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## 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 preparation 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

#### 2 Hazards identification

- · 2.1 Classification of the substance or mixture
- · Classification according to Regulation (EC) No 1272/2008



GHS08 health hazard

STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure.

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



Xn; Harmful

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.

- · 2.2 Label elements
- Labelling according to Regulation (EC) No 1272/2008

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

· Hazard pictograms



· Signal word Warning

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· Hazard-determining components of labelling:

Quartz (SiO2)

· Hazard statements

H373 May cause damage to organs through prolonged or repeated exposure.

· Precautionary statements

P101 If medical advice is needed, have product container or label at hand.

P102 Keep out of reach of children.

P103 Read label before use.

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P314 Get medical advice/attention if you feel unwell.

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

- · Additional information: N/A
- · Hazard description:
- · WHMIS-symbols:

D2A - Very toxic material causing other toxic effects



· NFPA ratings (scale 0 - 4)



Health = 2Fire = 0Reactivity = 0

· HMIS-ratings (scale 0 - 4)



2 Health = \*2 Fire = 0

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

## 3 Composition/information on ingredients

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

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	(Conto	d. of page 2)		
· Dangerous components:				
CAS: 14808-60-7	Quartz (SiO2)	>50%		
EINECS: 238-878-4	xn R48/20			
	<b>♦</b> STOT RE 2, H373			
CAS: 12141-46-7	aluminium silicate	25-50%		
EINECS: 235-253-8				
CAS: 1313-13-9	manganese dioxide	<25%		
EINECS: 215-202-6	<b>▼</b> Xn R20/22			
Index number: 025-001-00-3	① Acute Tox. 4, H302; Acute Tox. 4, H332			
• Additional information: For the wording of the listed risk phrases refer to section 16.				

#### 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.

Take affected persons out into the fresh air.

· After inhalation:

Supply fresh air; consult doctor in case of complaints.

In case of unconsciousness place patient stably in side position for transportation.

· After skin contact:

Immediately wash with water and soap and rinse thoroughly.

If skin irritation continues, 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:

Rinse out mouth and then drink plenty of water.

Do not induce vomiting; call for medical help immediately.

· 4.2 Most important symptoms and effects, both acute and delayed

No further relevant information available.

- · Hazards Danger of impaired breathing.
- · 4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

## **5 Firefighting measures**

- · 5.1 Extinguishing media
- · Suitable extinguishing agents: Use fire extinguishing methods suitable to surrounding conditions.
- · 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.

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Wear fully protective suit.

· Additional information Cool endangered receptacles with water spray.

#### 6 Accidental release measures

· 6.1 Personal precautions, protective equipment and emergency procedures

Use respiratory protective device against the effects of fumes/dust/aerosol.

Ensure adequate ventilation

Wear protective clothing.

- 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.

· 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.

### 7 Handling and storage

#### · 7.1 Precautions for safe handling

Thorough dedusting.

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of dust.

Any unavoidable deposit of dust must be regularly removed.

Take note of emission threshold.

· 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:

Store in a cool location.

Avoid storage near extreme heat, ignition sources or open flame.

Protect from humidity and water.

· Information about storage in one common storage facility:

Do not store together with oxidizing and acidic materials.

Store away from water.

Store away from foodstuffs.

· Further information about storage conditions:

Store in cool, dry conditions in well sealed receptacles.

Protect from humidity and water.

• 7.3 Specific end use(s) No further relevant information available.

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#### 8 Exposure controls/personal protection

- · Additional information about design of technical facilities: No further data; see item 7.
- · 8.1 Control parameters

· Ingredients v	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/m³ *respirable dust; See Pocket Guide App. A				
TLV (USA)	0,025* mg/m³ *as respirable fraction				
EL (Canada)	0,025 mg/m³ ACGIH A2; IARC 1				
EV (Canada)	0,10* mg/m³ *respirable fraction				
1313-13-9 manganese dioxide					
PEL (USA)	Short-term value: C 5 mg/m³ as Mn				
REL (USA)	Short-term value: 3 mg/m³ Long-term value: 1 mg/m³ as Mn				
TLV (USA)	0,2 mg/m³ as Mn				
EL (Canada)	0,2 mg/m³ 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:

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

· Respiratory protection:

Use respiratory protection when grinding or cutting material.

Use suitable respiratory protective device in case of insufficient ventilation.

Use suitable respiratory protective device when high concentrations are present.

· Protection of hands:



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The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

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:

Contact lenses should not be worn.



Safety glasses

- · Body protection: Not required under normal conditions of use.
- · 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.

#### 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: Undetermined.
Boiling point/Boiling range: >500 °F / >260 °C

· Flash point: Not applicable.

· Flammability (solid, gaseous): Not determined.

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		(Contd. of page
· 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.	
<ul><li>Explosion limits:</li><li>Lower:</li><li>Upper:</li><li>Oxidizing properties</li></ul>	Not determined. Not determined. Contains oxidizing agent.	
· Vapour pressure:	Not applicable.	
<ul><li>Density at 20 °C:</li><li>Relative density</li><li>Vapour density</li><li>Evaporation rate</li></ul>	2,25 g/cm³ Not determined. Not applicable. Not applicable.	
· Solubility in / Miscibility with water:	Insoluble.	
· Partition coefficient (n-octanol/wat	ter): Not determined.	
· Viscosity: Dynamic: Kinematic:	Not applicable. Not applicable.	
· Solvent content:		
Solids content:  · 9.2 Other information	Not determined. No further relevant information available.	

## 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:

Carbon monoxide and carbon dioxide

Hydrocarbons

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Toxic metal oxide smoke

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## 11 Toxicological information

- · 11.1 Information on toxicological effects
- · Acute toxicity:
- · Primary irritant effect:
- · on the skin: Slight irritant effect on skin and mucous membranes.
- · on the eve: Slight irritant effect on eyes.
- · Sensitization: No sensitizing effects known.
- · 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:

Harmful

· Repeated dose toxicity: May cause damage to organs through prolonged or repeated exposure .

## 12 Ecological information

- · 12.1 Toxicity
- · Aquatic toxicity: No further relevant information available.
- · 12.2 Persistence and degradability

Anorganic product, is not removable from water by biological cleaning process

- 12.3 Bioaccumulative potential No further relevant information available.
- 12.4 Mobility in soil No further relevant information available.
- Additional ecological information:
- · General notes:

This statement was deduced from the properties of the single components.

Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water

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

- · 12.5 Results of PBT and vPvB assessment
- · **PBT:** Not applicable.
- · vPvB: Not applicable.
- 12.6 Other adverse effects No further relevant information available.

#### 13 Disposal considerations

- · 13.1 Waste treatment methods
- · Recommendation

Must not be disposed together with household garbage. Do not allow product to reach sewage system. Can be burned with household garbage after consulting with the waste disposal facility operator and the pertinent authorities and adhering to the necessary technical regulations.

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.

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· Uncleaned packaging:

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

14 Transport information		
· 14.1 UN-Number · DOT, ADR, ADN, IMDG, IATA	N/A	
<ul> <li>14.2 UN proper shipping name</li> <li>DOT, ADR, ADN, IMDG, IATA</li> </ul>	N/A	
· 14.3 Transport hazard class(es)		
· DOT, ADR, ADN, IMDG, IATA · Class	N/A	
· 14.4 Packing group · DOT, ADR, IMDG, IATA	N/A	
· 14.5 Environmental hazards: · Marine pollutant:	No	
· 14.6 Special precautions for user	Not applicable.	
· 14.7 Transport in bulk according to Anno MARPOL73/78 and the IBC Code	ex II of Not applicable.	
· UN "Model Regulation":	-	

#### 15 Regulatory information

- $\cdot$  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 is listed.

· Section 313 (Specific toxic chemical listings):

None of the ingredients is listed.

· TSCA (Toxic Substances Control Act):

All ingredients are listed.

- · Proposition 65 (California):
- · Chemicals known to cause cancer:

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· Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed.

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· Chemicals known to cause reproductive toxicity for males:	
None of the ingredients is listed.	
· Chemicals known to cause developmental toxicity:	
None of the ingredients is listed.	
· Carcinogenic Categories	
· EPA (Environmental Protection Agency)	
1313-13-9 manganese dioxide	D
· IARC (International Agency for Research on Cancer)	
14808-60-7 Quartz (SiO2)	1
· TLV (Threshold Limit Value established by ACGIH)	
14808-60-7 Quartz (SiO2)	A2
NIOSH-Ca (National Institute for Occupational Safety and Health)	
14808-60-7 Quartz (SiO2)	
OSHA-Ca (Occupational Safety & Health Administration)	
None of the ingredients is listed.	
· Canada	
· Canadian Domestic Substances List (DSL)	
All ingredients are listed.	
· Canadian Ingredient Disclosure list (limit 0.1%)	
None of the ingredients is listed.	
· Canadian Ingredient Disclosure list (limit 1%)	
14808-60-7 Quartz (SiO2)	
· 15.2 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.

#### · Relevant phrases

H302 Harmful if swallowed.

H332 Harmful if inhaled.

H373 May cause damage to organs through prolonged or repeated exposure.

R20/22 Harmful by inhalation and if swallowed.

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

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

ACGIH: American Conference of Governmental Industrial Hygienists

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NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)
WHMIS: Workplace Hazardous Materials Information System (Canada)

· Sources

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