

SECTION 1 Identification

1.1. Product identifier

Product form : Mixture
Product name : Patriot HF
CAS-No. : Mixture
Product code : 7197

1.2. Other means of identification

Other means of identification : Alumina-Silicate Brick

1.3. Recommended use of the chemical and restrictions on use

Use of the substance/mixture : Refractory Brick
Recommended use : Industrial use

1.4. Supplier's details

RHI Magnesita
425 South Salem Church Road
York, PA, 17408
United States
T 717-792-3611
[Resco SDS.TDS@rhimagnesita.com](mailto:Resco_SDS.TDS@rhimagnesita.com) - WWW.RescoProducts.com

1.5. Emergency phone number

Emergency number : EMERGENCY ONLY (CHEMTREC) USA & Canada 1-800-424-9300
Outside USA & Canada +1 703-741-5970

SECTION 2 Hazard Identification

2.1. Classification of the substance or mixture

GHS US classification

Carcinogenicity, Category 1A H350 May cause cancer (Inhalation, Dust when sawing or tear out).
Specific target organ toxicity – Single exposure, Category 3, H335 May cause respiratory irritation.
Respiratory tract irritation
Full text of H statements : see section 16

2.2. Label elements

GHS US labeling

Hazard pictograms (GHS US) :



Signal word (GHS US) : Danger
Hazard statements (GHS US) : H350 - May cause cancer (Inhalation, Dust when sawing or tear out).
May dry/chap skin.
Dust from sawing or tear out may irritate eye.
Precautionary statements (GHS US) : P260 - Do not breathe dust.
P280 - Wear Safety shoes, protective gloves, eye protection.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

2.3. Hazards associated with known or reasonably anticipated uses

No additional information available

2.4. Hazards not otherwise classified

No additional information available

2.5. Unknown acute toxicity

No additional information available

SECTION 3 Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	GHS US classification
aluminium oxide, non-fibrous	CAS-No.: 1344-28-1	10 – 30	Not classified
crystalite	CAS-No.: 14464-46-1	10 – 30	Carc. 1A, H350

Full text of hazard classes and H-statements : see section 16

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SECTION 4 First aid measures

4.1. Description of necessary first-aid measures

First-aid measures general	: Never give anything by mouth to an unconscious person.
First-aid measures after inhalation	: Allow affected person to breathe fresh air.
First-aid measures after skin contact	: Gently wash with plenty of soap and water.
First-aid measures after eye contact	: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
First-aid measures after ingestion	: Rinse mouth. Do not induce vomiting.

4.2. Most important symptoms/effects, acute and delayed

Symptoms/effects after inhalation	: Dust when sawing or tear out. Danger of serious damage to health by prolonged exposure through inhalation. May cause cancer by inhalation.
Symptoms/effects after skin contact	: Slight irritation.
Symptoms/effects after eye contact	: Dust from sawing or tear out may irritate eye.

4.3. Indication of immediate medical attention and special treatment needed, if necessary

No additional information available

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media	: Use extinguishing media appropriate for surrounding fire.
Unsuitable extinguishing media	: In case of fire, all extinguishing media allowed.

5.2. Specific hazards arising from the chemical

Fire hazard	: Not flammable.
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5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions	: Fight fire with normal precautions from a reasonable distance.
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SECTION 6 Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

No additional information available

For emergency responders

Protective equipment	: Use personal protective equipment as required.
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6.2. Methods and materials for containment and cleaning up

Methods for cleaning up	: Collect spillage.
For further information refer to section 8: "Exposure controls/personal protection"	

SECTION 7 Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling	: Wear Safety shoes, Gloves. Do not handle until all safety precautions have been read and understood.
Hygiene measures	: Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

7.2. Conditions for safe storage, including incompatibilities

Storage conditions	: Store this product in a dry location where it can be protected from the elements.
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SECTION 8 Exposure controls/personal protection

8.1. Control parameters

crystalite (14464-46-1)

USA - ACGIH - Occupational Exposure Limits

ACGIH® TLV® TWA	0.025 mg/m ³ respirable dust
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USA - OSHA - Occupational Exposure Limits

OSHA PEL TWA	0.05 mg/m ³ respirable dust
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aluminium oxide, non-fibrous (1344-28-1)

USA - ACGIH - Occupational Exposure Limits

ACGIH® TLV® TWA	1 mg/m ³ respirable dust
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8.2. Appropriate engineering controls

Appropriate engineering controls	: Dust when sawing or tear out. Provide adequate ventilation to minimize dust concentrations.
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8.3. Individual protection measures, such as personal protective equipment

Hand protection:

Wear protective gloves.

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Eye protection:	
Chemical goggles or safety glasses	
Skin and body protection:	
Safety shoes. Wear suitable protective clothing	
Respiratory protection:	
Dust when sawing or tear out. Where exposure through inhalation may occur from use, respiratory protection equipment is recommended	
SECTION 9 Physical and chemical properties	
9.1. Basic physical and chemical properties	
Physical state	: Solid
Appearance	: Tan Colored Brick Shape.
Color	: light brown
Odor	: None
Odor threshold	: No data available
pH	: No data available
Melting point	: > 2000 °F
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Flammability (solid, gas)	: Not flammable.
Vapor pressure	: No data available
Relative vapor density at 20°C	: No data available
Relative density	: ≈ 2.3
Solubility	: Insoluble in water.
Partition coefficient n-octanol/water (Log Pow)	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Explosion limits	: No data available
Particle characteristics	: No data available
9.2. Data relevant with regard to physical hazard classes (supplemental)	
No additional information available	
SECTION 10 Stability and reactivity	
10.1. Reactivity	
None known.	
10.2. Chemical stability	
Stable under normal conditions.	
10.3. Possibility of hazardous reactions	
No additional information available	
10.4. Conditions to avoid	
No additional information available	
10.5. Incompatible materials	
No additional information available	
10.6. Hazardous decomposition products	
No additional information available	
SECTION 11 Toxicological information	
11.1. Information on toxicological effects	
Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified
aluminium oxide, non-fibrous (1344-28-1)	
LD50 oral rat	> 15900 mg/kg body weight (Equivalent or similar to OECD 401, Rat, Male / female, Experimental value, Oral, 14 day(s))
LC50 Inhalation - Rat	> 2.3 mg/l air (Equivalent or similar to OECD 403, 4 h, Rat, Male / female, Experimental value, Inhalation (aerosol), 14 day(s))
Skin corrosion/irritation	: Not classified
crystalite (14464-46-1)	
pH	6 – 7

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aluminium oxide, non-fibrous (1344-28-1)	
pH	9 – 10.5 (aqueous suspension, 33 %)
Serious eye damage/irritation	: Not classified
crystalite (14464-46-1)	
pH	6 – 7
aluminium oxide, non-fibrous (1344-28-1)	
pH	9 – 10.5 (aqueous suspension, 33 %)
Respiratory or skin sensitization	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: May cause cancer (Inhalation, Dust when sawing or tear out).
Reproductive toxicity	: Not classified
STOT-single exposure	: May cause respiratory irritation.
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified
aluminium oxide, non-fibrous (1344-28-1)	
Viscosity, kinematic	Not applicable (solid)
Symptoms/effects after inhalation	: Dust when sawing or tear out. Danger of serious damage to health by prolonged exposure through inhalation. May cause cancer by inhalation.
Symptoms/effects after skin contact	: Slight irritation.
Symptoms/effects after eye contact	: Dust from sawing or tear out may irritate eye.
SECTION 12 Ecological information	
12.1. Ecotoxicity	
Hazardous to the aquatic environment, short-term (acute)	: Not classified
Hazardous to the aquatic environment, long-term (chronic)	: Not classified
aluminium oxide, non-fibrous (1344-28-1)	
LC50 - Fish [1]	> 100 mg/l (96 h, Salmo trutta, Literature study)
EC50 - Crustacea [1]	> 100 mg/l (48 h, Daphnia magna, Literature study)
12.2. Persistence and degradability	
Patriot HF (Mixture)	
Persistence and degradability	Not rapidly degradable
crystalite (14464-46-1)	
Persistence and degradability	Mineral, Not applicable.
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable
aluminium oxide, non-fibrous (1344-28-1)	
Persistence and degradability	Not applicable.
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
12.3. Bioaccumulative potential	
crystalite (14464-46-1)	
Bioaccumulative potential	No data available.
aluminium oxide, non-fibrous (1344-28-1)	
Bioaccumulative potential	No data available.
12.4. Mobility in soil	
crystalite (14464-46-1)	
Ecology - soil	No data available.
aluminium oxide, non-fibrous (1344-28-1)	
Surface tension	Not applicable (water solubility < 1 mg/l)
Ecology - soil	No data available.
12.5. Other adverse effects	
Ozone	: Not classified
Fluorinated greenhouse gases	: No

SECTION 13 Disposal considerations

Product/Packaging disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.

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SECTION 14 Transport information

In accordance with DOT / TDG / IMDG / IATA

Department of Transportation (DOT)

In accordance with DOT

Not regulated

Transportation of Dangerous Goods

Not regulated

Transport by sea

Not regulated

Air transport

Not regulated

SECTION 15 Regulatory information

15.1. Federal regulations

All components of this product are present and listed as Active on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

aluminium oxide, non-fibrous (1344-28-1)

Not subject to reporting requirements of the United States SARA Section 313

Note	Note: The section 313 chemical list contains "CAS # 1344-28-1 Aluminum Oxide (Fibrous forms)"; the Aluminum oxide contained in this product is non-fibrous, and thus is not a section 313 material. Only manufacturing, processing, or otherwise use of aluminum oxide in the fibrous form triggers reporting.
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15.2. International regulations

CANADA

crystalite (14464-46-1)

Listed on the Canadian DSL (Domestic Substances List)

aluminium oxide, non-fibrous (1344-28-1)

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

No additional information available

National regulations

No additional information available

15.3. State regulations

Patriot HF (Mixture)

U.S. - California - Proposition 65 - Other information	This product contains crystalline silica, a chemical known to the State of California to cause cancer. For more information go to WWW.P65Warnings.ca.gov
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crystalite (14464-46-1)

U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)	Maximum allowable dose level (MADL)
Yes	No	No	No		

Component	State or local regulations
crystalite(14464-46-1)	U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) List
aluminium oxide, non-fibrous(1344-28-1)	U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) List

SECTION 16 Other information

according to 29 CFR § 1910.1200, Hazard Communication Standard (HCS 2024)

Revision date : 5/27/2026

Issue date : 3/3/2015

Other information : Report language name. English. In the event of any conflict between English and other language versions, the English version shall prevail.

Full text of hazard classes and H-statements

H335	May cause respiratory irritation
H350	May cause cancer.

Safety Data Sheet (SDS), USA

This information and recommendations set forth herein are taken from sources believed to be accurate as of the date herein, however, RHI Magnesita makes no warranty with respect to the accuracy of the information or the suitability of the recommendations, and assumes no liability to any user thereof.