



Safety Data Sheet

acc. to OSHA HCS (29 CFR 1910.1200) and WHMIS 2015 regulations

Printing date: 10/26/2016

Revision: 10/26/2016

1 Identification

- **Product identifier**
- **Trade name:** Powermelt 50% Ferrosilicon Briquettes and/or Slabs
Powermelt 40% Ferrosilicon Briquettes and/or Slabs
- **Article number:** 40T-Si, 50T-Si
- **Other product identifiers:** Ferrosilicon Briquettes and Slabs
- **Recommended use and restriction on use**
- **Recommended use:**
Industrial uses.
Manufactured Article.
- **Restrictions on use:** No relevant information available.
- **Details of the supplier of the Safety Data Sheet**
- **Manufacturer/Supplier:**
DAUBER COMPANY INC.
577 N 18th Road
Tonica, IL 61370
(815) 442-3569
- **Emergency telephone number:**
ChemTel Inc.
(800)255-3924, +1 (813)248-0585

2 Hazard(s) identification

- **Classification of the substance or mixture**
The product is not classified as hazardous according to the Globally Harmonized System (GHS).
- **Additional information:**
Not hazardous as delivered. Long term inhalation of product dusts formed during use is harmful.
- **Label elements**
- **GHS label elements** This product does not have a classification according to the GHS regulation.
- **Hazard pictograms:** Not regulated.
- **Signal word:** Not regulated.
- **Hazard statements:** Not regulated.
- **Precautionary statements:** Not regulated.
- **Other hazards**
There are no other hazards not otherwise classified that have been identified.
0 % of the mixture consists of component(s) of unknown toxicity.

3 Composition/information on ingredients

- **Chemical characterization:** Mixtures

- **Components:**

7440-21-3	silicon	37-53%
7439-89-6	iron	<17%
65997-15-1	Cement, portland, chemicals	5-14%

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14808-60-7	quartz	<5%
1305-78-8	calcium oxide	<4%
1344-28-1	aluminium oxide	<3%
409-21-2	silicon carbide	<3%

Additional information:

Non-classification as a carcinogen is based on non-inhalable form of product. IARC listings for 14808-60-7 note that the substance must be respirable.

For the listed ingredient(s), the identity and/or exact percentage(s) are being withheld as a trade secret.

For the wording of the listed Hazard Statements refer to section 16.

4 First-aid measures

Description of first aid measures**After inhalation:**

Unlikely route of exposure.

Respiration of particulates is unlikely during normal usage.

Supply fresh air; consult doctor in case of complaints.

After skin contact:

Brush off loose particles from skin.

Immediately rinse with water.

If skin irritation is experienced, consult a doctor.

After eye contact:

Protect unharmed eye.

Remove contact lenses if worn, if possible.

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

After swallowing:

Rinse out mouth and then drink plenty of water.

Do not induce vomiting; immediately call for medical help.

Most important symptoms and effects, both acute and delayed:

Breathing difficulty

Coughing

Nausea in case of ingestion.

May cause gastro-intestinal irritation if ingested.

Indication of any immediate medical attention and special treatment needed:

No special measures required.

5 Fire-fighting measures

Extinguishing media**Suitable extinguishing agents:**

The product is not flammable.

Use fire fighting measures that suit the environment.

For safety reasons unsuitable extinguishing agents: None.**Special hazards arising from the substance or mixture**

Formation of toxic gases is possible during heating or in case of fire.

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- **Advice for firefighters**
- **Protective equipment:**
Wear self-contained respiratory protective device.
Wear fully protective suit.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Ensure adequate ventilation.
Avoid formation of dust.
Do not breathe dust.
- **Environmental precautions**
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **Methods and material for containment and cleaning up**
Pick up mechanically.
Dispose of the collected material according to regulations.
Send for recovery or disposal in suitable receptacles.
- **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

- **Handling**
- **Precautions for safe handling:**
Use only in well ventilated areas.
Use proper precautions around molten material.
Prevent formation of dust.
Any deposit of dust which cannot be avoided must be regularly removed.
- **Information about protection against explosions and fires:**
Keep respiratory protective device available.
- **Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and receptacles:**
Storage area should be dry and well-ventilated.
- **Information about storage in one common storage facility:** Store away from foodstuffs.
- **Further information about storage conditions:** Store in cool, dry conditions in well sealed receptacles.
- **Specific end use(s)** No relevant information available.

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8 Exposure controls/personal protection

· Control parameters

· Components with limit values that require monitoring at the workplace:

7440-21-3 silicon

PEL (USA)	Long-term value: 15* 5** mg/m ³ *total dust **respirable fraction
REL (USA)	Long-term value: 10* 5** mg/m ³ *total dust **respirable fraction
TLV (USA)	TLV withdrawn
EL (Canada)	Long-term value: 10* 3** mg/m ³ *total dust; **respirable fraction
EV (Canada)	Long-term value: 10 mg/m ³ total dust
LMPE (Mexico)	Short-term value: 20 mg/m ³ Long-term value: 10 mg/m ³ (e)

7439-89-6 iron

EV (Canada)	Long-term value: 1* 5** mg/m ³ as iron; *salts, water-soluble; **welding fume
LMPE (Mexico)	Long-term value: 1 mg/m ³

65997-15-1 Cement, portland, chemicals

PEL (USA)	Long-term value: 50 mppcf or 15* 5** mg/m ³ *total dust **respirable fraction
REL (USA)	Long-term value: 10* 5** mg/m ³ *total dust **respirable fraction
TLV (USA)	Long-term value: 1* mg/m ³ E; *as respirable fraction
EL (Canada)	Long-term value: 1 mg/m ³ respirable
EV (Canada)	Long-term value: 10(D) mg/m ³ total dust
LMPE (Mexico)	Long-term value: 1* mg/m ³ A4, *fracción respirable

14808-60-7 quartz

PEL (USA)	see Quartz listing
REL (USA)	Long-term value: 0.05* mg/m ³ *respirable dust; See Pocket Guide App. A
TLV (USA)	Long-term value: 0.025* mg/m ³ *as respirable fraction

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EL (Canada)	Long-term value: 0.025 mg/m ³ ACGIH A2; IARC 1
EV (Canada)	Long-term value: 0.10* mg/m ³ *respirable fraction
LMPE (Mexico)	Long-term value: 0.025* mg/m ³ A2, *fracción respirable

1305-78-8 calcium oxide

PEL (USA)	Long-term value: 5 mg/m ³
REL (USA)	Long-term value: 2 mg/m ³
TLV (USA)	Long-term value: 2 mg/m ³
EL (Canada)	Long-term value: 2 mg/m ³
EV (Canada)	Long-term value: 2 mg/m ³
LMPE (Mexico)	Long-term value: 2 mg/m ³

1344-28-1 aluminium oxide

PEL (USA)	Long-term value: 15*; 5** mg/m ³ *Total dust; ** Respirable fraction
REL (USA)	Long-term value: 10* 5** mg/m ³ as Al*Total dust**Respirable/pyro powd./welding f.
TLV (USA)	Long-term value: 1* mg/m ³ as Al; *as respirable fraction
EL (Canada)	Long-term value: 1.0 mg/m ³ respirable, as Al
EV (Canada)	Long-term value: 10 mg/m ³ total dust
LMPE (Mexico)	Long-term value: 1* mg/m ³ A4, *fracción respirable

409-21-2 silicon carbide

PEL (USA)	Long-term value: 15* 5** mg/m ³ fibrous dust: *total dust **respirable fraction
REL (USA)	Long-term value: 10* 5** mg/m ³ *total dust **respirable fraction
TLV (USA)	Long-term value: 10* 3** mg/m ³ fibrous dust:0.1 f/cc; nonfibrous:*inh.,**resp.
EL (Canada)	Long-term value: 10* 3** mg/m ³ *inhalable;**respirable
EV (Canada)	Long-term value: 10* 3** mg/m ³ , 0.1f/cc*** ppm nonfibrous: *inh.,**resp.; ***fibrous, resp.
LMPE (Mexico)	Long-term value: 10* 3** mg/m ³ fibroso:0.1f/cc,A2,F;no fibroso: *inh.,**resp.

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- **Exposure controls**

- **Personal protective equipment:**

- **General protective and hygienic measures:**

The usual precautionary measures for handling chemicals should be followed.

Keep away from foodstuffs, beverages and feed.

Wash hands before breaks and at the end of work.

Do not breathe dust.

Avoid close or long term contact with the skin.

Avoid contact with the eyes.

- **Engineering controls:** No relevant information available.

- **Breathing equipment:**

Not required under normal conditions of use.

Wear appropriate NIOSH respirator when ventilation is inadequate and occupational exposure limits are exceeded.

For large spills, respiratory protection may be advisable.

Use respiratory protection when grinding or cutting material.

Particulate mask should filter at least 99% of airborne particles.

- **Protection of hands:**

Wear gloves for the protection against mechanical hazards according to OSHA and NIOSH rules.

- **Eye protection:**



Safety glasses

- **Body protection:**

Not required under normal conditions of use.

Protection may be required for spills.

- **Limitation and supervision of exposure into the environment**

Avoid release to the environment.

- **Risk management measures** See Section 7 for additional information.

9 Physical and chemical properties

- **Information on basic physical and chemical properties**

- **Appearance:**

Form: Solid material

Color: Silver grey

- **Odor:** Musty.

- **Odor threshold:** Not determined.

- **pH-value:** Not applicable.

- **Melting point/Melting range:** Not determined.

- **Boiling point/Boiling range:** Not determined.

- **Flash point:** Not applicable.

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· Flammability (solid, gaseous):	Not applicable.
· Auto-ignition temperature:	Not applicable.
· Decomposition temperature:	>2000 °C (>3632 °F)
· Danger of explosion:	Product does not present an explosion hazard.
· Explosion limits	
Lower:	Not determined.
Upper:	Not determined.
· Oxidizing properties:	Non-oxidizing.
· Vapor pressure:	Not applicable.
· Density:	
Relative density:	2-4 g/cm ³ (16.69-33 lbs/gal)
Vapor density:	Not applicable.
Evaporation rate:	Not applicable.
· Solubility in / Miscibility with Water:	Insoluble.
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity	
Dynamic:	Not applicable.
Kinematic:	Not applicable.
· Other information	No relevant information available.

10 Stability and reactivity

- **Reactivity:** The product is non-reactive under normal conditions of use, storage and transport.
- **Chemical stability:** Stable under normal temperatures and pressures.
- **Thermal decomposition / conditions to be avoided:**
No decomposition if used and stored according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** Prevent formation of dust.
- **Incompatible materials** No relevant information available.
- **Hazardous decomposition products**
Carbon monoxide and carbon dioxide
Toxic metal oxide smoke

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**
- **LD/LC50 values that are relevant for classification:** None.

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- **Primary irritant effect:**
- **On the skin:** Based on available data, the classification criteria are not met.
- **On the eye:** Based on available data, the classification criteria are not met.
- **Sensitization:** No sensitizing effects known.

IARC (International Agency for Research on Cancer):

14808-60-7	quartz	1
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NTP (National Toxicology Program):

14808-60-7	quartz	K
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OSHA-Ca (Occupational Safety & Health Administration):

None of the ingredients are listed.

Probable route(s) of exposure:

Ingestion.
Eye contact.
Skin contact.

Repeated dose toxicity:

Repeated or long-term inhalation of product dusts may cause pulmonary disease.

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

- **Germ cell mutagenicity:** Based on available data, the classification criteria are not met.

Carcinogenicity:

Contains known or suspect carcinogens when inhaled. Product is in non-inhalable form and is nonclassifiable as a carcinogen.

- **Reproductive toxicity:** Based on available data, the classification criteria are not met.

- **STOT-single exposure:** Based on available data, the classification criteria are not met.

- **STOT-repeated exposure:** Based on available data, the classification criteria are not met.

- **Aspiration hazard:** Based on available data, the classification criteria are not met.

12 Ecological information

Toxicity

- **Aquatic toxicity** No relevant information available.
- **Persistence and degradability** No relevant information available.

- **Bioaccumulative potential:** No relevant information available.

- **Mobility in soil:** No relevant information available.

Additional ecological information**General notes:**

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

Results of PBT and vPvB assessment

- **PBT:** Not applicable.

- **vPvB:** Not applicable.

- **Other adverse effects** No relevant information available.

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13 Disposal considerations

Waste treatment methods**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 nonhazardous wastes.

Uncleaned packagings**Recommendation:** Disposal must be made according to official regulations.

14 Transport information

UN-Number

DOT, ADR, IMDG, IATA

Not regulated.

UN proper shipping name

DOT, ADR, IMDG, IATA

Not regulated.

Transport hazard class(es)

DOT, ADR, IMDG, IATA

Class

Not regulated.

Label

-

Packing group

DOT, ADR, IMDG, IATA

Not regulated.

Environmental hazards

Marine pollutant:

No

Special precautions for user

Not applicable.

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

Not applicable.

15 Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture

United States (USA)

SARA

Section 302 (extremely hazardous substances):

None of the ingredients are listed.

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Section 355 (extremely hazardous substances):

None of the ingredients are listed.

Section 313 (Specific toxic chemical listings):

1344-28-1 | aluminium oxide

TSCA (Toxic Substances Control Act)

All ingredients are listed.

Proposition 65 (California)**Chemicals known to cause cancer:**

Reference to chemical component(s) listed below are based on unbound respirable particles and are not generally applicable to product as supplied.

14808-60-7 | quartz

Chemicals known to cause reproductive toxicity for females:

None of the ingredients are listed.

Chemicals known to cause reproductive toxicity for males:

None of the ingredients are listed.

Chemicals known to cause developmental toxicity:

None of the ingredients are listed.

Carcinogenic categories**EPA (Environmental Protection Agency):**

None of the ingredients are listed.

IARC (International Agency for Research on Cancer):

Reference to chemical component(s) listed below are based on unbound respirable particles and are not generally applicable to product as supplied.

14808-60-7 | quartz

1

NIOSH-Ca (National Institute for Occupational Safety and Health):

14808-60-7 | quartz

Canadian Domestic Substances List (DSL):

All ingredients are listed.

Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

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.

Date of preparation / last revision 10/26/2016 / -**Abbreviations and acronyms:**

ADR: 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 Transport Association

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

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LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
NIOSH: National Institute for Occupational Safety
OSHA: Occupational Safety & Health

Sources

Website, European Chemicals Agency (echa.europa.eu)

Website, US EPA Substance Registry Services (ofmpub.epa.gov/sor internet/registry/substreg/home/overview/home.do)

Website, Chemical Abstracts Registry, American Chemical Society (www.cas.org)

Patty's Industrial Hygiene, 6th ed., Rose, Vernon, ed. ISBN: ISBN: 978-0-470-07488-6

Casarett and Doull's Toxicology: The Basic Science of Poisons, 8th Ed., Klaasen, Curtis D., ed., ISBN: 978-0-07-176923-5.

Safety Data Sheets, Individual Manufacturers

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