

Safety data sheet

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BASF Safety data sheet according to Regulation (EC) No. 1907/2006

Date / Revised: 26.11.2013

Version: 6.0

Product: **Neopor F5300**

(ID no. 30570114/SDS_GEN_EU/EN)

Date of print 28.11.2013

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Neopor F5300

1.2. Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses: Expanding-agent containing plastic for the production of foam plastics
Recommended use: for industrial use only, Expanding-agent containing plastic for the production of foam plastics

1.3. Details of the supplier of the safety data sheet

Company:
BASF SE
67056 Ludwigshafen
GERMANY

Telephone: +49 621 60-0
E-mail address: global.info@basf.com

1.4. Emergency telephone number

International emergency number:
Telephone: +49 180 2273-112

SECTION 2: Hazards Identification

2.1. Classification of the substance or mixture

According to Regulation (EC) No 1272/2008 [CLP]

In use may form flammable/explosive vapour-air mixture.

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According to Directive 67/548/EEC or 1999/45/EC

In use, may form flammable/explosive vapour-air mixture.

Possible Hazards:

Product releases a flammable hydrocarbon.

2.2. Label elements

Globally Harmonized System, EU (GHS)

Hazard Statement:

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

Precautionary Statement:

P210 Keep away from heat/sparks/open flames/hot surfaces. – No smoking.

P233 Keep container tightly closed.

P243 Take precautionary measures against static discharge.

P403 + P235 Store in a well-ventilated place. Keep cool.

According to Directive 67/548/EEC or 1999/45/EC

Directive 1999/45/EC ('Preparation Directive')

R-phrase(s)

R18 In use, may form flammable/explosive vapour-air mixture.

S-phrase(s)

S16 Keep away from sources of ignition - No smoking.

S33 Take precautionary measures against static discharges.

S3/7 Keep container tightly closed and in a cool place.

S9 Keep container in a well-ventilated place.

The propellant, which is contained in the preparation and is embedded in the polymer beads, is released slowly by the preparation under advised handling and storage conditions.

The preparation is not to be regarded as harmful for the environment in the form in which it is placed on the market.

2.3. Other hazards

According to Regulation (EC) No 1272/2008 [CLP]

No specific dangers known, if the regulations/notes for storage and handling are considered.

SECTION 3: Composition/Information on Ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Chemical nature

Preparation based on: polystyrene, propellant, polymeric flame-proofing agent, Graphite

Hazardous ingredients (GHS)

according to Regulation (EC) No. 1272/2008

pentane

Content (W/W): <= 4.5 %	Asp. Tox. 1
CAS Number: 109-66-0	Flam. Liq. 2
EC-Number: 203-692-4	STOT SE 3 (drowsiness and dizziness)
INDEX-Number: 601-006-00-1	Aquatic Chronic 2
	H225, H304, H336, H411

isopentane; 2-methylbutane

Content (W/W): <= 1.1 %	Asp. Tox. 1
CAS Number: 78-78-4	Flam. Liq. 1
EC-Number: 201-142-8	STOT SE 3 (drowsiness and dizziness)
INDEX-Number: 601-006-00-1	Aquatic Chronic 2
	H224, H304, H336, H411

Hazardous ingredients

according to Directive 1999/45/EC

pentane

Content (W/W): >= 3 % - <= 7 %
 CAS Number: 109-66-0
 EC-Number: 203-692-4
 INDEX-Number: 601-006-00-1
 Hazard symbol(s): F+, Xn, N
 R-phrases: 12, 51/53, 65, 66, 67

isopentane; 2-methylbutane

Content (W/W): >= 0.5 % - <= 1.5 %
 CAS Number: 78-78-4
 EC-Number: 201-142-8
 INDEX-Number: 601-006-00-1
 Hazard symbol(s): F+, Xn, N
 R-phrases: 12, 51/53, 65, 66, 67

For the classifications not written out in full in this section, including the indication of danger, the hazard symbols, the R phrases, and the hazard statements, the full text is listed in section 16.

SECTION 4: First-Aid Measures

4.1. Description of first aid measures

No special precautions necessary.

If inhaled:

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

On skin contact:

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

On contact with 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.

On ingestion:

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

4.2. Most important symptoms and effects, both acute and delayed

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

Hazards: No hazards anticipated.

4.3. Indication of any immediate medical attention and special treatment needed

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

SECTION 5: Fire-Fighting Measures

5.1. Extinguishing media

Suitable extinguishing media:

water spray, foam, dry powder, carbon dioxide

Unsuitable extinguishing media for safety reasons:

water jet

5.2. Special hazards arising from the substance or mixture

carbon monoxide, Carbon dioxide, styrene, aliphatic hydrocarbons

The substances/groups of substances mentioned can be released in case of fire.

5.3. Advice for fire-fighters

Special protective equipment:

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.

SECTION 6: 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.

6.1. 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.

6.2. Environmental precautions

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

6.3. 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.

6.4. Reference to other sections

Information regarding exposure controls/personal protection and disposal considerations can be found in section 8 and 13.

SECTION 7: Handling and Storage

7.1. Precautions for safe handling

Avoid dust formation. Avoid inhalation of dusts. Keep away from sources of ignition - No smoking. Take precautionary measures against static discharges. Product may charge electrostatically: always use earthing leads when transferring from one container to another and earth containers. It is recommended that operators should wear antistatic clothing and footwear. Use antistatic tools. Provide good room ventilation even at ground level (vapours are heavier than air). Monitoring of the air in work room necessary.

Protect against moisture. Protect from direct sunlight. Protect against heat. Keep container tightly sealed. Containers under pressure should be opened with care to release pressure. Once container is opened, content should be used as soon as possible. Re-open used containers with caution. Provide good ventilation when handling large quantities. Containers should be opened carefully in well-ventilated areas to avoid static discharge. Sealed containers should be protected against heat as this results in pressure build-up.

Processing machines must be fitted with local exhaust ventilation. Avoid the formation and deposition of dust. During transportation in silo trucks the product is covered with nitrogen, do not climb in. Monitoring of the air in work room necessary. Product should be worked up in closed equipment as far as possible. Protect the container opening with a wire mesh cover.

Protection against fire and explosion:

Vapours may form ignitable mixture with air. Prevent electrostatic charge - sources of ignition should be kept well clear - fire extinguishers should be kept handy. Keep away from heat. 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. The product is combustible. Avoid flammable gas mixtures. 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. The conveying velocity of the product should not exceed 8 m/second. Empty containers may contain flammable residue. All parts of the plant and equipment should be electrically bonded together and grounded. Electrical continuity should be checked at regular intervals.

Temperature class: T3 (Autoignition temperature >200 °C).

7.2. Conditions for safe storage, including any incompatibilities

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 sealed. 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. Equipment to be installed in an environment with potentially explosive atmospheres should conform to the requirements of ATEX Directive 94/9/EC. 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.

7.3. Specific end use(s)

For the relevant identified use(s) listed in Section 1 the advice mentioned in this section 7 is to be observed.

SECTION 8: Exposure Controls/Personal Protection**8.1. Control parameters**Components with occupational exposure limits

109-66-0: pentane

TWA value 3,000 mg/m³ ; 1,000 ppm (OEL (EU))
indicative

78-78-4: isopentane; 2-methylbutane

TWA value 3,000 mg/m³ ; 1,000 ppm (OEL (EU))
indicative

8.2. Exposure controlsPersonal protective equipment

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Respiratory protection:
Breathing protection if dusts are formed.

Hand protection:
Suitable materials also with prolonged, direct contact (Recommended: Protective index 6, corresponding > 480 minutes of permeation time according to EN 374):
Manufacturer's directions for use should be observed because of great diversity of types.

Eye protection:
Safety glasses

Body protection:
Anti-static protective clothing, safety shoes (f.e. according to EN 20346), antistatic

General safety and hygiene measures

Avoid inhalation of dusts/mists/vapours. No special precautions necessary. When using do not eat or drink. When using do not smoke.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Form:	beads
Colour:	black
Odour:	faint specific odour
pH value:	
	not soluble
softening temperature:	approx. 70 °C
Boiling point:	
	not applicable
Sublimation point:	
	not applicable
Flash point:	
	Vapours are flammable.

Information on: pentane

Flash point: -56 °C

Flammability: not highly flammable (UN Test N.1 (ready combustible solids))

Lower explosion limit: Product not examined: Value is calculated from the data of the components.

Information on: pentane

Lower explosion limit:

For liquids not relevant for classification and labelling., The lower explosion point may be 5 - 15 °C below the flash point.

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Upper explosion limit:

Product not examined: Value is calculated from the data of the components.

*Information on: pentane**Upper explosion limit:**For liquids not relevant for classification and labelling.*-----
Ignition temperature:

285 °C

(DIN 51794)

Vapour pressure:

not applicable

Density:

approx. 1.02 - 1.05 g/cm³
(20 °C)

Relative vapour density (air):2.5

Heavier than air.

Solubility (qualitative) solvent(s): aromatic hydrocarbons, ketones, organic solvents
soluble

Partitioning coefficient n-octanol/water (log Kow):

not applicable

Self ignition:

not self-igniting

Test type: Spontaneous self-ignition at room-temperature.

Thermal decomposition: approx. 220 °C

No decomposition if used as directed.

Explosion hazard:

not explosive

Fire promoting properties:

not fire-propagating

9.2. Other information

Bulk density:

approx. 600 kg/m³
(20 °C)

Miscibility with water:

immiscible

SECTION 10: Stability and Reactivity**10.1. Reactivity**

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

10.2. Chemical stability

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

10.3. Possibility of hazardous reactions

Formation of explosive gas/air mixtures.

10.4. Conditions to avoid

> 70 °C

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

10.5. Incompatible materials

Substances to avoid:

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

10.6. Hazardous decomposition products

Possible thermal decomposition products:

pentane

styrene monomers, Heated product evolves combustible vapours.

SECTION 11: Toxicological Information

11.1. Information on toxicological effects

Acute toxicity

Assessment of acute toxicity:
not applicable

Experimental/calculated data:
LD50 (oral): > 2,000 mg/kg

LC50 (by inhalation): > 5 mg/l

LD50 (dermal): > 2,000 mg/kg

Irritation

Assessment of irritating effects:
No irritation is expected under intended use and appropriate handling.

Experimental/calculated data:
Skin corrosion/irritation: non-irritant

Serious eye damage/irritation: non-irritant

Respiratory/Skin sensitization

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

Experimental/calculated data:
Non-sensitizing.

Germ cell mutagenicity

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.

CarcinogenicityAssessment 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 toxicityAssessment 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.

Repeated dose toxicity and Specific target organ toxicity (repeated exposure)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.

Other relevant toxicity information

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

SECTION 12: Ecological Information

12.1. 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.

12.2. 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.

12.3. Bioaccumulative potential

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

12.4. Mobility in soil

Assessment transport between environmental compartments:
Study scientifically not justified.

12.5. Results of PBT and vPvB assessment

The product does not fulfill the criteria for PBT (Persistent/bioaccumulative/toxic) and vPvB (very persistent/very bioaccumulative).

12.6. Other adverse effects

not applicable

12.7. 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.

SECTION 13: Disposal Considerations

13.1. Waste treatment methods

Check for possible recycling.

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Can be used after re-conditioning.
 Must be disposed of or incinerated in accordance with local regulations.
 Observe national and local legal requirements.
 We recommend the specified waste key.

Waste key:
 07 02 13 waste plastic

Contaminated packaging:
 Completely emptied packagings can be given for recycling.
 Contact manufacturer regarding recycling.

SECTION 14: Transport Information

Land transport

ADR

UN number	UN2211
UN proper shipping name:	POLYMERIC BEADS, EXPANDABLE
Transport hazard class(es):	-
Packing group:	III
Environmental hazards:	no
Special precautions for user:	Tunnel code: D/E Can release flammable vapors. No smoking. Ventilate freight container with open door for one hour before unloading.

RID

UN number	UN2211
UN proper shipping name:	POLYMERIC BEADS, EXPANDABLE
Transport hazard class(es):	-
Packing group:	III
Environmental hazards:	no
Special precautions for user:	Can release flammable vapors. No smoking. Ventilate freight container with open door for one hour before unloading.

Inland waterway transport

ADN

UN number	UN2211
UN proper shipping name:	POLYMERIC BEADS, EXPANDABLE
Transport hazard class(es):	-
Packing group:	III
Environmental hazards:	no
Special precautions for user:	Can release flammable vapors. No smoking. Ventilate freight container with open door for one hour before unloading.

Transport in inland
waterway vessel: Not evaluated

Sea transport

IMDG

UN number: UN 2211
 UN proper shipping name: POLYMERIC BEADS, EXPANDABLE
 Transport hazard class(es): 9
 Packing group: III
 Environmental hazards: no
 Marine pollutant: NO
 Special precautions for user: Can release flammable vapors. No smoking. Ventilate freight container with open door for one hour before unloading.

Air transport

IATA/ICAO

UN number: UN 2211
 UN proper shipping name: POLYMERIC BEADS, EXPANDABLE
 Transport hazard class(es): 9
 Packing group: III
 Environmental hazards: No Mark as dangerous for the environment is needed
 Special precautions for user: Can release flammable vapors. No smoking. Ventilate freight container with open door for one hour before unloading.

14.1. UN number

See corresponding entries for "UN number" for the respective regulations in the tables above.

14.2. UN proper shipping name

See corresponding entries for "UN proper shipping name" for the respective regulations in the tables above.

14.3. Transport hazard class(es)

See corresponding entries for "Transport hazard class(es)" for the respective regulations in the tables above.

14.4. Packing group

See corresponding entries for "Packing group" for the respective regulations in the tables above.

14.5. Environmental hazards

See corresponding entries for "Environmental hazards" for the respective regulations in the tables above.

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14.6. Special precautions for user

See corresponding entries for "Special precautions for user" for the respective regulations in the tables above.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Regulation:	Not evaluated
Shipment approved:	Not evaluated
Pollution name:	Not evaluated
Pollution category:	Not evaluated
Ship Type:	Not evaluated

SECTION 15: Regulatory Information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

Directive 94/62/EC on packaging and packaging waste

If other regulatory information applies that is not already provided elsewhere in this safety data sheet, then it is described in this subsection.

15.2. Chemical Safety Assessment

Chemical Safety Assessment not required

SECTION 16: Other Information

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

In addition to the information given in the safety data sheet we refer to the product specific 'Technical Information'.

Full text of the classifications, including the indication of danger, the hazard symbols, the R phrases, and the hazard statements, if mentioned in section 2 or 3:

F+	Extremely flammable.
Xn	Harmful.
N	Dangerous for the environment.
12	Extremely flammable.
51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
65	Harmful: may cause lung damage if swallowed.
66	Repeated exposure may cause skin dryness or cracking.
67	Vapours may cause drowsiness and dizziness.
Asp. Tox.	Aspiration hazard
Flam. Liq.	Flammable liquid
STOT SE	Specific target organ toxicity — single exposure

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Aquatic Chronic	Hazardous to the aquatic environment - chronic
H225	Highly flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H336	May cause drowsiness or dizziness.
H411	Toxic to aquatic life with long lasting effects.
H224	Extremely flammable liquid and vapour.

The data contained in this safety data sheet are based on our current knowledge and experience and describe the product only with regard to safety requirements. The data do not describe the product's properties (product specification). Neither should any agreed property nor the suitability of the product for any specific purpose be deduced from the data contained in the safety data sheet. It is the responsibility of the recipient of the product to ensure any proprietary rights and existing laws and legislation are observed.

Vertical lines in the left hand margin indicate an amendment from the previous version.