

## 1. Identification

<b>Product identifier</b>	<b>OREAS 70B</b>
<b>Other means of identification</b>	
<b>Product code</b>	Q0203078
<b>Recommended use</b>	Used as a check standard for soil and geochem calibrations.
<b>Recommended restrictions</b>	None known.
<b>Manufacturer/Importer/Supplier/Distributor information</b>	
<b>Company name</b>	Evident Scientific
<b>Address</b>	48 Woerd Avenue Waltham, MA 02453 USA
<b>Telephone number</b>	+1-781-419-3900
<b>Emergency telephone number</b>	CHEMTREC  US: +1-800-424-9300, International: +1-703-527-3887

## 2. Hazard(s) identification

<b>Physical hazards</b>	Not classified.	
<b>Health hazards</b>	Sensitization, skin	Category 1
	Germ cell mutagenicity	Category 2
	Carcinogenicity	Category 1A
	Specific target organ toxicity, repeated exposure	Category 1
<b>Environmental hazards</b>	Hazardous to the aquatic environment, acute hazard	Category 3
	Hazardous to the aquatic environment, long-term hazard	Category 3
<b>OSHA defined hazards</b>	Not classified.	
<b>Label elements</b>		



<b>Signal word</b>	Danger
<b>Hazard statement</b>	May cause an allergic skin reaction. Suspected of causing genetic defects. May cause cancer. Causes damage to organs through prolonged or repeated exposure. Harmful to aquatic life with long lasting effects.
<b>Precautionary statement</b>	
<b>Prevention</b>	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe dust. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Contaminated work clothing must not be allowed out of the workplace. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection.
<b>Response</b>	If on skin: Wash with plenty of water. If exposed or concerned: Get medical advice/attention. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse.
<b>Storage</b>	Store locked up.
<b>Disposal</b>	Dispose of contents/container in accordance with local/regional/national/international regulations.

**Hazard(s) not otherwise classified (HNOC)** None known.

**Supplemental information** None.

### 3. Composition/information on ingredients

#### Mixtures

Chemical name	CAS number	%
High grade massive nickel sulfide ore and barren ultramafic material	-	100

#### Constituents

Chemical name	CAS number	%
Quartz	14808-60-7	-
Nickel sulfide	16812-54-7	-

**Composition comments** The hazard evaluation is based on the content of nickel sulfide.

### 4. First-aid measures

**Inhalation** Move to fresh air. Call a physician if symptoms develop or persist.

**Skin contact** Remove contaminated clothing immediately and wash skin with soap and water. In case of eczema or other skin disorders: Seek medical attention and take along these instructions.

**Eye contact** Do not rub eyes. Rinse with water. Get medical attention if irritation develops and persists.

**Ingestion** Rinse mouth. Get medical attention if symptoms occur.

**Most important symptoms/effects, acute and delayed** Dusts may irritate the respiratory tract, skin and eyes. May cause an allergic skin reaction. Dermatitis. Rash. Prolonged exposure may cause chronic effects.

**Indication of immediate medical attention and special treatment needed** Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.

**General information** IF exposed or concerned: Get medical advice/attention. If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before reuse.

### 5. Fire-fighting measures

**Suitable extinguishing media** Use fire-extinguishing media appropriate for surrounding materials.

**Unsuitable extinguishing media** None known.

**Specific hazards arising from the chemical** None known.

**Special protective equipment and precautions for firefighters** Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

**Fire fighting equipment/instructions** Use water spray to cool unopened containers.

**Specific methods** Use standard firefighting procedures and consider the hazards of other involved materials.

**General fire hazards** The product is non-combustible.

### 6. Accidental release measures

**Personal precautions, protective equipment and emergency procedures** Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Do not breathe dust. Use a NIOSH/MSHA approved respirator if there is a risk of exposure to dust/fume at levels exceeding the exposure limits. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

**Methods and materials for containment and cleaning up**

Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air). Minimize dust generation and accumulation. Collect dust using a vacuum cleaner equipped with HEPA filter. Prevent product from entering drains. Stop the flow of material, if this is without risk.

Large Spills: Wet down with water and dike for later disposal. Shovel the material into waste container. Following product recovery, flush area with water.

Small Spills: Sweep up or vacuum up spillage and collect in suitable container for disposal.

Never return spills to original containers for re-use. Put material in suitable, covered, labeled containers. For waste disposal, see section 13 of the SDS.

**Environmental precautions**

Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.

**7. Handling and storage****Precautions for safe handling**

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Minimize dust generation and accumulation. Provide appropriate exhaust ventilation at places where dust is formed. Do not breathe dust. Avoid contact with eyes, skin, and clothing. When using, do not eat, drink or smoke. Should be handled in closed systems, if possible. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Avoid release to the environment. Observe good industrial hygiene practices.

**Conditions for safe storage, including any incompatibilities**

Store locked up. Store in tightly closed container. Store in a well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS).

**8. Exposure controls/personal protection****Occupational exposure limits****US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)**

Constituents	Type	Value	Form
Nickel sulfide (CAS 16812-54-7)	PEL	1 mg/m <sup>3</sup>	
Quartz (CAS 14808-60-7)	PEL	0.05 mg/m <sup>3</sup>	Respirable dust.

**US. OSHA Table Z-3 (29 CFR 1910.1000)**

Constituents	Type	Value	Form
Quartz (CAS 14808-60-7)	TWA	0.1 mg/m <sup>3</sup>	Respirable.
		2.4 mppcf	Respirable.

**US. ACGIH Threshold Limit Values**

Constituents	Type	Value	Form
Nickel sulfide (CAS 16812-54-7)	TWA	0.2 mg/m <sup>3</sup>	Inhalable fraction.
Quartz (CAS 14808-60-7)	TWA	0.025 mg/m <sup>3</sup>	Respirable fraction.

**US. NIOSH: Pocket Guide to Chemical Hazards**

Constituents	Type	Value	Form
Nickel sulfide (CAS 16812-54-7)	TWA	0.015 mg/m <sup>3</sup>	
Quartz (CAS 14808-60-7)	TWA	0.05 mg/m <sup>3</sup>	Respirable dust.

**Biological limit values**

No biological exposure limits noted for the ingredient(s).

**Appropriate engineering controls**

Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. If material is ground, cut, or used in any operation which may generate dusts, use appropriate local exhaust ventilation to keep exposures below the recommended exposure limits.

**Individual protection measures, such as personal protective equipment****Eye/face protection**

Use tight fitting goggles if dust is generated.

**Skin protection****Hand protection**

Wear appropriate chemical resistant gloves.

<b>Skin protection</b>	
<b>Other</b>	Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.
<b>Respiratory protection</b>	Wear respirator with dust filter. Use a NIOSH/MSHA approved respirator if there is a risk of exposure to dust/fume at levels exceeding the exposure limits.
<b>Thermal hazards</b>	Wear appropriate thermal protective clothing, when necessary.
<b>General hygiene considerations</b>	Observe any medical surveillance requirements. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Contaminated work clothing should not be allowed out of the workplace.

## 9. Physical and chemical properties

### Appearance

<b>Physical state</b>	Solid.
<b>Form</b>	Powder.
<b>Color</b>	Not available.
<b>Odor</b>	Not available.
<b>Odor threshold</b>	Not available.
<b>pH</b>	Not available.
<b>Melting point/freezing point</b>	Not available.
<b>Initial boiling point and boiling range</b>	Not available.
<b>Flash point</b>	Not applicable.
<b>Evaporation rate</b>	Not applicable.
<b>Flammability (solid, gas)</b>	This material will not burn.

### Upper/lower flammability or explosive limits

<b>Flammability limit - lower (%)</b>	Not available.
<b>Flammability limit - upper (%)</b>	Not available.
<b>Explosive limit - lower (%)</b>	Not available.
<b>Explosive limit - upper (%)</b>	Not available.
<b>Vapor pressure</b>	Not applicable.
<b>Vapor density</b>	Not applicable.
<b>Relative density</b>	Not available.
<b>Solubility(ies)</b>	
<b>Solubility (water)</b>	Insoluble in water.
<b>Partition coefficient (n-octanol/water)</b>	Not available.
<b>Auto-ignition temperature</b>	Not applicable.
<b>Decomposition temperature</b>	Not available.
<b>Viscosity</b>	Not available.
<b>Other information</b>	
<b>Explosive properties</b>	Not explosive.
<b>Oxidizing properties</b>	Not oxidizing.

## 10. Stability and reactivity

<b>Reactivity</b>	The product is stable and non-reactive under normal conditions of use, storage and transport.
<b>Chemical stability</b>	Material is stable under normal conditions.
<b>Possibility of hazardous reactions</b>	No dangerous reaction known under conditions of normal use.
<b>Conditions to avoid</b>	Contact with incompatible materials.
<b>Incompatible materials</b>	Powerful oxidizers. Chlorine.

**Hazardous decomposition products** No hazardous decomposition products are known.

## 11. Toxicological information

### Information on likely routes of exposure

**Inhalation** Dust may irritate respiratory system. Chronic lung disease (silicosis) and/or lung cancer may result from prolonged/repeated breathing of the dust of this material.

**Skin contact** Dust or powder may irritate the skin. May cause an allergic skin reaction.

**Eye contact** Dust may irritate the eyes.

**Ingestion** Expected to be a low ingestion hazard.

**Symptoms related to the physical, chemical and toxicological characteristics** Dusts may irritate the respiratory tract, skin and eyes. May cause an allergic skin reaction. Dermatitis. Rash.

### Information on toxicological effects

**Acute toxicity** Not expected to be acutely toxic.

**Skin corrosion/irritation** Prolonged skin contact may cause temporary irritation.

**Serious eye damage/eye irritation** Direct contact with eyes may cause temporary irritation.

**Respiratory or skin sensitization**

**Respiratory sensitization** Not a respiratory sensitizer.

**Skin sensitization** May cause an allergic skin reaction.

**Germ cell mutagenicity** Suspected of causing genetic defects.

**Carcinogenicity** May cause cancer.

#### IARC Monographs. Overall Evaluation of Carcinogenicity

Nickel sulfide (CAS 16812-54-7) 1 Carcinogenic to humans.  
Quartz (CAS 14808-60-7) 1 Carcinogenic to humans.

#### NTP Report on Carcinogens

Nickel sulfide (CAS 16812-54-7) Known To Be Human Carcinogen.  
Quartz (CAS 14808-60-7) Known To Be Human Carcinogen.

#### OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Quartz (CAS 14808-60-7) Cancer

**Reproductive toxicity** This product is not expected to cause reproductive or developmental effects.

**Specific target organ toxicity - single exposure** Not classified.

**Specific target organ toxicity - repeated exposure** Causes damage to organs through prolonged or repeated exposure.

**Aspiration hazard** Not an aspiration hazard.

**Chronic effects** Causes damage to organs through prolonged or repeated exposure.

## 12. Ecological information

**Ecotoxicity** Harmful to aquatic life with long lasting effects.

**Persistence and degradability** No data is available on the degradability of any ingredients in the mixture.

**Bioaccumulative potential** No data available.

**Mobility in soil** No data available.

**Other adverse effects** No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

## 13. Disposal considerations

**Disposal instructions** Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.

**Local disposal regulations** Dispose in accordance with all applicable regulations.

**Hazardous waste code** The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

**Waste from residues / unused products** Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

**Contaminated packaging** Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

## 14. Transport information

### DOT

Not regulated as dangerous goods.

### IATA

Not regulated as dangerous goods.

### IMDG

Not regulated as dangerous goods.

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** Not applicable.

## 15. Regulatory information

**US federal regulations** This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

### TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

### CERCLA Hazardous Substance List (40 CFR 302.4)

Nickel sulfide (CAS 16812-54-7) Listed.

### SARA 304 Emergency release notification

Not regulated.

### OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Quartz (CAS 14808-60-7) Cancer  
lung effects  
immune system effects  
kidney effects

### Superfund Amendments and Reauthorization Act of 1986 (SARA)

#### SARA 302 Extremely hazardous substance

Not listed.

**SARA 311/312 Hazardous chemical** Yes

**Classified hazard categories** Respiratory or skin sensitization  
Germ cell mutagenicity  
Carcinogenicity  
Specific target organ toxicity (single or repeated exposure)

#### SARA 313 (TRI reporting)

Chemical name	CAS number	% by wt.
Nickel sulfide	16812-54-7	-

### Other federal regulations

#### Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Nickel sulfide (CAS 16812-54-7)

#### Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

**Safe Drinking Water Act (SDWA)** Not regulated.

### US state regulations

#### US. Massachusetts RTK - Substance List

Quartz (CAS 14808-60-7)

#### US. New Jersey Worker and Community Right-to-Know Act

Nickel sulfide (CAS 16812-54-7)

Quartz (CAS 14808-60-7)

## US. Pennsylvania Worker and Community Right-to-Know Law

Nickel sulfide (CAS 16812-54-7)

Quartz (CAS 14808-60-7)

## US. Rhode Island RTK

Nickel sulfide (CAS 16812-54-7)

Quartz (CAS 14808-60-7)

## California Proposition 65



**WARNING:** This product can expose you to chemicals including Quartz (SiO<sub>2</sub>), which is known to the State of California to cause cancer. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

## California Proposition 65 - CRT: Listed date/Carcinogenic substance

Nickel sulfide (CAS 16812-54-7)

Listed: May 7, 2004

Quartz (CAS 14808-60-7)

Listed: October 1, 1988

## US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))

Nickel sulfide (CAS 16812-54-7)

Quartz (CAS 14808-60-7)

## 16. Other information, including date of preparation or last revision

<b>Issue date</b>	12-March-2019
<b>Revision date</b>	22-November-2022
<b>Version #</b>	02
<b>Further information</b>	HMIS® is a registered trade and service mark of the American Coatings Association (ACA). E - Safety Glasses, Gloves, Dust Respirator
<b>HMIS® ratings</b>	Health: 3* Flammability: 0 Physical hazard: 0 Personal protection: E
<b>Disclaimer</b>	Evident Scientific cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available.