



# S-13

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations  
Issue date: 11/18/2015 Revision date: 10/30/2024 Supersedes: 10/11/2021

### SECTION 1: Identification

#### 1.1. Identification

Product form : Article  
Product name : S-13  
CAS-No. : Mixture  
Product code : 4916  
Other means of identification : Clay Graphite Fired Shape

#### 1.2. Recommended use and restrictions on use

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

#### 1.3. Supplier

Resco Products, Inc.  
One Robinson Plaza, Suite 300  
6600 Steubenville Pike  
Pittsburgh, PA, 15205  
United States  
T 412-494-4491  
[SDS@RescoProducts.com](mailto:SDS@RescoProducts.com) - [WWW.RescoProducts.com](http://WWW.RescoProducts.com)

#### 1.4. Emergency telephone number

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

### SECTION 2: Hazard(s) identification

#### 2.1. Classification of the substance or mixture

**GHS US classification**  
Not classified

#### 2.2. GHS Label elements, including precautionary statements

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. Other hazards which do not result in classification

No additional information available

#### 2.4. Unknown acute toxicity (GHS US)

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	20 – 50	Not classified
Coke	CAS-No.: 7440-44-0	20 – 50	Not classified
crystalite	CAS-No.: 14464-46-1	10 – 20	Carc. 1A, H350

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

### SECTION 4: First-aid measures

#### 4.1. Description of 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 and 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.  
Symptoms/effects after skin contact : Irritation.  
Symptoms/effects after eye contact : Dust from this product may cause eye irritation.

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### 4.3. Immediate medical attention and special treatment, 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

#### 6.1.1. For non-emergency personnel

No additional information available

#### 6.1.2. For emergency responders

Protective equipment : Use personal protective equipment as required.

### 6.2. Environmental precautions

No additional information available

### 6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Collect spillage.

### 6.4. Reference to other sections

No additional information available

## 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 any 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

#### S-13 (Mixture)

No additional information available

#### graphite (7782-42-5)

##### USA - ACGIH - Occupational Exposure Limits

ACGIH OEL TWA	2 mg/m <sup>3</sup> (Respirable fraction)
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#### crystalite (14464-46-1)

##### USA - ACGIH - Occupational Exposure Limits

ACGIH OEL TWA	0.025 mg/m <sup>3</sup> respirable dust
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##### USA - OSHA - Occupational Exposure Limits

OSHA PEL (TWA) [1]	0.05 mg/m <sup>3</sup> respirable dust
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#### Coke (7440-44-0)

No additional information available

### 8.2. Appropriate engineering controls

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

### 8.3. Individual protection measures/Personal protective equipment

#### Hand protection:

Wear protective gloves.

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### Skin and body protection:

Safety shoes

### Respiratory protection:

Dust on tear out. Where exposure through inhalation may occur from use, respiratory protection equipment is recommended

## SECTION 9: Physical and chemical properties

### 9.1. Information on 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
Relative evaporation rate (butyl acetate=1)	: 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
Viscosity, dynamic	: No data available
Explosion limits	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available

### 9.2. Other information

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))

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### Coke (7440-44-0)

LD50 oral rat > 5000 mg/kg (Rat, Oral)

Skin corrosion/irritation : Not classified

### graphite (7782-42-5)

pH 7 (1.3 %)

### crystalite (14464-46-1)

pH 6 – 7

Serious eye damage/irritation : Not classified

### graphite (7782-42-5)

pH 7 (1.3 %)

### crystalite (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

Viscosity, kinematic : No data available

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. Toxicity

#### 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

#### graphite (7782-42-5)

Persistence and degradability Biodegradability: not applicable.

Chemical oxygen demand (COD) Not applicable

ThOD Not applicable

BOD (% of ThOD) Not applicable

#### crystalite (14464-46-1)

Persistence and degradability Mineral. Not applicable.

Chemical oxygen demand (COD) Not applicable

ThOD Not applicable

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### crystalite (14464-46-1)

BOD (% of ThOD)	Not applicable
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### Coke (7440-44-0)

Persistence and degradability	Biodegradability in water: no data available.
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### 12.3. Bioaccumulative potential

#### graphite (7782-42-5)

Bioaccumulative potential	Not bioaccumulative.
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#### crystalite (14464-46-1)

Bioaccumulative potential	No data available.
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#### Coke (7440-44-0)

Bioaccumulative potential	Not bioaccumulative.
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### 12.4. Mobility in soil

#### crystalite (14464-46-1)

Ecology - soil	No data available.
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### 12.5. Other adverse effects

No additional information available

## SECTION 13: Disposal considerations

### 13.1. Disposal methods

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. US 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)

#### crystalite (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

#### National regulations

No additional information available

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### 15.3. US 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 <a href="http://WWW.P65Warnings.ca.gov">WWW.P65Warnings.ca.gov</a>
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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

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

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Revision date : 10/30/2024

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 H-phrases

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, Resco Products, Inc. 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.