute Tox. 3; H311, Acute Tox. 3; H331, STOT SE 1; H370 - see chapter 16) may be released. Methanol: Toxic by inhalation, in contact with skin and if swallowed. Very serious irreversible effects through inhalation, in contact with skin and if swallowed. Warning! May form combustible dust concentrations in air (during processing). The product burns, but is not classified as flammable.

3. Composition/information on ingredients

The product is a polyethylene polymer.

Contains no substance classified as hazardous in concentrations, which should be taken into account according to US Hazard Communication Standard 2012 (29 CFR 1910.1200).

4. First aid measures

If inhaled: Move to fresh air in case of accidental inhalation of vapours or decomposition products.

In case of skin contact: If molten material comes in contact with the skin, cool with plenty of water. DO NOT remove solidified product, as removal could result in severe tissue damage. Obtain medical attention.

Most important symptoms and effects, both acute and delayed:

Inhalation of dust may irritate the respiratory tract. Prolonged inhalation of high doses of decomposition products may give headache or irritation of the respiratory tract.

Inhalation may provoke the following symptoms: Headache Irritation

Symptoms of poisoning (methanol): Daze Dizziness Nausea Abdominal pain Respiratory disorders

Symptoms of poisoning, prolonged exposure (methanol): Blindness

5. Firefighting measures

Suitable extinguishing media: Water in spread jet, dry chemicals, foam or carbon dioxide.

Specific hazards during firefighting: Principal toxicant in the smoke is carbon monoxide.

Avoid generating dust; fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.

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6. Accidental release measures

Vacuum or sweep up spill. All spill of material must be removed immediately to prevent slipping accidents. Prevent product from entering environment and drains.

Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration. Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air). Non-sparking tools should be used.

7. Handling and storage

Advice on safe handling: During processing and thermal treatment of the product, small amounts of volatile hydrocarbons may be released. Avoid inhalation of dust and decomposition fumes. Provide adequate ventilation. Local exhaust ventilation or additional personal protective equipment (PPE) may be necessary.

Advice on protection against fire and explosion: Minimize dust generation and accumulation. Dust from the product represents a risk for dust explosions when dispersed with air in a sufficient concentration and with the presence of an ignition source. All equipment shall be grounded. Routine housekeeping will also contribute in preventing risks of dust explosions.

Storage: Safety aspects do not require any special precautions in terms of storage.

8. Exposure controls/personal protection

It is recommended that all dust control equipment such as local exhaust ventilation and material transport systems involved in handling of this product contain explosion relief vents or an explosion suppression system or an oxygen deficient environment.

When using do not eat, drink or smoke. Wash hands before breaks and at the end of workday.

9. Physical and chemical properties

Appearance: pellets, opaque, white
Odour: odourless

Melting point/range: 100 - 140 °C
Density: 1.1 - 1.2 g/cm³

Ignition temperature: > 320 °C
Water solubility: insoluble in water

10. Stability and reactivity

The product is a stable thermoplastic, with no chemical reactivity. The intended crosslinking reaction occurs in combination with the catalyst masterbatch and moisture: at ambient conditions, in steam or hot water bath.



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11. Toxicological information

The product is not classified as hazardous to human health. However, during crosslinking reaction in combination with catalyst masterbatch: methanol may be released. Methanol: Toxic by inhalation, in contact with skin and if swallowed. Very serious irreversible effects through inhalation, in contact with skin and if swallowed. Inhalation of dust may irritate the respiratory tract. Prolonged inhalation of high doses of decomposition products may give headache or irritation of the respiratory tract.

12. Ecological information

The product is not considered hazardous for the environment. Not readily biodegradable. Does not accumulate in organisms. Avoid release to the environment.

13. Disposal considerations

Reuse or recycle if not contaminated. This substance, when discarded or disposed of is not specifically listed as a hazardous waste in Federal regulations. However, it could be hazardous if it is considered toxic, corrosive, ignitable or reactive according to Federal definitions (40 CFR 261). Additionally, it could be designated as hazardous waste if it is mixed with or comes in contact with a hazardous waste. If such contact or mixing may have occurred, check 40 CFR 261 to determine whether it is a hazardous waste. The transportation, storage, treatment and disposal of this waste material must be conducted in accordance with all applicable Federal, state and local regulations.

14. Transport information

The product is not regulated by ADR/RID, IMDG or IATA.

15. Regulatory information

Borealis certifies that all chemical substances in this shipment comply with all applicable rules or orders under TSCA and that Borealis is not offering a chemical substance for entry in violation of TSCA or any applicable rule or order under TSCA.

No data available

Refer to NFPA 654, Standard for the Prevention of Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids, for safe handling.

In accordance with Hazard Communication Standard 2012 (29 CFR 1910.1200), the product does not need to be classified nor labelled.

16. Other information

Issued in accordance with Hazard Communication Standard 2012.



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Visico FR4450

Full text of H-Statements referred to under sections 2 and 3.

H225: Highly flammable liquid and vapour.

H301: Toxic if swallowed.

H311: Toxic in contact with skin.

H331: Toxic if inhaled.

H370: Causes damage to organs.

Issuer: Borealis, Group Product Stewardship / Maarit Vakkala

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