

Safety Data Sheet

according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and
OSHA GHS

Printing date 13.03.2015

Revision: 13.03.2015

SECTION 1: Identification of the substance/mixture and of the company/undertaking

- **1.1 Product identifier**
- **Trade name: BIRM**
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- **Application of the substance / the mixture** Filter aid/ Filtration accelerator
- **1.3 Details of the supplier of the Safety Data Sheet**
- **Manufacturer/Supplier:**
Clack Corporation
4462 Duraform Lane
Windsor, WI 53598
Phone: 608-846-3010
- **1.4 Emergency telephone number:**
ChemTel Inc.
(800)255-3924, +1 (813)248-0585

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**
Classifications listed also are applicable to the OSHA GHS Hazard Communication Standard (29CFR1910.1200).



health hazard

Carc. 1A H350 May cause cancer.

STOT RE 2 H373 May cause damage to the central nervous system through prolonged or repeated exposure. Route of exposure: Inhalative.

-
- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**

Not applicable.



Xn; Harmful

R48/20: Harmful: danger of serious damage to health by prolonged exposure through inhalation.

- **Information concerning particular hazards for human and environment:**
The product has to be labelled 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 according to the latest editions of the EU-lists, and extended by company and literature data.
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.
- **Additional information:**
There are no other hazards not otherwise classified that have been identified.
0 percent of the mixture consists of component(s) of unknown toxicity

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2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008

The product is additionally classified and labelled according to the Globally Harmonized System within the United States (GHS).

The product is classified and labelled according to the CLP regulation.

Hazard pictograms



GHS08

Signal word Danger

Hazard-determining components of labelling:

Quartz (SiO₂)

manganese dioxide

Hazard statements

H350 May cause cancer.

H373 May cause damage to the central nervous system through prolonged or repeated exposure. Route of exposure: Inhalative.

Precautionary statements

P260 Do not breathe dust.

P280 Wear protective gloves / eye protection.

P202 Do not handle until all safety precautions have been read and understood.

P314 Get medical advice/attention if you feel unwell.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

Additional information:

Restricted to professional users.

Hazard description:

WHMIS-symbols:

D2A - Very toxic material causing other toxic effects



NFPA ratings (scale 0 - 4)



Health = 1

Fire = 0

Reactivity = 0

HMIS-ratings (scale 0 - 4)



Health = *1

Fire = 0

Reactivity = 0

* - Indicates a long term health hazard from repeated or prolonged exposures.

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· HMIS Long Term Health Hazard Substances







14808-60-7 | Quartz (SiO₂)

- **2.3 Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

- **3.2 Mixtures**
- **Description:** Mixture of substances listed below with nonhazardous additions.

· Dangerous components:

CAS: 14808-60-7 EINECS: 238-878-4	Quartz (SiO ₂)  T R49;  Xn R48  Carc. 1A, H350	>50%
CAS: 1313-13-9 EINECS: 215-202-6 Index number: 025-001-00-3	manganese dioxide  Xn R22-48/20  STOT RE 2, H373  Acute Tox. 4, H302; Acute Tox. 4, H332	<25%

· Additional information:

For the listed ingredients, the identity and exact percentages are being withheld as a trade secret.
For the wording of the listed risk phrases refer to section 16.

SECTION 4: First aid measures

- **4.1 Description of first aid measures**
- **General information:**
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:**
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 persist, consult a doctor.
- **After swallowing:** Do not induce vomiting; call for medical help immediately.
- **4.2 Most important symptoms and effects, both acute and delayed**
Coughing
Breathing difficulty
- **Hazards**
Danger of impaired breathing.
May cause damage to the central nervous system through prolonged or repeated exposure. Route of exposure: Inhalative.

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May cause cancer.

· **4.3 Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

SECTION 5: Firefighting measures

· **5.1 Extinguishing media**

· **Suitable extinguishing agents:**

The product is not flammable.

CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

· **For safety reasons unsuitable extinguishing agents:** None.

· **5.2 Special hazards arising from the substance or mixture** No further relevant information available.

· **5.3 Advice for firefighters**

· **Protective equipment:**

Wear self-contained respiratory protective device.

Wear fully protective suit.

· **Additional information** No further relevant information available.

SECTION 6: Accidental release measures

· **6.1 Personal precautions, protective equipment and emergency procedures**

For large spills, use respiratory protective device against the effects of fumes/dust/aerosol.

Wear protective clothing.

Ensure adequate ventilation

· **6.2 Environmental precautions:** Do not allow to enter sewers/ surface or ground water.

· **6.3 Methods and material for containment and cleaning up:**

Pick up mechanically.

Dispose contaminated material as waste according to item 13.

Send for recovery or disposal in suitable receptacles.

· **6.4 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.

SECTION 7: Handling and storage

· **7.1 Precautions for safe handling**

Any unavoidable deposit of dust must be regularly removed.

Take note of emission threshold.

Use only in well ventilated areas.

· **Information about fire - and explosion protection:**

Dust can combine with air to form an explosive mixture.

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

· **Storage:**

· **Requirements to be met by storerooms and receptacles:** Protect from humidity and water.

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- **Information about storage in one common storage facility:**
Store away from water.
Store away from foodstuffs.
Store away from flammable substances.
- **Further information about storage conditions:** None.
- **7.3 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.
- **8.1 Control parameters**

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

14808-60-7 Quartz (SiO₂)

PEL (USA)	see Quartz listing
REL (USA)	0,05* mg/m ³ *respirable dust; See Pocket Guide App. A
TLV (USA)	0,025* mg/m ³ *as respirable fraction
EL (Canada)	0,025 mg/m ³ ACGIH A2; IARC 1
EV (Canada)	0,10* mg/m ³ *respirable fraction

1313-13-9 manganese dioxide

PEL (USA)	Short-term value: C 5 mg/m ³ as Mn
REL (USA)	Short-term value: 3 mg/m ³ Long-term value: 1 mg/m ³ as Mn
TLV (USA)	0,2 mg/m ³ as Mn
EL (Canada)	0,2 mg/m ³ as Mn; R

- **DNELs** No further relevant information available.
- **PNECs** No further relevant information available.
- **Additional information:** The lists valid during the making were used as basis.
- **8.2 Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
The usual precautionary measures 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.
- **Respiratory protection:**
Use respiratory protection when grinding or cutting material.

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Use suitable respiratory protective device when high concentrations are present.
For large spills, respiratory protection may be advisable.

- **Protection of hands:**



Protective gloves

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.

- **Material of gloves**

Neoprene gloves

Nitrile rubber, NBR

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

- **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

- **Eye protection:**



Safety glasses

- **Body protection:** Protective work clothing

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

No further relevant information available.

- **Risk management measures**

See Section 7 for additional information.

No further relevant information available.

SECTION 9: Physical and chemical properties

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

- **General Information**

- **Appearance:**

Form:

Powder

Colour:

Dark brown

- **Odour:**

Characteristic

- **Odour threshold:**

Not determined.

- **pH-value:**

Not applicable.

- **Change in condition**

Melting point/Melting range:

Not Determined.

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- | | |
|---|---|
| Boiling point/Boiling range: | > 999 °C (> 1830 °F) |
| · Flash point: | Not applicable. |
| · Flammability (solid, gaseous): | Not determined. |
| · Auto/Self-ignition temperature: | Not determined. |
| · Decomposition temperature: | Not determined. |
| · Self-igniting: | Product is not self-igniting. |
| · Danger of explosion: | Product does not present an explosion hazard. |
| · Explosion limits: | |
| Lower: | Not determined. |
| Upper: | Not determined. |
| · Oxidising properties | Contains oxidizing agent. |
| · Vapour pressure: | Not applicable. |
| · Density at 20 °C (68 °F): | 2,25 g/cm ³ (18,776 lbs/gal) |
| · Relative density | Not determined. |
| · Vapour 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. |
| · 9.2 Other information | No further relevant information available. |

SECTION 10: Stability and reactivity

- **10.1 Reactivity**
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:**
No decomposition if used and stored according to specifications.
- **10.3 Possibility of hazardous reactions**
As the product is supplied it is not capable of dust explosion; however enrichment with fine dust causes risk of dust explosion.
Risk of dust explosion if enriched with fine dust in the presence of air.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:**
Hydrocarbons

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Toxic metal oxide smoke

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SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity:**
- **LD/LC50 values relevant for classification:** None.
- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** No irritating effect.
- **Sensitisation:** No sensitising effects known.
- **Subacute to chronic toxicity:**
May cause damage to the central nervous system through prolonged or repeated exposure. Route of exposure: Inhalative.
- **Additional toxicological information:**
The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:
- **Acute effects (acute toxicity, irritation and corrosivity):** None.
- **Repeated dose toxicity:**
May cause damage to the central nervous system through prolonged or repeated exposure. Route of exposure: Inhalative.
May cause cancer.
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction):**
Carc. 1A

SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability**
Inorganic product, is not eliminable from water by means of biological cleaning processes.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**
Not known to be hazardous to water.
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

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SECTION 13: Disposal considerations

· 13.1 Waste treatment methods

· Recommendation

Can be disposed of with household garbage with prior chemical-physical or biological treatment following consultation with the waste disposal facility operator and the pertinent authorities and adhering to the necessary technical regulations.

· Uncleaned packaging:

· Recommendation: Disposal must be made according to official regulations.

SECTION 14: Transport information

· 14.1 UN-Number

· DOT, ADR, ADN, IMDG, IATA

Not Regulated

· 14.2 UN proper shipping name

· DOT, ADR, ADN, IMDG, IATA

Not Regulated

· 14.3 Transport hazard class(es)

· DOT, ADR, ADN, IMDG, IATA

· Class

Not Regulated

· 14.4 Packing group

· DOT, ADR, IMDG, IATA

Not Regulated

· 14.5 Environmental hazards:

· Marine pollutant:

No

· 14.6 Special precautions for user

Not applicable.

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

Not applicable.

· UN "Model Regulation":

-

SECTION 15: Regulatory information

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

· United States (USA)

· SARA

· Section 355 (extremely hazardous substances):

None of the ingredients are listed.

· Section 313 (Specific toxic chemical listings):

1313-13-9 manganese dioxide

· TSCA (Toxic Substances Control Act):

All ingredients are listed.

· Proposition 65 (California):

· Chemicals known to cause cancer:

14808-60-7 Quartz (SiO₂)

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<ul style="list-style-type: none"> · Chemicals known to cause reproductive toxicity for females: 			
None of the ingredients are listed.			
<ul style="list-style-type: none"> · Chemicals known to cause reproductive toxicity for males: 			
None of the ingredients are listed.			
<ul style="list-style-type: none"> · Chemicals known to cause developmental toxicity: 			
None of the ingredients are listed.			
<ul style="list-style-type: none"> · Carcinogenic Categories 			
<ul style="list-style-type: none"> · EPA (Environmental Protection Agency) 			
<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="border: 1px solid black; width: 150px;">1313-13-9</td> <td style="border: 1px solid black;">manganese dioxide</td> <td style="border: 1px solid black; width: 50px; text-align: center;">D</td> </tr> </table>	1313-13-9	manganese dioxide	D
1313-13-9	manganese dioxide	D	
<ul style="list-style-type: none"> · IARC (International Agency for Research on Cancer) 			
<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="border: 1px solid black; width: 150px;">14808-60-7</td> <td style="border: 1px solid black;">Quartz (SiO₂)</td> <td style="border: 1px solid black; width: 50px; text-align: center;">1</td> </tr> </table>	14808-60-7	Quartz (SiO ₂)	1
14808-60-7	Quartz (SiO ₂)	1	
<ul style="list-style-type: none"> · TLV (Threshold Limit Value established by ACGIH) 			
<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="border: 1px solid black; width: 150px;">14808-60-7</td> <td style="border: 1px solid black;">Quartz (SiO₂)</td> <td style="border: 1px solid black; width: 50px; text-align: center;">A2</td> </tr> </table>	14808-60-7	Quartz (SiO ₂)	A2
14808-60-7	Quartz (SiO ₂)	A2	
<ul style="list-style-type: none"> · NIOSH-Ca (National Institute for Occupational Safety and Health) 			
<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="border: 1px solid black; width: 150px;">14808-60-7</td> <td style="border: 1px solid black;">Quartz (SiO₂)</td> <td style="border: 1px solid black; width: 50px;"></td> </tr> </table>	14808-60-7	Quartz (SiO ₂)	
14808-60-7	Quartz (SiO ₂)		
<ul style="list-style-type: none"> · Canada 			
<ul style="list-style-type: none"> · Canadian Domestic Substances List (DSL) 			
All ingredients are listed.			
<ul style="list-style-type: none"> · Canadian Ingredient Disclosure list (limit 0.1%) 			
None of the ingredients are listed.			
<ul style="list-style-type: none"> · Canadian Ingredient Disclosure list (limit 1%) 			
<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="border: 1px solid black; width: 150px;">14808-60-7</td> <td style="border: 1px solid black;">Quartz (SiO₂)</td> <td style="border: 1px solid black; width: 50px;"></td> </tr> </table>	14808-60-7	Quartz (SiO ₂)	
14808-60-7	Quartz (SiO ₂)		
<ul style="list-style-type: none"> · Other regulations, limitations and prohibitive regulations 			
This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations.			
<ul style="list-style-type: none"> · Substances of very high concern (SVHC) according to REACH, Article 57 			
None of the ingredients are listed.			
<ul style="list-style-type: none"> · 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out. 			

SECTION 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.

- **Relevant phrases**

H302 Harmful if swallowed.

H332 Harmful if inhaled.

H350 May cause cancer.

H373 May cause damage to the central nervous system through prolonged or repeated exposure.
Route of exposure: Inhalative.

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R22 Harmful if swallowed.

R48 Danger of serious damage to health by prolonged exposure.

R48/20 Harmful: danger of serious damage to health by prolonged exposure through inhalation.

R49 May cause cancer by inhalation.

• 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 Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

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

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

WHMIS: Workplace Hazardous Materials Information System (Canada)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

Acute Tox. 4: Acute toxicity, Hazard Category 4

Carc. 1A: Carcinogenicity, Hazard Category 1A

STOT RE 2: Specific target organ toxicity - Repeated exposure, Hazard Category 2

• Sources

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