

HPD UNIQUE IDENTIFIER: 29266

CLASSIFICATION: 07 21 13.13 Foam Board Insulation

PRODUCT DESCRIPTION: Neopor® GPS is a graphite-enhanced rigid insulation material made from BASF's Neopor® expandable polystyrene resin. By using a polymeric flame retardant (PolymerFR), BASF continues to ensure the availability of eco-efficient thermal insulation solutions for sustainable construction.

Section 1: Summary

Basic Method / Product Threshold

CONTENT INVENTORY

<p><b>Inventory Reporting Format</b></p> <p><input type="radio"/> Nested Materials Method</p> <p><input checked="" type="radio"/> Basic Method</p> <p><b>Threshold Disclosed Per</b></p> <p><input type="radio"/> Material</p> <p><input checked="" type="radio"/> Product</p>	<p><b>Threshold Level</b></p> <p><input checked="" type="radio"/> 100 ppm</p> <p><input type="radio"/> 1,000 ppm</p> <p><input type="radio"/> Per GHS SDS</p> <p><input type="radio"/> Other</p>	<p><b>Residuals/Impurities Evaluation</b></p> <p><input checked="" type="radio"/> Completed</p> <p><input type="radio"/> Partially Completed</p> <p><input type="radio"/> Not Completed</p> <p><b>Explanation(s) provided :</b></p> <p><input checked="" type="radio"/> Yes <input type="radio"/> No</p>	<p><i>For all contents above the threshold, the manufacturer has:</i></p> <p><b>Characterized</b> <input checked="" type="radio"/> Yes <input type="radio"/> No</p> <p><i>Provided weight and role.</i></p> <p><b>Screened</b> <input checked="" type="radio"/> Yes <input type="radio"/> No</p> <p><i>Provided screening results using HPDC-approved methods.</i></p> <p><b>Identified</b> <input type="radio"/> Yes <input checked="" type="radio"/> No</p> <p><i>Provided name and CAS RN or other identifier.</i></p>
--	--	--	---

CONTENT IN DESCENDING ORDER OF QUANTITY

Summary of product contents and results from screening individual chemical substances against HPD Priority Hazard Lists and the GreenScreen for Safer Chemicals®. The HPD does not assess whether using or handling this product will expose individuals to its chemical substances or any health risk. Refer to Section 2 for further details.

**PRODUCT | MATERIAL OR SUBSTANCE | RESIDUAL OR IMPURITY**  
**GREENSCREEN SCORE | HAZARD TYPE**  
**NEOPOR® KF 2400 [ POLYSTYRENE LT-UNK ] | MUL | CAN PENTANE LT-P1 | MUL | PHY | MAM | AQU | EYE | | DEV | NEU GRAPHITE LT-UNK | | MUL WATER BM-4 ISOPENTANE LT-P1 | MUL | MAM | AQU | PHY | EYE | | DEV | NEU UNDISCLOSED LT-1 | PBT ]**

Number of Greenscreen BM-4/BM3 contents ... 1  
 Contents highest-concern GreenScreen score(s) (BM-1, LT-1, LT-P1) ... LT-P1, LT-1  
 Nanomaterial ... No

INVENTORY AND SCREENING NOTES:

All substances including residuals and impurities above the OSHA threshold are included in the screening process.

VOLATILE ORGANIC COMPOUND (VOC) CONTENT

VOC Content data is not applicable for this product category.

CERTIFICATIONS AND COMPLIANCE *See Section 3 for additional listings.*

VOC emissions: GreenGuard - Gold (previously Children & Schools)  
 VOC emissions: GreenGuard - Indoor Air Quality Certified

CONSISTENCY WITH OTHER PROGRAMS

Pre-checked for LEED v4 Option 1.

Third Party Verified?

- Yes
- No

PREPARER: Self-Prepared  
 VERIFIER:  
 VERIFICATION #:

SCREENING DATE: 2022-07-13  
 PUBLISHED DATE: 2022-07-20  
 EXPIRY DATE: 2025-07-13

## Section 2: Content in Descending Order of Quantity

This section lists contents in a product based on specific threshold(s) and reports detailed health information including hazards. This HPD uses the inventory method indicated above, which is one of three possible methods:

- Basic Inventory method with Product-level threshold.
- Nested Material Inventory method with Product-level threshold
- Nested Material Inventory method with individual Material-level thresholds

Definitions and requirements for the three inventory methods and requirements for each data field can be found in the HPD Open Standard version 2.3, available on the HPDC website at: [www.hpd-collaborative.org/hpd-2-3-standard](http://www.hpd-collaborative.org/hpd-2-3-standard)

### NEOPOR® KF 2400

PRODUCT THRESHOLD: 100 ppm

RESIDUALS AND IMPURITIES EVALUATION COMPLETED: Yes

RESIDUALS AND IMPURITIES NOTES: All substances including residuals and impurities above the OSHA declared threshold are included in the HPD evaluation.

OTHER PRODUCT NOTES: All insulation boards with Neopor® KF 2400 GPS meet not only the demanding criteria of the Greenguard certificate, but also the requirements of the Californian Department of Public Health Services. As a result, the raw material has been given the Greenguard Gold label, which means it may also be used in schools and health facilities accommodating children or elderly people, in addition to commercial buildings.

Manufacturers producing Neopor® GPS insulation boards can also benefit from the certification of the raw material; by applying for an extended license from UL (Underwriter Laboratories), they can have their product labeled as protective of health for indoor spaces.

### POLYSTYRENE

ID: 9003-53-6

HAZARD DATA SOURCE: Pharos Chemical and Materials Library

HAZARD SCREENING DATE: 2022-07-19 7:24:42

%: 80.0000 - 100.0000

GreenScreen: LT-UNK

RC: None

NANO: No

SUBSTANCE ROLE: Insulator

HAZARD TYPE

AGENCY AND LIST TITLES

WARNINGS

EC - CEPA DSL

Persistent

MUL

EC - CEPA DSL

Inherently Toxic to Humans (iTH)

CAN

IARC

Group 3 - Agent is not classifiable as to its carcinogenicity to humans

ADDITIONAL LISTINGS

AGENCY AND LIST TITLES

NOTIFICATION

RESTRICTED LIST

Perkins+Will (P+W)

P&W - Precautionary List

SUBSTANCE NOTES: Neopor® is composed of small black beads of polystyrene (EPS) granulate containing a blowing agent, which makes it expandable. The material developed and produced by BASF is processed by foam manufacturers into insulation materials and systems for a wide range of applications.

### PENTANE

ID: 109-66-0

HAZARD DATA SOURCE: Pharos Chemical and Materials Library

HAZARD SCREENING DATE: 2022-07-14 13:53:08

%: 3.0000 - 7.0000

GreenScreen: LT-P1

RC: None

NANO: No

SUBSTANCE ROLE: Blowing agent

HAZARD TYPE

AGENCY AND LIST TITLES

WARNINGS

MUL

German FEA - Substances Hazardous to Waters

Class 2 - Hazard to Waters

PHY	EU - GHS (H-Statements) Annex 6 Table 3-1	H225 - Highly flammable liquid and vapour [Flammable liquids - Category 2]
MAM	EU - GHS (H-Statements) Annex 6 Table 3-1	H304 - May be fatal if swallowed and enters airways [Aspiration hazard - Category 1]
AQU	EU - GHS (H-Statements) Annex 6 Table 3-1	H411 - Toxic to aquatic life with long lasting effects [Hazardous to the aquatic environment (chronic) - Category 2]
EYE	GHS - New Zealand	Eye irritation category 2
	EC - CEPA DSL	Persistent
DEV	MAK	Pregnancy Risk Group C
EYE	GHS - Japan	H319 - Causes serious eye irritation [Serious eye damage / eye irritation - Category 2B]
MAM	GHS - Japan	H335 or H336 [Specific target organs/systemic toxicity following single exposure - Category 3]
NEU	Boyes - Neurotoxicants	Neurotoxic
AQU	GHS - Australia	H411 - Toxic to aquatic life with long lasting effects [Hazardous to the aquatic environment (chronic) - Category 2]
PHY	Québec CSST - WHMIS 1988	Class B2 - Flammable liquids
AQU	GHS - Japan	H401 - Toxic to aquatic life [Hazardous to the aquatic environment (acute) - Category 2]
NEU	EU - GHS (H-Statements) Annex 6 Table 3-1	H336 - May cause drowsiness or dizziness [Specific target organ toxicity - single exposure; Narcotic effects - Category 3]
PHY	GHS - New Zealand	Flammable liquids category 2
PHY	GHS - Japan	H225 - Highly flammable liquid and vapour [Flammable liquids - Category 2]
PHY	GHS - Malaysia	H225 - Highly flammable liquid and vapour [Flammable liquids - Category 2]
NEU	GHS - Malaysia	H336 - May cause drowsiness or dizziness [Specific target organ toxicity - single exposure; Narcotic effects - Category 3]
PHY	GHS - Australia	H225 - Highly flammable liquid and vapour [Flammable liquids - Category 2]
NEU	GHS - Australia	H336 - May cause drowsiness or dizziness [Specific target organ toxicity - single exposure; Narcotic effects - Category 3]
AQU	GHS - Malaysia	H411 - Toxic to aquatic life with long lasting effects [Hazardous to the aquatic environment (chronic) - Category 2]
MAM	GHS - New Zealand	Specific target organ toxicity - single exposure category 3 narcotic effects
ADDITIONAL LISTINGS	AGENCY AND LIST TITLES	NOTIFICATION
None found		No listings found on Additional Hazard Lists

SUBSTANCE NOTES:

**GRAPHITE**

ID: 7782-42-5

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2022-07-15 4:21:45**%: **3.0000 - 5.0000** GreenScreen: **LT-UNK** RC: **None** NANO: **No** SUBSTANCE ROLE: **Heat or UV stabilizer**

HAZARD TYPE AGENCY AND LIST TITLES WARNINGS

EC - CEPA DSL Persistent

MUL Québec CSST - WHMIS 1988 Class D2A - Very toxic material causing other toxic effects

ADDITIONAL LISTINGS AGENCY AND LIST TITLES NOTIFICATION

None found No listings found on Additional Hazard Lists

SUBSTANCE NOTES:

**WATER**

ID: 7732-18-5

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2022-07-15 4:22:23**%: **Impurity/Residual** GreenScreen: **BM-4** RC: **None** NANO: **No** SUBSTANCE ROLE: **Impurity/Residual**

HAZARD TYPE AGENCY AND LIST TITLES WARNINGS

None found No warnings found on HPD Priority Hazard Lists

ADDITIONAL LISTINGS AGENCY AND LIST TITLES NOTIFICATION

EXEMPT European Union / European Commission (EU EC) EU - REACH Exemptions

POSITIVE LIST US Environmental Protection Agency (US EPA) US EPA - DfE SCIL

SUBSTANCE NOTES:

**ISOPENTANE**

ID: 78-78-4

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2022-07-15 4:23:12**%: **0.3000 - 3.0000** GreenScreen: **LT-P1** RC: **None** NANO: **No** SUBSTANCE ROLE: **Blowing agent**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
MUL	German FEA - Substances Hazardous to Waters	Class 2 - Hazard to Waters
MAM	EU - GHS (H-Statements) Annex 6 Table 3-1	H304 - May be fatal if swallowed and enters airways [Aspiration hazard - Category 1]
AQU	EU - GHS (H-Statements) Annex 6 Table 3-1	H411 - Toxic to aquatic life with long lasting effects [Hazardous to the aquatic environment (chronic) - Category 2]
PHY	EU - GHS (H-Statements) Annex 6 Table 3-1	H224 - Extremely flammable liquid and vapour [Flammable liquids - Category 1]
EYE	GHS - New Zealand	Eye irritation category 2
	EC - CEPA DSL	Persistent
DEV	MAK	Pregnancy Risk Group C
MAM	GHS - Japan	H335 or H336 [Specific target organs/systemic toxicity following single exposure - Category 3]
AQU	GHS - Australia	H411 - Toxic to aquatic life with long lasting effects [Hazardous to the aquatic environment (chronic) - Category 2]
EYE	GHS - Japan	H319 - Causes serious eye irritation [Serious eye damage / eye irritation - Category 2]
PHY	Québec CSST - WHMIS 1988	Class B2 - Flammable liquids
AQU	GHS - Japan	H401 - Toxic to aquatic life [Hazardous to the aquatic environment (acute) - Category 2]
NEU	EU - GHS (H-Statements) Annex 6 Table 3-1	H336 - May cause drowsiness or dizziness [Specific target organ toxicity - single exposure; Narcotic effects - Category 3]
NEU	GHS - Australia	H336 - May cause drowsiness or dizziness [Specific target organ toxicity - single exposure; Narcotic effects - Category 3]
MAM	GHS - New Zealand	Specific target organ toxicity - single exposure category 3 narcotic effects
PHY	GHS - New Zealand	Flammable liquids category 1
PHY	GHS - Japan	H224 - Extremely flammable liquid and vapour [Flammable liquids - Category 1]
PHY	GHS - Australia	H224 - Extremely flammable liquid and vapour [Flammable liquids - Category 1]
ADDITIONAL LISTINGS	AGENCY AND LIST TITLES	NOTIFICATION
None found		No listings found on Additional Hazard Lists

SUBSTANCE NOTES:

UNDISCLOSED

ID: Undisclosed

HAZARD DATA SOURCE: Pharos Chemical and Materials Library HAZARD SCREENING DATE: 2022-07-15 4:24:04

%: 0.1000 - 2.0000

GreenScreen: LT-1

RC: None

NANO: No

SUBSTANCE ROLE: Flame retardant

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
PBT	OSPAR - Priority PBTs & EDs & equivalent concern	PBT - Chemical for Priority Action
ADDITIONAL LISTINGS	AGENCY AND LIST TITLES	NOTIFICATION
RESTRICTED LIST	Perkins+Will (P+W)	P&W - Precautionary List
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CPPI)	C2C Certified v4 Product Standard Restricted Substances List (RSL) - Effective July 1, 2021
RESTRICTED LIST	International Living Future Institute (ILFI)	Living Building Challenge 4.0 - Red List of Materials & Chemicals

SUBSTANCE NOTES:

## Section 3: Certifications and Compliance

*This section lists applicable certification and standards compliance information for VOC emissions and VOC content. Other types of health or environmental performance testing or certifications completed for the product may be provided.*

VOC EMISSIONS	GreenGuard - Gold (previously Children & Schools)	
CERTIFYING PARTY: Third Party	ISSUE DATE: 2008-04-21	CERTIFIER OR LAB: UL
APPLICABLE FACILITIES: Florham Park , NJ Wyandotte, MI	EXPIRY DATE: 2022-10-08	
CERTIFICATE URL: <a href="https://spot.ul.com/main-app/products/detail/5ad1e81d55b0e82d946a094a?page_type=Products%20Catalog">https://spot.ul.com/main-app/products/detail/5ad1e81d55b0e82d946a094a?page_type=Products%20Catalog</a>		
CERTIFICATION AND COMPLIANCE NOTES: Certificate Number 5253-420		

VOC EMISSIONS	GreenGuard - Indoor Air Quality Certified	
CERTIFYING PARTY: Third Party	ISSUE DATE: 2004-11-08	CERTIFIER OR LAB: UL
APPLICABLE FACILITIES: Florham Park, NJ Wyandotte, MI	EXPIRY DATE: 2022-10-08	
CERTIFICATE URL: <a href="https://spot.ul.com/main-app/products/detail/5ad1e81d55b0e82d946a094a?page_type=Products%20Catalog">https://spot.ul.com/main-app/products/detail/5ad1e81d55b0e82d946a094a?page_type=Products%20Catalog</a>		
CERTIFICATION AND COMPLIANCE NOTES: Certificate Number 5253-410		

## Section 4: Accessories

*This section lists related products or materials that the manufacturer requires or recommends for installation (such as adhesives or fasteners), maintenance, cleaning, or operations. For information relating to the contents of these related products, refer to their applicable Health Product Declarations, if available.*

No accessories are required for this product.

## Section 5: General Notes

Why consider Neopor® for your next project?

- **Environment:** Neopor is a low-carbon GreenGuard Gold certified high-performing rigid insulation with a product-specific EPD.
- **Flexibility:** Neopor insulation can be used for Cavity Wall, Perimeter, Roof, EIFS, Stucco, Precast, SIPs, ICFs and more.
- **Savings:** Per nominal inch, Neopor can deliver the same R-value as XPS using up to 30% less raw material.
- **Digital:** Assets to help you with your project including BIM objects, videos and more.
- **Stable R-value:** Neopor doesn't rely on captive gases to boost its R-value. There is no R-value decline over time.

**MANUFACTURER INFORMATION**

**MANUFACTURER:** BASF Corporation  
**ADDRESS:** 11750 Katy Freeway  
 Houston TX 77079, US  
**WEBSITE:** <https://neopor.basf.us/>

**CONTACT NAME:** Customer Care  
**TITLE:** Business Development, Neopor  
**PHONE:** 800-533-8966  
**EMAIL:** [Neopor-US@basf.com](mailto:Neopor-US@basf.com)

*The listed contact is responsible for the validity of this HPD and attests that it is accurate and complete to the best of his or her knowledge.*

**KEY**

**Hazard Types**

<b>AQU</b> Aquatic toxicity	<b>LAN</b> Land toxicity	<b>PHY</b> Physical hazard (flammable or reactive)
<b>CAN</b> Cancer	<b>MAM</b> Mammalian/systemic/organ toxicity	<b>REP</b> Reproductive
<b>DEV</b> Developmental toxicity	<b>MUL</b> Multiple	<b>RES</b> Respiratory sensitization
<b>END</b> Endocrine activity	<b>NEU</b> Neurotoxicity	<b>SKI</b> Skin sensitization/irritation/corrosivity
<b>EYE</b> Eye irritation/corrosivity	<b>NF</b> Not found on Priority Hazard Lists	<b>UNK</b> Unknown
<b>GEN</b> Gene mutation	<b>OZO</b> Ozone depletion	
<b>GLO</b> Global warming	<b>PBT</b> Persistent, bioaccumulative, and toxic	

**GreenScreen (GS)**

<b>BM-4</b> Benchmark 4 (prefer-safer chemical)	<b>LT-P1</b> List Translator Possible 1 (Possible Benchmark-1)
<b>BM-3</b> Benchmark 3 (use but still opportunity for improvement)	<b>LT-1</b> List Translator 1 (Likely Benchmark-1)
<b>BM-2</b> Benchmark 2 (use but search for safer substitutes)	<b>LT-UNK</b> List Translator Benchmark Unknown
<b>BM-1</b> Benchmark 1 (avoid - chemical of high concern)	<b>NoGS</b> No GreenScreen.
<b>BM-U</b> Benchmark Unspecified (due to insufficient data)	

GreenScreen Benchmark scores sometimes also carry subscripts, which provide more context for how the score was determined. These are DG (data gap), TP (transformation product), and CoHC (chemical of high concern). For more information, see 2.2.2.4 GreenScreen® for Safer Chemicals, [www.greenscreenchemicals.org](http://www.greenscreenchemicals.org), and Best Practices for Hazard Screening on the HPDC website ([hpd-collaborative.org](http://hpd-collaborative.org)).

**Recycled Types**

**PreC** Pre-consumer recycled content  
**PostC** Post-consumer recycled content  
**UNK** Inclusion of recycled content is unknown  
**None** Does not include recycled content

**Other Terms:**

**GHS SDS** Globally Harmonized System of Classification and Labeling of Chemicals Safety Data Sheet

**Inventory Methods:**

**Nested Method / Material Threshold** Substances listed within each material per threshold indicated per material  
**Nested Method / Product Threshold** Substances listed within each material per threshold indicated per product  
**Basic Method / Product Threshold** Substances listed individually per threshold indicated per product

**Nano** Composed of nano scale particles or nanotechnology  
**Third Party Verified** Verification by independent certifier approved by HPDC  
**Preparer** Third party preparer, if not self-prepared by manufacturer  
**Applicable facilities** Manufacturing sites to which testing applies

*The Health Product Declaration (HPD) Open Standard provides for the disclosure of product contents and potential associated human and environmental health hazards. Hazard associations are based on the HPD Priority Hazard Lists, the GreenScreen List Translator™, and when available, full GreenScreen® assessments. The HPD Open Standard v2.1 is not:*

- *a method for the assessment of exposure or risk associated with product handling or use,*
- *a method for assessing potential health impacts of: (i) substances used or created during the manufacturing process or (ii) substances created after the product is delivered for end use.*

*Information about life cycle, exposure and/or risk assessments performed on the product may be reported by the manufacturer in appropriate Notes sections, and/or, where applicable, in the Certifications section.*

*The HPD Open Standard was created and is supported by the Health Product Declaration Collaborative (the HPD Collaborative), a customer-led organization composed of stakeholders throughout the building industry that is committed to the continuous improvement of building products through transparency, openness, and innovation throughout the product supply chain.*

*The product manufacturer and any applicable independent verifier are solely responsible for the accuracy of statements and claims made in this HPD and for compliance with the HPD standard noted.*