

# SAFETY DATA SHEET

## SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

### PRODUCT

**Product Name:** PENETROX™ S-4  
**Product Description:** Ferrosilicon  
**Intended Use:** Product component

### COMPANY IDENTIFICATION

**Supplier:** BURNDY LLC  
47 East Industrial Park Drive  
Manchester, NH 03109 USA

**24 Hour Emergency (INFOTRAC)** (800) 535-5053 (*US and Canada*)  
(352) 323-3500 (*International*)  
**Burndy Informational Number** (603) 647-5000

## SECTION 2 HAZARDS IDENTIFICATION

### CLASSIFICATION OF THE SUBSTANCE OR MIXTURE

#### Classification according to Regulation (EC) No. 1272/2008 (CLP)

The product is not classified as hazardous according to the Globally Harmonized System (GHS).  
The substance is not classified as hazardous according to the CLP regulation.

#### Classification according to Directive 67/548/EEC & Directive 1999/45/EC - Not applicable.

#### Information concerning particular hazards for human and environment:

The product does not have to be labeled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

#### Classification system:

The classification is in accordance with the latest editions of international substances lists, and is supplemented by information from technical literature and by information provided by the company.

### LABEL ELEMENTS

#### Label Elements According to Regulation (EC) No. 1272/2008 (CLP)

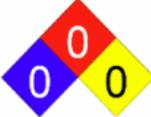
This product does not have a classification according to the CLP regulation.

The product is not classified as hazardous according to OSHA GHS regulations within the United States.

**Hazard Pictogram(s)** : Not regulated  
**Signal Word(s)** : Not regulated  
**Hazard-determining components of labelling** : None  
**Hazard Statement(s)** : Not regulated

#### Hazard description:

**WHMIS-Symbols** : None

**NFPA ratings (Scale 0-4)** :  Health = 0  
Fire = 0  
Reactivity = 0

**HMIS-ratings (Scale 0-4)** :  Health = 0  
Fire = 0  
Reactivity = 0

**HMIS Long Term Health Hazard Substances** : Substance is not listed

**OTHER HAZARDS**  
Results of PBT and vPvB assessment:

**PBT** : Not applicable  
**vPvB** : Not applicable

### SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

#### SUBSTANCES

CAS Number	Description
8049-17-0	Ferrosilicon

#### IDENTIFICATION NUMBER(S)

**EC Number** : 617-088-7

### SECTION 4 FIRST AID MEASURES

#### DESCRIPTION OF FIRST AID MEASURES

**General information** : No special measures required  
**After inhalation** : Supply fresh air ; consult doctor in case of complaints.  
**After skin contact** : Brush off loose particles from skin. Wash with soap and water. If skin irritation is experienced, consult a doctor.  
**After eye contact** : Remove contact lenses if worn. Rinse opened eye for several minutes under running water. If symptoms persists, consult a doctor.  
**After swallowing** : Rinse out mouth and then drink plenty of water. Do not induce vomiting; call for medical help immediately.



Product Name: PENETROX™ S-4  
 Revision Date: 10 June 2016 (rev A)  
 Page 4 of 10

**Information about fire- and explosion protection** : No special measures required

**CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES:**

**Requirements to be met by storerooms and receptacles** : Store in a cool location. Protect from humidity and water.

**Information about storage in one common storage facility** : Store away from oxidizing agents. Store away from foodstuffs. Do not store together with acids.

**Further information about storage conditions** : Store in cool, dry conditions in well sealed receptacles.

**Specific end use(s)** : No further relevant information available

**SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION**

**Additional information about design of technical facilities** : No further data; see item 7.

**CONTROL PARAMETERS:**

Ingredients with limit values that require monitoring at the work place:			
Ferrosilicon	8049-17-0	PEL (USA)	Long-term value: 15 (total),5 (resp.) mg/m <sup>3</sup>

**DNELs** : No further relevant information available.

**PNECs** : No further relevant information available.

**Additional information** : The lists valid during the making were used as basis

Exposure Controls		
Personal Protective Equipment:		
General Protective and hygienic measures:		
	<b>General Protective and hygienic measures</b>	The usual precautionary measure are to be adhered to when handling chemicals. Keep away from foodstuffs, beverages and feed. Wash hands before breaks and at the end of work. Immediately remove all soiled and contaminated clothing. Do not inhale dust / Smoke / mist. Avoid contact with eyes. Avoid close or long term contact with skin.
	<b>Respiratory Protection</b>	Not required under normal conditions of use. For spills, respiratory protection maybe advisable. Use suitable respiratory protective device when high concentrations are present.

	<b>Eye protection</b>	Wear safety glasses
	<b>Protection of hands</b>	Wear protective gloves.
	<b>Body protection</b>	Not required under normal conditions of use. Protection may be required for spills.
	<b>Risk management Measures</b>	No special requirements.

<b>SECTION 9</b>	<b>PHYSICAL/CHEMICAL PROPERTIES</b>
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<b>Appearance</b>	: Granulates
<b>Ordor</b>	: Odourless
<b>Melting Point(°C) / Freezing Point (°C)</b>	: 4892 °F / 2700°C
<b>Flash Point(C)</b>	: No data
<b>Auto Ignition temperature</b>	: Not available
<b>Explosive properties</b>	: None
<b>Flammability (Solids, Gas)</b>	: Not available
<b>Evaporation Rate</b>	: N/A
<b>Vapour Density (Air=1)</b>	: N/A
<b>Solubility (Water)</b>	: Insoluble
<b>Partition Coefficient (N-Octanol/Water)</b>	: Not available
<b>Color</b>	: Grey
<b>Ordor Threshold (ppm)</b>	: Not available
<b>Boiling Point/Boiling range (°C)</b>	: Not available
<b>Explosive Limit Ranges</b>	: Not available
<b>Decomposition Temperature (°C)</b>	: Not available
<b>Oxidizing Properties</b>	: Not available
<b>Ph (Value)</b>	: Not available
<b>Vapour Pressure(mm Hg)</b>	: Not available
<b>Density (g/ml)</b>	: 6,7 g/cm <sup>3</sup>
<b>Solubility (Other)</b>	: Not available
<b>Viscosity (mPa.s)</b>	: Not available

**OTHER INFORMATION:**

<b>Volatile Organic Chemical (VOC) Content</b>	: Not available
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<b>SECTION 10</b>	<b>STABILITY AND REACTIVITY</b>
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**Reactivity**

- Chemical Stability** : No decomposition if used according to specifications.
- Thermal Decomposition/  
Conditions to be avoided**
- Possibility of hazardous reactions** : Reacts with strong acids and alkali. Reacts with strong Oxidising agents.
- Conditions to avoid** : Store away from oxidising agents. Moisture.
- Incompatible Materials** : No further relevant information available.
- Hazardous decomposition product(s)** : Possible in traces.

<b>SECTION 11</b>	<b>TOXICOLOGICAL INFORMATION</b>
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**INFORMATION ON TOXICOLOGICAL EFFECT**

**Primary irritant effect:**

- On the skin** : Slight irritant effect on skin and mucous membranes
- On the eye** : Slight irritant effect on eyes
- Sensitisation** : No sensitizing effect known.
- Additional toxicological information** : When used and handled according to specifications, the product does not have any harmful effects to our experience and the information provided to us. The substance is not subject to classification according to the latest version of the EU lists.
- Acute effects (acute toxicity, irritation and corrosivity)** : Inhalation may cause irritation to the respiratory system.
- Repeated dose toxicity** : Repeated exposure may result in skin sensitivity

<b>SECTION 12</b>	<b>ECOLOGICAL INFORMATION</b>
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- Acute toxicity** : No further relevant information available.
- Persistence and degradability** : No further relevant information available.
- Bio accumulative potential** : No further relevant information available.
- Mobility in soil** : No further relevant information available.

## ADDITIONAL ECOLOGICAL INFORMATION

**General notes** : Not known to be hazardous to water.

## RESULT OF PBT AND vPvB ASSESSMENT

**PBT** : Not applicable

**vPvB** : Not applicable

**Other adverse effects** : No further relevant information available.

## SECTION 13 DISPOSAL CONSIDERATIONS

**Waste treatment method recommendation** : Smaller quantities can be disposed of with household waste. Contact waste processors for recycling information. The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all relevant local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and non-hazardous wastes. Residual materials should be treated as hazardous.

**Un cleaned packaging recommendation** : Disposal must be made according to official regulations

## SECTION 14 TRANSPORTATION

### Land Transport (ADR/RID) (c)(d)

UN Number : None  
Proper Shipping Name : Not classified as dangerous for transport.  
Transport Hazard Class(es) : None  
Packing Group : None  
Hazard Label(s) : None  
Environmental Hazards : None  
Special Precautions For User : None

### Land Transport (within USA) (b)(d)

UN number : None  
Proper Shipping Name : Not classified as dangerous for transport.  
Transport Hazard Class(es) : None  
Packing Group : None  
Hazard Label(s) : None  
Environmental Hazards : None  
Special Precautions For User : None

### Sea Transport (IMDG) (c)

UN number : None  
Proper Shipping Name : Not classified as dangerous for transport.  
Transport Hazard Class(es) : None

Product Name: PENETROX™ S-4  
Revision Date: 10 June 2016 (rev A)  
Page 8 of 10

Packing Group : None  
Marine Pollutant : None  
Special Precautions For User : None

**Air Transport (ICAO/IATA) (c)(d)**

UN number : None  
Proper Shipping Name : Not classified as dangerous for transport.  
Transport Hazard Class(es) : None  
Packing Group : None  
Marine Pollutant : None  
Special Precautions For User : None

(b)-OMR-D may be applicable within the USA for package sizes less than 30Kg.  
(c)-Consult with transport provider.  
(d)-Check relevant regulations for special provisions.

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

<b>SECTION 15</b>	<b>REGULATORY INFORMATION</b>
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**SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS/LEGISLATIONS SPECIFIC FOR THE SUBSTANCE OR MIXTURE**

**USA  
SARA**

Section 355 (Extremely hazardous substances) : Substance is not listed.  
Section 313 (Specific toxic chemical listings) : Substance is not listed.  
TSCA (Toxic Substance Control Act) : Not all ingredients listed.

**Proposition 65 (California)**

Chemicals known to cause cancer. : Substance is not listed.  
Chemicals known to cause reproductive toxicity for females. : Substance is not listed.  
Chemicals known to cause reproductive toxicity for males. : Substance is not listed.  
Chemicals known to cause developmental toxicity. : Substance is not listed.

**Carcinogenic Categories**

EPA (Environmental Protection Agency) : Substance is not listed.  
IARC (International Agency for Research on Cancer) : Substance is not listed.

**TLV (Threshold Limit Value established by ACGIH)** : Substance is not listed.

Product Name: PENETROX™ S-4  
Revision Date: 10 June 2016 (rev A)  
Page 9 of 10

**MAK (German Maximum Workplace Concentration)** : Substance is not listed.

NIOSH-Ca (National Institute for Occupational Safety and Health) : Substance is not listed.

#### Canada

Canadian Domestic Substances List (DSL) : Substance is listed.

Canadian Ingredient Disclosure List (Limit 0.1%) : Substance is not listed.

Canada Ingredient Disclosure List (Limit 1%) : Substance is listed.

#### OTHER REGULATIONS, LIMITATIONS AND PROHIBITIVE REGULATIONS

Substance of very high concern (SVHC) according to REACH, Article 57 : Substance is not listed.

**Chemical Safety Assessment** : A Chemical Safety Assessment has not been carried out.

<b>SECTION 16</b>	<b>OTHER INFORMATION</b>
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This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

#### ADDITIONAL INFORMATION:

- The accumulation of airborne dust particles may lead to health and safety risks in some cases. The use of good industrial practices will mitigate this risk.
- The health risks from inhalation of dust particles vary; this is due to particle concentration, exposure length, number of exposure and type of particles inhaled. Please read Section 2,4,6,7 and 8 of the SDS to understand these potential risks. Wear personal protective equipment and follow storage and handling procedures to maintain a safe work place.
- In rare instances, combustible dusts may represent a potential explosion hazard when airborne, this hazard is often associated with organic dust such as foodstuffs and coal, but may also occur with mineral products. While the majority of our products would be considered non-combustible, the overall airborne environment should be considered when determining the need for mitigation from the potential hazard. Consult recognized experts when necessary in order to determine any possible hazard. Please read the SDS for specific information concerning these hazards, and contact us with any further questions. We appreciate your continued business.

#### ABBREVIATIONS AND ACRONYMS:

**ADR** : Accord européen sur le transport des marchandises dangereuses par route  
(European Agreement concerning the International Carriage of Dangerous Goods by Road)

**IMDG** : International Maritime Code for Dangerous Goods

**DOT** : US Department of Transportation

**IATA** : International Air Transportation Association

Product Name: PENETROX™ S-4  
Revision Date: 10 June 2016 (rev A)  
Page 10 of 10

- GHS** : Globally harmonised System of Classification and Labelling of Chemicals
- ACGIH** : American Conference of Governmental Industrial Hygienists
- EINECS** : European Inventory of Governmental Industrial Hygienists.
- CAS** : Chemical Abstract Service (division of the American Chemical Society)
- NFPA** : National Fire Protection Association (USA)
- HMIS** : Hazardous Material Identification System (USA)
- DNEL** : Derived No-Effect Level (REACH)
- PNEC** : Predicted No-Effect Concentration (REACH)

**THIS SAFETY DATA SHEET CONTAINS THE FOLLOWING REVISIONS:**

<b>Revision Date</b>	<b>Description</b>	<b>Sections Affected</b>
02/18/2011	MSDS version written	All
02/22/2011	Updates	All
03/09/2011	Updates	All
06/10/2016	GHS version written	1-16

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