

Safety Data Sheet

Neopor® F 5300 Plus

Revision date : 2015/04/16
Version: 3.0

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(30570155/SDS_GEN_CA/EN)

1. Identification

Product identifier used on the label

Neopor® F 5300 Plus

Recommended use of the chemical and restriction on use

Recommended use*: for industrial use only; Expanding-agent containing plastic for the production of foam plastics

* The "Recommended use" identified for this product is provided solely to comply with a Federal requirement and is not part of the seller's published specification. The terms of this Safety Data Sheet (SDS) do not create or infer any warranty, express or implied, including by incorporation into or reference in the seller's sales agreement.

Details of the supplier of the safety data sheet

Company:

BASF Canada Inc.
100 Milverton Drive
Mississauga, ON L5R 4H1, CANADA

Telephone: +1 289 360-1300

Emergency telephone number

CANUTEC (reverse charges): (613) 996-6666
BASF HOTLINE: (800) 454-COPE (2673)

Other means of identification

Synonyms: Polystyrene

2. Hazards Identification

According to Hazardous Products Regulations (HPR) (SOR/2015-17)

Classification of the product

No need for classification according to GHS criteria for this product.

Label elements

Hazard Statement:
EUH018 In use may form flammable/explosive vapour-air mixture.

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The product does not require a hazard warning label in accordance with GHS criteria.

Hazards not otherwise classified

May cause some eye irritation which should cease after removal of the product.

Labeling of special preparations (GHS):

Product releases a flammable hydrocarbon.

According to Controlled Products Regulations (CPR) (SOR/88-66)

Emergency overview

WARNING:

Releases flammable vapour.

FLAMMABLE.

PROLONGED OR REPEATED CONTACT MAY DRY SKIN AND CAUSE IRRITATION.

Prolonged or repeated contact may result in dermatitis.

MAY CAUSE EYE, SKIN AND RESPIRATORY TRACT IRRITATION.

Eye wash fountains and safety showers must be easily accessible.

Use with local exhaust ventilation.

Avoid contact with the skin, eyes and clothing.

3. Composition / Information on Ingredients

According to Hazardous Products Regulations (HPR) (SOR/2015-17)

| <u>CAS Number</u> | <u>Content (W/W)</u> | <u>Chemical name</u> |
|-------------------|----------------------|----------------------|
| 109-66-0 | >= 3.0 - < 7.0 % | Pentane |
| 78-78-4 | >= 0.3 - < 3.0 % | isopentane |

According to Controlled Products Regulations (CPR) (SOR/88-66)

| <u>CAS Number</u> | <u>Content (W/W)</u> | <u>Chemical name</u> |
|-------------------|----------------------|----------------------|
| 109-66-0 | >= 3.0 - <= 7.0 % | Pentane |
| 78-78-4 | >= 0.5 - <= 1.5 % | isopentane |

4. First-Aid Measures

Description of first aid measures

General advice:

If adverse health effects develop seek medical attention.

If inhaled:

Keep patient calm, remove to fresh air. If difficulties occur: Obtain medical attention.

If on skin:

Wash affected areas thoroughly with soap and water. If irritation develops, seek medical attention.

If in eyes:

In case of contact with the eyes, rinse immediately for at least 15 minutes with plenty of water. If irritation develops, seek medical attention.

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If swallowed:

No hazards anticipated. Rinse mouth and then drink plenty of water. If difficulties occur: Obtain medical attention.

Most important symptoms and effects, both acute and delayed

Symptoms: headache, dizziness, incoordination, dazed state, Eye irritation, skin irritation
Hazards: No hazards anticipated.

Indication of any immediate medical attention and special treatment needed

Note to physician

Treatment: Treat according to symptoms (decontamination, vital functions), no known specific antidote.

5. Fire-Fighting Measures

Extinguishing media

Suitable extinguishing media:
water spray, foam, dry powder, carbon dioxide

Unsuitable extinguishing media for safety reasons:
water jet

Special hazards arising from the substance or mixture

Hazards during fire-fighting:
carbon monoxide, carbon dioxide, Styrene, aliphatic hydrocarbons
The substances/groups of substances mentioned can be released in case of fire.

Advice for fire-fighters

Protective equipment for fire-fighting:
Wear self-contained breathing apparatus and chemical-protective clothing.

Further information:

Burns with dense emission of soot. Containers/tanks should be cooled with water spray. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations. Flammable concentrations of propellant may accumulate on storage in closed containers. Product will burn on contact with flame or exposure to high temperature.

6. Accidental release measures

Further accidental release measures:

High risk of slipping due to leakage/spillage of product. Shut off or stop source of leak.
Substance/product can form explosive mixture with air.

Personal precautions, protective equipment and emergency procedures

Sources of ignition should be kept well clear. Ensure adequate ventilation. Note that this gas is heavier than air and can spread along the ground in the direction of the wind. Beware of pits and confined spaces. Use antistatic tools. Vapours are heavy and collect in low areas. Avoid all sources of ignition: heat, sparks, open flame.

Environmental precautions

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Do not allow to enter drains or waterways. Discharge into the environment must be avoided.

Methods and material for containment and cleaning up

For small amounts: Sweep/shovel up. Pack in tightly closed containers for disposal.

For large amounts: Pick up with vacuum equipment approved for use in hazardous locations. Pack in tightly closed containers for disposal.

Ensure adequate ventilation. Dispose of absorbed material in accordance with regulations. Avoid raising dust.

7. Handling and Storage

Precautions for safe handling

Handle in accordance with good industrial hygiene and safety practice. Upon delivery, trailer and/or container should be opened and allowed to vent for a minimum of one (1) hour before unloading. The substance/product in bead or expanded form generates static charges during handling which are difficult to dissipate due to the insulating properties. Take precautionary measures against static discharges. Use antistatic tools. Provide good room ventilation even at ground level (vapours are heavier than air). Containers should be opened carefully in well-ventilated areas to avoid static discharge. Maintain air circulation and ventilation at a minimum rate of six air changes per hour to prevent the formation of flammable concentrations. Ensure adequate ventilation. The substance/product may be handled only by appropriately trained personnel.

Protection against fire and explosion:

The product is combustible. Vapours may form ignitable mixture with air. Keep away from heat. Prevent electrostatic charge - sources of ignition should be kept well clear - fire extinguishers should be kept handy. Avoid all sources of ignition: heat, sparks, open flame. Containers should be earthed during decanting operations. It is recommended that all conductive parts of the machinery are grounded. All parts of the plant and equipment should be electrically bonded together and grounded. Electrical continuity should be checked at regular intervals. Higher line velocity can increase the build-up of static electric charge. Avoid flammable gas mixtures. Ensure an efficient ventilation (at least one air change per hour). Vapours are heavier than air and may accumulate in low areas and travel a considerable distance up to the source of ignition. Because of danger of explosion, avoid vapours reaching the cellar, sewage water and pits. Empty containers may contain flammable residue.

Conditions for safe storage, including any incompatibilities

Segregate from strong oxidizing agents.

Further information on storage conditions: Protect against heat. Keep away from sources of ignition - No smoking. Keep only in the original container. Keep container tightly closed. Protect against moisture. Avoid direct sunlight. Protect containers from physical damage. The authority permits and storage regulations must be observed. Store protected against freezing. Keep tanks under inert gas. Air monitoring should be used to alert any build up of explosive mixtures. Ventilate freight container with open door for 30 minutes before unloading.

Storage stability:

Keep container tightly closed and dry.

Keep only in the original container in a cool, dry, well-ventilated place away from ignition sources, heat or flame.

8. Exposure Controls/Personal Protection

Components with occupational exposure limits

isopentane

ACGIH TLV TWA value 600 ppm ; TWA value 1,000 ppm ;

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| | | |
|----------|-----------|--|
| Pentane | OSHA PEL | PEL 1,000 ppm 2,950 mg/m ³ ; STEL value 750 ppm 2,250 mg/m ³ ; TWA value 600 ppm 1,800 mg/m ³ ; |
| | ACGIH TLV | TWA value 600 ppm ; TWA value 1,000 ppm ; |
| Graphite | OSHA PEL | TWA value 15 millions of particles per cubic foot of air ; |
| | ACGIH TLV | TWA value 2 mg/m ³ Respirable fraction ; |

Advice on system design:

Provide local exhaust ventilation to control vapours/mists.

Personal protective equipment

Respiratory protection:

Respiratory protection may not be required under normal operating conditions if adequate ventilation is provided. Wear respiratory protection if ventilation is inadequate. Breathing protection if dusts are formed.

Hand protection:

Chemical resistant protective gloves, non-static gloves (e.g. of leather)

Eye protection:

Tightly fitting safety goggles (chemical goggles).

Body protection:

Anti-static protective clothing, Antistatic safety shoes

General safety and hygiene measures:

Avoid inhalation of dusts/mists/vapours. When using do not eat or drink. When using do not smoke.

9. Physical and Chemical Properties

| | | |
|--------------------------------------|-------------------------|--|
| Form: | beads | |
| Odour: | faint specific odour | |
| Colour: | black | |
| pH value: | | not soluble |
| softening temperature: | approx. 160 °F | |
| Boiling point: | | not applicable |
| Sublimation point: | | not applicable |
| Flash point: | | Vapours are flammable. |
| <i>Information on: Pentane</i> | | |
| Flash point: | -56 °C | |
| ----- | | |
| Flammability: | not highly flammable | (UN Test N.1 (ready combustible solids)) |
| Flammability of Aerosol Products: | | not applicable, the product does not form flammable aerosoles) |
| Lower explosion limit: | | Product not examined: Value is calculated from the data of the components. |
| Upper explosion limit: | | Product not examined: Value is calculated from the data of the components. |
| Autoignition: | 285 °C | (DIN 51794) |

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| | | |
|---|--|--|
| Vapour pressure: | | not applicable |
| Density: | approx. 1.02 - 1.05 g/cm ³ | (20 °C) |
| Bulk density: | approx. 650 kg/m ³ | (20 °C) |
| Vapour density: | 2.5 | Heavier than air. |
| Partitioning coefficient n-octanol/water (log Pow): | | not applicable |
| Self-ignition temperature: | | not self-igniting |
| Thermal decomposition: | approx. 220 °C No decomposition if used as directed. | |
| Viscosity, dynamic: | | not applicable, the product is a solid |
| Viscosity, kinematic: | | not applicable, the product is a solid |
| Solubility in water: | | not soluble |
| Miscibility with water: | | immiscible |
| Solubility (qualitative): | soluble solvent(s): aromatic hydrocarbons, ketones, organic solvents, | |
| Evaporation rate: | | The product is a non-volatile solid. |

10. Stability and Reactivity

Reactivity

No hazardous reactions if stored and handled as prescribed/indicated., Vapours may form explosive mixture with air.

Oxidizing properties:
not fire-propagating

Chemical stability

The product is stable if stored and handled as prescribed/indicated.

Possibility of hazardous reactions

Formation of explosive gas/air mixtures.

Conditions to avoid

> 70 degrees Celsius

Avoid all sources of ignition: heat, sparks, open flame. Avoid direct sunlight. Avoid electro-static discharge.

Incompatible materials

explosive substances according UN transport regulations class 1, Propellant release will be boosted with increasing temperature.

Hazardous decomposition products

Decomposition products:

Possible thermal decomposition products: Pentane, styrene monomers, Heated product evolves combustible vapours.

Thermal decomposition:

approx. 220 °C

No decomposition if used as directed.

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11. Toxicological information

Primary routes of exposure

Routes of entry for solids and liquids are ingestion and inhalation, but may include eye or skin contact. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquefied gases.

Acute Toxicity/Effects

Acute toxicity

Assessment of acute toxicity: not applicable

Information on: isopentane

Assessment of acute toxicity: Aspiration may result in chemical pneumonitis, which may be fatal.

Oral

Type of value: LD50

Value: > 2,000 mg/kg

Inhalation

Type of value: LC50

Value: > 5 mg/l

Dermal

Type of value: LD50

Value: > 2,000 mg/kg

Assessment other acute effects

No applicable information available.

Irritation / corrosion

Assessment of irritating effects: Irritation is possible when the product comes in contact with the skin, respiratory tract or the eyes.

Skin

Prolonged contact with the product can result in skin irritation.

Eye

Similar findings as for skin apply to eyes.

Sensitization

Assessment of sensitization: There is no evidence of a skin-sensitizing potential.

Chronic Toxicity/Effects

Repeated dose toxicity

Assessment of repeated dose toxicity: Based on our experience and the information available, no adverse health effects are expected if handled as recommended with suitable precautions for designated uses.

Genetic toxicity

Assessment of mutagenicity: Based on our experience and the information available, no adverse health effects are expected if handled as recommended with suitable precautions for designated uses.

Carcinogenicity

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Assessment of carcinogenicity: Based on our experience and the information available, no adverse health effects are expected if handled as recommended with suitable precautions for designated uses.

Reproductive toxicity

Assessment of reproduction toxicity: Based on our experience and the information available, no adverse health effects are expected if handled as recommended with suitable precautions for designated uses.

Other Information

No reports of ill effects provided product was correctly handled and processed.

Symptoms of Exposure

headache, dizziness, incoordination, dazed state, Eye irritation, skin irritation

12. Ecological Information

Toxicity

Aquatic toxicity

Assessment of aquatic toxicity:

There is a high probability that the product is not acutely harmful to aquatic organisms. No toxic effects occur within the range of solubility.

Aquatic invertebrates

EC50 (48 h) > 100 mg/l, Daphnia magna (OECD Guideline 202, part 1, static)

Nominal concentration. The product has low solubility in the test medium. An eluate has been tested. No toxic effects occur within the range of solubility. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Aquatic plants

EC50 (72 h) > 100 mg/l (growth rate), Desmodemus subspicatus (OECD Guideline 201, static)

Nominal concentration. The product has low solubility in the test medium. An eluate has been tested. No toxic effects occur within the range of solubility. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Persistence and degradability

Assessment biodegradation and elimination (H2O)

On the basis of the data available concerning eliminability/degradation and bioaccumulation potential, longer-term harm to the environment is improbable. No data available concerning biodegradation and elimination.

In accordance with the required stability the product is not readily biodegradable. The product has not been tested. The statement has been derived from the structure of the product. The product is virtually insoluble in water and can thus be separated from water mechanically in suitable effluent treatment plants.

Elimination information

Non-biodegradable.

Bioaccumulative potential

Bioaccumulation potential

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The product will not be readily bioavailable due to its consistency and insolubility in water.

Mobility in soil

Assessment transport between environmental compartments
Study scientifically not justified.

Additional information

Add. remarks environm. fate & pathway:

Because of the product's consistency and low water solubility, bioavailability is improbable.

Other ecotoxicological advice:

At the present state of knowledge, no negative ecological effects are expected. No toxic effects occur within the range of solubility.

Information on: Pentane

Other ecotoxicological advice:

The substance has a very low Global Warming Potential and no Ozone Depleting Potential.

13. Disposal considerations

Waste disposal of substance:

Dispose of in a licensed facility. Observe all local regulations.

Container disposal:

Remove all packaging for recovery or disposal

14. Transport Information

Land transport

TDG

Hazard class: 9
Packing group: III
ID number: UN 2211
Hazard label: 9
Proper shipping name: POLYMERIC BEADS, EXPANDABLE

Sea transport

IMDG

Hazard class: 9
Packing group: III
ID number: UN 2211
Hazard label: 9
Marine pollutant: NO
Proper shipping name: POLYMERIC BEADS, EXPANDABLE

Air transport

IATA/ICAO

Hazard class: 9
Packing group: III

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ID number: UN 2211
Hazard label: 9
Proper shipping name: POLYMERIC BEADS, EXPANDABLE

15. Regulatory Information

Federal Regulations

Registration status:

Chemical DSL, CA released / listed

Not WHMIS controlled.

THIS PRODUCT HAS BEEN CLASSIFIED IN ACCORDANCE WITH THE HAZARD CRITERIA OF THE CPR AND THE MSDS CONTAINS ALL THE INFORMATION REQUIRED BY THE CPR.

Assessment of the hazard classes according to UN GHS criteria (most recent version):

16. Other Information

SDS Prepared by:

BASF NA Product Regulations
SDS Prepared on: 2015/04/16

We support worldwide Responsible Care® initiatives. We value the health and safety of our employees, customers, suppliers and neighbors, and the protection of the environment. Our commitment to Responsible Care is integral to conducting our business and operating our facilities in a safe and environmentally responsible fashion, supporting our customers and suppliers in ensuring the safe and environmentally sound handling of our products, and minimizing the impact of our operations on society and the environment during production, storage, transport, use and disposal of our products.

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