

Trade name: TIMREX Natural Graphite  
Version: 1.0.3 / USA

Status: 11.07.2007

## 1.) Identification of the substance/preparation and of the company/undertaking

### Identification of the substance or preparation

#### Trade name

**TIMREX Natural Graphite**

### Company/undertaking identification

#### Address

TIMCAL AG

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CH-6743 Bodio (Switzerland)

Telephone no. +41 91 873 20 10

Fax no. +41 91 873 20 19

### Information provided by / telephone

Technological Development

### Emergency telephone

For Chemical Emergency ONLY (spill, leak, fire, exposure or accident), call CHEMTREC at +1 800 424 9300.

For ALL other inquiries about this product, call Timcal at +41 91 873 20 10 (Monday - friday: 7.30 - 12.00, 13.15 - 17.15 h).

### Manufacturer

#### Address

TIMCAL CANADA INC.  
990, rue Fernand-Poitras  
Terrebonne (Quebec)  
Canada J6Y 1V1

Telephone no. +1 450 6229191

Fax no. +1 450 6228692

## 2.) Hazards identification

### Potential Health Effects

#### Eye

May cause eye irritation.

#### Skin

May cause skin irritation.

#### Inhalation

May cause respiratory tract irritation.

#### Ingestion

No hazard in normal industrial use.

#### Cancer

Natural Graphite may contain impurities of 1 - 3 % crystalline silica (quartz, CAS 14808-60-7) which is listed by IARC as Group 1 carcinogen and by ACGIH as A2 (suspected human carcinogen).

## 3.) Composition / information on ingredients

### Chemical characterization

Natural graphite powder

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**Substance / product identification**CAS no. 7782-42-5  
Molecular weight 12.01  
Formula C1**Hazardous ingredients****QUARTZ**CAS no. 14808-60-7  
Concentration > 0 < 3 %-b.w.**4.) First aid measures****General information**

In case of persisting adverse effects, consult a physician. Remove contaminated clothing and shoes immediately, and launder thoroughly before reusing.

**After inhalation**

Remove from exposure. Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult give Oxygen. Get medical attention.

**After skin contact**

Wash with soap and water.

**After eye contact**

Hold eyelids apart and flush eyes with plenty of water for at least 15 minutes.

**After ingestion**

Rinse mouth thoroughly with water. Seek medical advice immediately. Never give anything by mouth to an unconscious person.

**5.) Firefighting measures****Suitable extinguishing media**

Graphite is difficult to combust. Extinguishing measures to suit surroundings.

**Special exposure hazards arising from the substance or preparation itself, its combustion products or from resulting gases**

In the event of fire, the following can be released:

Carbon monoxide (CO)

Carbon dioxide (CO<sub>2</sub>)

**Special protective equipment for firefighting**

As in any fire, wear self-contained breathing apparatus pressure - demand, MSHA/ NIOSH (approved or equivalent) and full protective gear.

**6.) Accidental release measures****Personal precautions**

Refer to protective measures listed in sections 7 and 8. Avoid contact with skin, eyes and clothing.

Ensure adequate ventilation. Avoid dust formation. High risk of slipping due to leakage/spillage of product.

**Environmental precautions**

Do not discharge into the drains/surface waters/groundwater.

**Methods for cleaning up/taking up**

Pick up mechanically. Send in suitable containers for recovery or disposal.

**7.) Handling and storage****Handling****Advice on safe handling**

Provide good ventilation of working area (local exhaust ventilation if necessary). If workplace exposure limits are exceeded, respiratory protection approved for this particular job must be worn.

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**Advice on protection against fire and explosion**

Dust can form an explosive mixture with air. Take precautionary measures against static charges. Keep away from sources of heat and ignition.

**Storage**

**Requirements for storage rooms and vessels**

Containers which are opened must be carefully resealed and kept upright to prevent leakage. Always keep in containers of same material as the original one.

**Further information on storage conditions**

Keep container tightly closed and dry.

**8.) Exposure controls / personal protection**

**Exposure limit values**

**QUARTZ**

CAS no. 14808-60-7  
EC no. 238-878-4

**LIMITS FOR AIR CONTAMINANTS (OSHA)**

Silica, crystalline quartz  
respirable dust

**ACGIH**

Silica, Crystalline: a-quartz  
Respirable fraction  
TWA 0.025 mg/m<sup>3</sup>

**GRAPHITE**

CAS no. 7782-42-5  
EC no. 231-955-3

**ACGIH**

Graphite (all forms except graphite fibers)  
TWA 2 mg/m<sup>3</sup>

**LIMITS FOR AIR CONTAMINANTS (OSHA)**

Graphite, natural  
respirable dust  
TWA 15 ml/m<sup>3</sup>

**Personal protective equipment**

**Respiratory protection**

A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use.

**Hand protection**

Wear appropriate gloves to prevent skin exposure. Before use, the protective glove should be tested in any case for its specific work-station suitability (i.e. mechanical resistance, product compatibility and antistatic properties). Adhere to the manufacturer's instructions and information relating to the use, storage, care and replacement of protective gloves. Protective gloves shall be replaced immediately when physically damaged or worn. Design operations thus to avoid permanent use of protective gloves. The glove(s) listed below may provide protection against permeation. Gloves of other chemically resistant materials may not provide adequate protection.  
Appropriate Material rubber

**Eye protection**

Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133.

**Skin protection**

Wear appropriate clothing to minimize contact with skin.

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## General protective and hygiene measures

Do not eat, drink or smoke during work time. Keep away from foodstuffs and beverages. Avoid contact with eyes and skin. Remove soiled or soaked clothing immediately. Wash hands before breaks and after work. Do not inhale dust. Hold eye wash fountain available.

## 9.) Physical and chemical properties

### General information

Form	powder
Color	grey to black
Odor	odorless

### Important health, safety and environmental information

#### Changes in physical state

Type	Melting point		
Value	appr.	3500	°C

#### Flash point

Remarks	not applicable
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#### Ignition temperature

Value	>	600	°C
Reference substance	dispersed dust cloud		
Value	>	365	°C
Reference substance	deposited dust		

#### Vapor pressure

Value	<	0,01	mbar
Reference temperature	20	°C	

#### Density

Value	2,1	- 2,3	g/cm <sup>3</sup>
Reference temperature	25	°C	

#### Bulk density

Value	70	- 720	kg/m <sup>3</sup>
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#### Solubility in water

Value	<	0,001	g/l
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#### Other information

Flammability BZ1: not burning (100 °C), source of ignition: glowing platinum wire, 1000 °C approx.  
Impact sensitivity: not impact sensitive

## 10.) Stability and reactivity

### Materials to avoid

Fluorine; Chlorine trifluoride

### Hazardous decomposition products

No hazardous decomposition products known.

## 11.) Toxicological information

### Acute toxicity

#### Acute oral toxicity

LD50	>	2000	mg/kg
Species	rat		
Reference substance	Graphite		
Method	OECD 401		

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## Irritant/corrosive effects

### Irritant effect on skin

Species	rabbit
Reference substance	Graphite
Duration of exposure	4 h
Evaluation	non-irritant
Method	OECD 404

### Irritant effect on eyes

Species	rabbit
Reference substance	Graphite
Evaluation	slightly irritant
Method	OECD 405

## Effects after repeated or prolonged exposition (subacute, subchronic, cronic)

### Carcinogenicity

Remarks	Natural Graphite may contain impurities of < 1 - 3 % crystalline silica (quartz, CAS 14808-60-7) which is listed by IARC as Group 1 carcinogen and by ACGIH as A2 (suspected human carcinogen).
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### Experience in practice

Contact with skin and eyes may lead to mechanical irritation.  
Inhalation of dusts may irritate the respiratory tract.

## 12.) Ecological information

### Persistence and degradability

#### Biodegradability

Evaluation	not degradable
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## 13.) Disposal considerations

### Product

Dispose in accordance with federal, state and local regulations.

## 14.) Transport information

### Other information

The product is not defined under USDOT, IMDG, GGVSee, or ICAO/IATA regulations as a hazardous material.

Canada: The product is not defined under Transport Dangerous Goods Directorate regulations as a hazardous material.

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**15.) Regulatory information****Regulations****US Federal Regulations****TSCA (Toxic Substances Control Act)**

Following ingredients are listed:

CAS-No. 7782-42-5, 14808-60-7

**Clean Air Act:**

None of the ingredients is listed.

**Clean Water Act (CWA):**

None of the ingredients is listed.

**OSHA: Hazardous by definition of Hazard Communication Standard ( 29 CFR 1910.1200, Appendix A):**

Following ingredients are Hazardous by definition of Hazard Communication Standard:

CAS-No. 14808-60-7

**SARA Section 302 (RQ):**

None of the ingredients is listed.

**SARA HAZARD CATEGORY (Section 311/312)**

Chronic Health Hazard

CAS-No. 14808-60-7

**SARA Section 313 INFORMATION:**

None of the ingredients is listed.

**HAPS (Hazardous Air Pollutants):**

None of the ingredients is listed.

**IARC**

Following ingredients are listed in Group 1:

CAS-No. 14808-60-7

**State Regulations****New Jersey Worker and Community Right to Know Act.**

Following ingredients are listed:

CAS-No. 14808-60-7

**California Proposition 65.**

Following ingredients are listed:

CAS-No. 14808-60-7 Silica

**Pennsylvania HAZARDOUS SUBSTANCE LIST**

Following ingredients are listed:

CAS-No. 7782-42-5, 14808-60-7

**Canada Federal Regulations****DSL/NDSL (Canada)**

Listed on DSL inventory.

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**Workplace Hazardous Materials Information System (WHMIS) - Canada**

This product had been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

WHMIS Classification: D2A

**National Pollutant Release Inventory - Appendix 1 - Canada.**

None of the ingredients is listed.

**National Pollutant Release Inventory - Appendix 2 - Canada.**

None of the ingredients is listed.

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**National regulations****Other regulations, restrictions and prohibition regulations**

The product is listed on the following inventories:  
European Inventory of Existing Chemical Substances (EINECS)  
Australian Inventory of Chemical Substances (AICS)  
Korea (KECI, Nr. KE-18101)  
Philippines Inventory of Chemicals and Chemical Substances (PICCS)  
Toxic Substances Control Act (TSCA)  
Domestic Substance List, DSL (Canada)  
Inventory of Existing Chemical Substances Manufactured or Imported in China (IECSC)  
New Zealand: not subject to the provisions of the HSNO Act.  
MITI/ENCS (Japan)

**16.) Other information****Other information**

Abbreviations:

ACGIH American Conference of Governmental Hygienics  
CAS Chemical Abstracts Service  
HAPS Hazardous Air Pollutants  
HMIS Hazardous Material Identification System  
IARC International Agency for Research on Cancer  
IDLH Immediate Dangerous to Life and Health  
LEL Lower Explosion Limit  
NTP National Toxicology Program  
OEL Occupational Exposure Limit  
OSHA Occupational Safety and Health Administration  
PEL Permissible Exposure Limit  
PPE Personal Protection Equipment  
SARA Superfund Amendments and Reauthorization Act  
STEL Short-Term Exposure Level (15 minutes)  
TWA Time-Weighted Average (8 hours)  
UEL Upper Explosion Limit  
VOC Volatile Organic Compounds  
WEEL Workplace Environmental Exposure Level  
Canadian Abbreviations:  
DSL Domestic Substance List  
NDSL Non-Domestic Substance List  
NPRI National Pollutant Release Inventory  
TDG Transport Dangerous Goods Directorate  
WHMIS Workplace Hazardous Materials Information System

**Department issuing safety data sheet**

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This information is based on our present state of knowledge. However, it should not constitute a guarantee for any specific product properties and shall not establish a legally valid relationship.