

SAFETY DATA SHEET

HCS-2012 APPENDIX D TO §1910.1200

Version 1
Product Name TIMREX PP44, PG44

Issue Date 27-Apr-2016
Revision date 27-Apr-2016

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product identifier

Product Name TIMREX PP44, PG44

Other means of identification

Synonyms Graphite

Recommended use of the chemical and restrictions on use

Recommended Use Electrical and thermal conductive additive
Friction modifier
Carbon carrier
Lubricant
Refractory

Uses advised against No information available

Details of the supplier of the safety data sheet

Supplier Imerys Graphite & Carbon Switzerland Ltd.
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Emergency telephone number

For Hazardous Materials [or Dangerous Goods] Incident
Spill, Leak, Fire, Exposure, or Accident
Call CHEMTREC Day or Night
Within USA and Canada: 1-800-424-9300
Outside USA and Canada: +1 703-741-5970 (collect calls accepted)

2. HAZARDS IDENTIFICATION

GHS Classification

Not classified

Label elements

Symbols/Pictograms None
Signal word None
Hazard Statements Not classified.
Precautionary Statements
Prevention None.
Response None.
Storage None.
Disposal None.

Hazards not otherwise classified (HNOC)

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

Unknown acute toxicity

No information available

3. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Chemical nature</u>	Substance	
Chemical Name	CAS No	Weight-%
Graphite	7782-42-5	>93

*Impurities crystalline silica (CAS #: 14808-60-7) <0.1%

*Hazard statement: Natural graphite may contain crystalline silica, variety quartz. This substance is not admixed with graphite, but is a naturally occurring mineral impurity that is intimately associated with the graphite. In most cases this silica is not in respirable form unless the graphite is very finely divided. IARC Monograph Vol. 68, 1997 concludes that there is sufficient evidence that inhaled crystalline silica causes cancer in human. IARC classification: group 1.

4. FIRST AID MEASURES**Description of first aid measures**

General advice	If symptoms persist, call a physician. Remove contaminated clothing and shoes. Wash contaminated clothing before reuse.
Inhalation	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention if you feel unwell.
Skin Contact	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Wash contaminated clothing before reuse. If skin irritation persists, call a physician.
Eye contact	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.
Ingestion	Rinse mouth. Get medical attention. Never give anything by mouth to an unconscious person.

Most important symptoms and effects, both acute and delayed

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

Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

5. FIRE-FIGHTING MEASURES**Extinguishing media**

Suitable extinguishing media Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Unsuitable extinguishing media Do not scatter spilled material with high pressure water streams.

Specific hazards arising from the chemical

Thermal decomposition can lead to release of irritating and toxic gases and vapors
Carbon oxides (COx)

Protective equipment and precautions for firefighters

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, protective equipment and emergency procedures

Ensure adequate ventilation, especially in confined areas. Evacuate personnel to safe areas. Use personal protection recommended in Section 8. Avoid contact with skin, eyes or clothing. Do not touch or walk through spilled material. Remove all sources of ignition. Avoid creating dust.

Methods and material for containment and cleaning up

Prevent further leakage or spillage if safe to do so. Do not dry sweep dust. Wet dust with water before sweeping or use a vacuum to collect dust. Take up mechanically, placing in appropriate containers for disposal.

7. HANDLING AND STORAGE

Precautions for safe handling

Handle in accordance with good industrial hygiene and safety practice. Ensure adequate ventilation, especially in confined areas. Use personal protection recommended in Section 8. Do not eat, drink or smoke when using this product. Avoid contact with skin, eyes or clothing. Remove contaminated clothing and shoes. Wash contaminated clothing before reuse. Wash thoroughly after handling. Do not breathe dust/fume/gas/mist/vapors/spray. Avoid generation of dust. Take precautionary measures against static discharges. Keep away from heat, sparks, flame and other sources of ignition.

Conditions for safe storage, including any incompatibilities

Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Chemical Name	ACGIH TLV	OSHA PEL 8-hour TWA	NIOSH IDLH	Denmark	European Union
Graphite (CAS #: 7782-42-5)	TWA: 2 mg/m ³ respirable fraction all forms except graphite fibers	-	IDLH: 1250 mg/m ³ TWA: 2.5 mg/m ³ natural respirable dust	TWA: 2.5 mg/m ³	-
Quartz (Respirable fraction) (CAS #: 14808-60-7)	0.025 mg/m ³ (resp.) for α-quartz and cristobalite	0.05 (resp.) mg/m ³	-		

Chemical Name	Latvia	France	Finland	Germany	Italy
Graphite (CAS #: 7782-42-5)	TWA: 2 mg/m ³	TWA: 2 mg/m ³	TWA: 2 mg/m ³	TWA: 1.5 mg/m ³ TWA: 4 mg/m ³	-

Chemical Name	Norway	United Kingdom	Australia	Austria	Belgium
Graphite (CAS #: 7782-42-5)	TWA: 5 mg/m ³ TWA: 2 mg/m ³ TWA: 10 mg/m ³ TWA: 4 mg/m ³ STEL: 5 mg/m ³ STEL: 2 mg/m ³ STEL: 10 mg/m ³ STEL: 4 mg/m ³	-	3 mg/m ³	STEL 10 mg/m ³ TWA: 5 mg/m ³	-

Chemical Name	Canada	USA	Japan	Korea	
Graphite (CAS #: 7782-42-5)	TWA: 2 mg/m ³ respirable fraction all forms except graphite fibers	TWA: 2 mg/m ³	TWA: 2 mg/m ³	TWA: 2 mg/m ³	

Appropriate engineering controls

Use with local exhaust ventilation.

Individual protection measures, such as personal protective equipment

Respiratory protection	If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations. For operations where respirators maybe required, wear a respirator approved for protection against crystalline silica-containing dust. Do not alter the respirator in any way. Workers who use tight-fitting respirators cannot have beards/mustaches which interfere with the respirator seal to the face.
Hand Protection	Wear protective gloves.
Eye/face protection	Wear safety glasses with side shields (or goggles).
Skin and body protection	Wear suitable protective clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES**Information on basic physical and chemical properties**

Appearance	Powder
Color	Grey to black
Odor	Odorless
Odor Threshold	Not determined
pH	Not determined
Melting point/freezing point	appr.3500°C
Boiling point / boiling range	Not determined
Flash point	Not applicable
Evaporation rate	Not determined
Flammability (solid, gas)	Not flammable
Flammability Limit in Air	Not determined
Vapor Pressure	< 0.01 mbar (20°C)
Vapor density	Not determined
Density	2.1-2.3g/cm ³ (25°C)
Relative density	Not determined
Bulk density	70 - 720 kg/m ³
Specific gravity	Not determined
Water solubility	<0.001g/l (insoluble in water)
Partition coefficient (LogPow)	Not determined
Autoignition temperature	> 600 °C(dispersed dust cloud) > 365 °C(deposited dust)
Decomposition temperature	Not determined
Kinematic viscosity	Not determined
Dynamic viscosity	Not applicable
Explosive properties	Not an explosive
Oxidizing properties	No oxidising properties

Other information

No information available

10. STABILITY AND REACTIVITY**Reactivity**

Stable under recommended storage and handling conditions (see SECTION 7, handling and storage).

Chemical stability

Stable under normal conditions.

Possibility of Hazardous Reactions

None under normal processing.

Conditions to avoid

Extremes of temperature and direct sunlight.

Incompatible materials

None known based on information supplied.

Hazardous Decomposition Products

None known based on information supplied.

11. TOXICOLOGICAL INFORMATION**Information on likely routes of exposure**

Inhalation	Inhalation of dusts may irritate the respiratory tract.
Eye contact	Contact with the eyes may cause mechanical irritation.
Skin Contact	Contact with the skin may cause mechanical irritation.
Ingestion	No known effect based on information supplied.

Information on toxicological effects**Acute toxicity**

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Graphite (CAS #: 7782-42-5)	> 2000 mg/kg (rat) (OECD 423)	-	> 2000 mg/m ³ /4h (rat) (OECD 403)

Skin corrosion/irritation

Non-irritant (OECD 404)

Serious eye damage/eye irritation

Non-irritant (OECD 405)

Sensitization

No information available.

Germ cell mutagenicity

No information available

Carcinogenicity

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

Reproductive toxicity

No information available

STOT - single exposure

No information available

STOT - repeated exposure

No information available

Aspiration hazard

Not applicable

12. ECOLOGICAL INFORMATION**Ecotoxicity**

Chemical Name	Algae/aquatic plants EC50	Fish LC50	Crustacea EC50

Graphite (CAS #: 7782-42-5)	> 100 mg/l/72h (Pseudokirchneriella subcapitata)	> 100 mg/l/96h (Danio rerio) (OECD 203)	> 100 mg/l/48h (Daphnia magna) (OECD 202)
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Persistence and degradability

No information available

Bioaccumulative potential

No information available

Mobility in soil

No information available

Other adverse effects

No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes Disposal should be in accordance with applicable regional, national and local laws and regulations
 Contaminated packaging Dispose of in accordance with federal, state and local regulations

14. TRANSPORT INFORMATION

DOT

UN/ID No. Not regulated
 UN Proper shipping name Not regulated
 Hazard Class Not regulated
 Packing Group Not regulated
 Special precautions No information available
 Marine pollutant Not applicable

15. REGULATORY INFORMATION

International Inventories

Component	AICS	DSL/NDSL	EINECS/ELI NCS	ENCS	IECSC	KECL	PICCS	TSCA
Graphite 7782-42-5	X	X	X	-	X	X	X	X

"-" Not Listed
 "X" Listed

US Federal Regulations

SARA 313
 Not apply

SARA 311/312 Hazard Categories
 Not apply

CWA (Clean Water Act)
 Not apply

CERCLA
 Not apply

US State Regulations

California Proposition 65

Not apply

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Graphite 7782-42-5	X	X	-

16. OTHER INFORMATION

Revision Note

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 Revision Note Not applicable

Key or legend to abbreviations and acronyms used in the safety data sheet

- TWA** - TWA (time-weighted average)
- STEL** - STEL (Short Term Exposure Limit)
- Ceiling** - Maximum limit value
- TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory
- DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List
- EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
- ENCS** - Japan Existing and New Chemical Substances
- IECSC** - China Inventory of Existing Chemical Substances
- KECL** - Korean Existing and Evaluated Chemical Substances
- PICCS** - Philippines Inventory of Chemicals and Chemical Substances
- AICS** - Australian Inventory of Chemical Substances

Disclaimer

The information provided in this Material Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

----- End of Safety Data Sheet -----