



S-13

Safety Data Sheet

according to 29 CFR § 1910.1200, Hazard Communication Standard (HCS 2024)
Issue date: 11/18/2015 Revision date: 9/21/2026 Supersedes: 10/30/2024

SECTION 1 Identification

1.1. Product identifier

Product form : Article
Product name : S-13
CAS-No. : Mixture
Product code : 4916

1.2. Other means of identification

Other means of identification : Clay Graphite Fired Shape

1.3. Recommended use of the chemical and restrictions on use

Use of the substance/mixture : Refractory
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 - 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
Not classified

2.2. Label elements

This product meets the definition and criteria for an article according to OSHA 29 CFR 1910.1200 and the EU REACH 1907/2006 Article 3(3) regulations. No labeling obligation.

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
graphite	CAS-No.: 7782-42-5	10 – 30	Not classified
Coke	CAS-No.: 7440-44-0	10 – 30	Not classified
cristobalite	CAS-No.: 14464-46-1	10 – 30	Carc. 1A, H350

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

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

Potential Adverse human health effects and symptoms : Danger of serious damage to health by prolonged exposure through inhalation.
Symptoms/effects after inhalation : Dust on tear out. Danger of serious damage to health by prolonged exposure through inhalation. May cause cancer by inhalation.

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Symptoms/effects after skin contact : Irritation.
Symptoms/effects after eye contact : Dust from this product may cause eye irritation.

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.
Reactivity in case of fire : On burning (carbon monoxide - carbon dioxide).
Hazardous decomposition products in case of fire : Fire conditions may produce carbon dioxide-carbon monoxide.

5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions : Fight fire with normal precautions from a reasonable distance.
Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6 Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Do not handle until all safety precautions have been read and understood.

For non-emergency personnel

No additional information available

For emergency responders

Protective equipment : Use personal protective equipment as required.

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.
Incompatible products : Strong acids.

SECTION 8 Exposure controls/personal protection

8.1. Control parameters

graphite (7782-42-5)

USA - ACGIH® - Threshold Limit Values

ACGIH® TLV® TWA	2 mg/m ³ (Respirable fraction)
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cristobalite (14464-46-1)

USA - ACGIH® - Threshold Limit Values

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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8.2. Appropriate engineering controls

Appropriate engineering controls : Dust on tear out. Provide adequate ventilation to minimize dust concentrations.

8.3. Individual protection measures, such as personal protective equipment

Personal protective equipment:

Avoid all unnecessary exposure.

Hand protection:

Wear protective gloves.

Skin and body protection:

Safety shoes. Wear suitable protective clothing

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Respiratory protection:

Dust on tear out. Wear suitable respiratory equipment in case of insufficient ventilation

Other information:

Do not eat, drink or smoke during use.

SECTION 9 Physical and chemical properties

9.1. Basic physical and chemical properties

Physical state	: Solid
Appearance	: Solid in various shapes.
Color	: Black
Odor	: None
Odor threshold	: No data available
pH	: No data available
Melting point	: > 3000 °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	: No data available
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

On heating/burning: release of carbon monoxide - carbon dioxide.

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

graphite (7782-42-5)

LD50 oral rat	> 2000 mg/kg (OECD 423: Acute Oral Toxicity – Acute Toxic Class Method, Rat, Female, Experimental value, Oral)
LC50 Inhalation - Rat	> 2000 mg/m³ air (OECD 403: Acute Inhalation Toxicity, 4 h, Rat, Male / female, Experimental value, Inhalation (dust))

Coke (7440-44-0)

LD50 oral rat	> 5000 mg/kg (Rat, Oral)
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Skin corrosion/irritation	: Not classified
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graphite (7782-42-5)	
pH	7 (1.3 %)
cristobalite (14464-46-1)	
pH	6 – 7
Serious eye damage/irritation	: Not classified
graphite (7782-42-5)	
pH	7 (1.3 %)
cristobalite (14464-46-1)	
pH	6 – 7
Respiratory or skin sensitization	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified
Potential Adverse human health effects and symptoms	: Danger of serious damage to health by prolonged exposure through inhalation.
Symptoms/effects after inhalation	: Dust on tear out. Danger of serious damage to health by prolonged exposure through inhalation. May cause cancer by inhalation.
Symptoms/effects after skin contact	: Irritation.
Symptoms/effects after eye contact	: Dust from this product may cause eye irritation.
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
graphite (7782-42-5)	
LC50 - Fish [1]	> 100 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Danio rerio, Static system, Fresh water, Experimental value, Lethal)
EC50 - Crustacea [1]	> 100 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, Behaviour)
EC50 72h - Algae [1]	> 100 mg/l (OECD 201: Alga, Growth Inhibition Test, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, Growth rate)
EC50 72h - Algae [2]	> 100 mg/l (OECD 201: Alga, Growth Inhibition Test, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, Cell numbers)
12.2. Persistence and degradability	
S-13 (Mixture)	
Persistence and degradability	Not established.
graphite (7782-42-5)	
Persistence and degradability	Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable
cristobalite (14464-46-1)	
Persistence and degradability	Mineral, Not applicable.
Chemical oxygen demand (COD)	Not applicable

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cristobalite (14464-46-1)	
ThOD	Not applicable
BOD (% of ThOD)	Not applicable
Coke (7440-44-0)	
Persistence and degradability	Biodegradability in water: no data available.
12.3. Bioaccumulative potential	
graphite (7782-42-5)	
Bioaccumulative potential	Not bioaccumulative.
cristobalite (14464-46-1)	
Bioaccumulative potential	No data available.
Coke (7440-44-0)	
Bioaccumulative potential	Not bioaccumulative.
12.4. Mobility in soil	
cristobalite (14464-46-1)	
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.
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	
15.2. International regulations	
CANADA	
graphite (7782-42-5)	
Listed on the Canadian DSL (Domestic Substances List)	
cristobalite (14464-46-1)	
Listed on the Canadian DSL (Domestic Substances List)	
Coke (7440-44-0)	
Listed on the Canadian DSL (Domestic Substances List)	
EU-Regulations	
No additional information available	

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National regulations

No additional information available

15.3. State regulations

S-13 (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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cristobalite (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
graphite(7782-42-5)	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
cristobalite(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

SECTION 16 Other information

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

Revision date	: 9/21/2026
Issue date	: 11/18/2015
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	
H350	May cause cancer.

Safety Data Sheet (SDS), USA
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