

WASHINGTON MILLS

SAFETY DATA SHEET




Revision: 11.01CLP

Date: 1 September 2011

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1	Product Identifier	Carborex [®] C-6, NO 1. RF, RA, WSC, G-21, G21P, C-6 HBD, C-6 LBD, C-6 SK
	GHS Product Identifier	Carborex [®] C-6, NO 1. RF, RA, WSC, G-21, G21P, C-6 HBD, C-6 LBD, C-6 SK
	Chemical Name	Mixture (Silicon Carbide)
	Trade Name	See Product Identifier
	CAS No.	Mixture
	EINECS No.	Mixture
	Reach Registration No.	Not available
1.2	Relevant Identified Uses Of The Substance Or Mixture And Uses Advised Against	
	Identified Use(s)	Consult the supplier.
	Uses Advised Against	Users are recommended to seek further advice.
1.3	Details Of The Supplier Of The Safety Data Sheet	
	Company Identification	Washington Mills Electro Minerals Corp.
	Address	1801 Buffalo Avenue Niagara Falls, NY 14302
	Telephone	(716) 278-6600
	E-Mail (Competent Person)	info@washingtonmills.com
1.4	Emergency Telephone Number – CHEMTREC	
		(800)424-9300 (USA/Canada), 703-527-3887 (International)

SECTION 2: HAZARDS IDENTIFICATION

2.1	Classification Of The Substance Or Mixture		
2.1.1	Regulation (EC) No. 1272/2008 (CLP) – 3.2/2, 3.3/2, 3.8/3		
2.1.2	Directive 67/548/EEC & Directive 1999/45/EC – IRRITANT		
2.2	Label Elements		
2.2.1	Label Elements According to Regulation (EC) No. 1272/2008 (CLP)		
	GHS Product Identifier (EU)		
	Hazard Pictogram(s)		Signal Word(s) WARNING
	Hazard Statement(s)	H315: Causes skin irritation. H319: Causes serious eye irritation. H335: May cause respiratory irritation.	
	Precautionary Statement(s)	P261: Avoid breathing dust/fume/gas/mist/vapours/spray. P304 + P341: IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.	
2.2.2	Label Elements According to Directive 67/548/EEC & Directive 1999/45/EC		
	Hazard Symbol		
	Risk Phrases	R36/37/38: Irritating to eyes, respiratory system and skin.	
	Safety Phrases	S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S36: Wear suitable protective clothing.	
2.3	Other Hazards	GHS Classification (USA): Hazardous under OSHA Hazard Communication Standard – IRRITANT HMIS: Health-0, Flammability-0, Reactivity – 0 Hazard Statement(s) H315: Causes skin irritation. H319: Causes serious eye irritation. H335: May cause respiratory irritation.	
	Precautionary Statement(s)	P261: Avoid breathing dust/fume/gas/mist/vapours/spray. P304 + P341: IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.	

Carborex[®] C-6, NO 1. RF, RA, WSC, G-21, G21P, C-6 HBD, C-6 HBD, C-6 SK

WHMIS/GHS Classification (Canada): Hazardous under WHMIS.

D2B – Material Causing Other Toxic Effects (Irritation)

Hazard Statement(s)

H315: Causes skin irritation.

H319: Causes serious eye irritation.

H335: May cause respiratory irritation.

Precautionary Statement(s)

P261: Avoid breathing dust/fume/gas/mist/vapours/spray.

P280: Wear protective gloves/protective clothing/eye protection/face protection.

P304 + P341: IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.

P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing.



2.4 Additional Information See Section 16 for additional dust hazard information.

Potential Health Effects

Inhalation Irritation of the respiratory tract.*Skin Contact* Mechanical irritation.*Eye Contact* Mechanical irritation, corneal scratches.*Ingestion* Harmful if swallowed; mechanical and chemical irritant.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

EC Classification No. 1272/2008/EC And GHS Classification

Hazardous Ingredient(s)	%W/W	CAS No.	EC No.	REACH Registration No.	Hazard Pictogram(s) and Hazard Statement(s)
Silicon Carbide	>90	409-21-2	206-991-8	NA	3.2/2, 3.3/2, 3.8/3 ; H315, H319, H335
Silicon Dioxide	<0.5	7631-86-9	262-373-8	NA	3.3/2, 3.8/3; H319, H335
Crystalline Silica	<0.5	14808-60-7	238-878-4	NA	3.3/2, 3.8/3; H319, H335

Impurities: Si + C + Fe + Al = <1.0%

EC Classification No. 67/548/EEC

Hazardous Ingredient(s)	%W/W	CAS No.	EC No.	REACH Registration No.	Hazard Pictogram(s) and Risk (R) Phras(es)
Silicon Carbide	>90	409-21-2	206-991-8	NA	Xn ; R36/37/38
Silicon Dioxide	<0.5	7631-86-9	262-373-8	NA	Xn ; R36/38
Crystalline Silica	<0.5	14808-60-7	238-878-4	NA	Xn ; R36/38

Impurities: Si + C + Fe + Al = <1.0%

3.3 Additional Information - For full text of H phrases see section 16. For full text of R phrases see section 16. Non-Hazardous ingredients are not listed and make up the balance of the product.

SECTION 4: FIRST AID MEASURES

4.1 Description Of First Aid Measures

Inhalation	Remove patient from exposure. Keep patient at rest and give oxygen if breathing difficult. If symptoms develop, obtain medical attention.
Skin Contact	Remove contaminated clothing immediately and drench affected skin with plenty of water. If irritation (redness, rash, blistering) develops, get medical attention.
Eye Contact	Irrigate with eyewash solution or clean water, holding the eyelids apart, for at least 15 minutes. Obtain immediate medical attention.
Ingestion	Avoid ingestion. Do not induce vomiting. Get immediate medical attention.

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4.2 Most Important Symptoms And Effects, Both Acute And Delayed	<p>Acute: Cough and Shortness of breath.</p> <p>Delayed and Chronic Effects: This product contains crystalline silica, which poses an inhalation hazard, especially upon chronic exposure. Silicosis may cause an emphysemic-like illness with serious health concerns. Crystalline silica is also considered a carcinogen by several national and international agencies.</p>
4.3 Indication Of The Immediate Medical Attention And Special Treatment Needed	Treat symptomatically.

SECTION 5: FIRE-FIGHTING MEASURES

Not Flammable. No declared Flash Point, Explosive Limits, or Auto-Ignition Temperature.	
5.1 Extinguishing Media	<p>Suitable Extinguishing Media: Extinguisher suitable for ordinary combustible materials. Class A extinguishing agents.</p> <p>Unsuitable Extinguishing Media: None known.</p>
5.2 Special Hazards Arising From The Substance Or Mixture	A self contained breathing apparatus and suitable protective clothing should be worn in fire conditions.
5.3 Advice For Fire-Fighters	Extinguish preferably with dry chemical, foam or water spray.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal Precautions, Protective Equipment And Emergency Procedures	Avoid dust generation. Ensure full personal protection (including respiratory protection) during removal of spillages.
6.2 Environmental Precautions	Ventilation recommended.
6.3 Methods And Material For Containment And Cleaning Up	Collect mechanically and dispose of according to Section 13. Transfer to a lidded container for disposal or recovery. Avoid dust generation. Ensure adequate ventilation.
6.4 Reference To Other Sections	See Also Section 7, 8, 13.
6.5 Additional Information	None

SECTION 7: HANDLING AND STORAGE

7.1 Precautions For Safe Handling	Avoid contact with skin and eyes. Wash hands before eating, drinking or smoking. Avoid accumulation of dust. Use only in well-ventilated areas.
7.2 Conditions For Safe Storage, Including Any Incompatibilities	Store in the original container in a cool, dry well ventilated area. Keep containers tightly sealed.
Storage Temperature	Ambient.
Storage Life	Not available
Incompatible Materials	Separate from oxidizers (oxygen), (explosives), (halogens), (compressed air) (acids), (bases) (and food chemicals) etc. in transport (and storage).
7.3 Specific End Use(s)	Consult the supplier.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control Parameters

8.1.1 Occupational Exposure Limits

Substance	CAS No.	LTEL (8 hr TWA ppm)	LTEL (8 hr TWA mg/m ³)	STEL (ppm)	STEL (mg/m ³)	Note:
Silicon Carbide	409-21-2	NE	10 (Inhalable) 3 (respirable)	NE	NE	ACGIH
		NE	15 (Total Dust) 5 (Respirable)	NE	NE	OSHA
Silicon Dioxide	7631-86-9	NE	16 (Calculated)*	NE	NE	OSHA – 5% SiO ₂
		NE	6 (Calculated)*	NE	NE	OSHA – 5% Quartz
Crystalline Silica	14808-60-7	NE	0.025 (Respirable)	NE	NE	ACGIH
		NE	0.1 (Respirable)	NE	NE	OSHA vacated

* - Based on 80 mg/m³ + 5% SiO₂ for Amorphous SiO₂ and 30 mg/m³ + 5% SiO₂ for Quartz





8.1.2 Biological Limit Value

Limit Value Type (Country Of Origin)	Substance	CAS No.	Biological Limit Value	Note:
USA	* For crystalline silica impurities (Crystabollite)	14464-46-1	0.025mg/m ³	ACGIH Limit

8.1.3 PNECs And DNELs

No PNECs or DNELs available for product

8.2.2 Personal Protection Equipment

	Respirators	Avoid breathing dust. Assess exposure concentrations of all materials involved in the workplace. If concentrations exceed the exposure limits listed in Exposure Guidelines or irritation or other symptoms experienced, follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149.
	Eye Protection	Avoid eye contact. Wear protective eyewear (goggles, face shield, or safety glasses).
	Gloves	Wear protective gloves.
	Body Protection	Avoid skin contact. Wear suitable protective clothing and gloves.
	Engineering Controls	Provide sufficient ventilation, particularly in closed rooms. Maintain employee exposure below applicable permissible exposure limits.
	Other	Remove contaminated, saturated clothing immediately. Contaminated clothing should be thoroughly cleaned.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information On Basic Physical And Chemical Properties

Appearance	Black Or Green Solid Granular Product	Color	Black Or Green
Odor	Odorless	Odor Threshold (ppm)	Not Available
Melting Point (°C) / Freezing Point (°C)	Not Available	Boiling Point/Boiling Range (°C)	Not Available
Flash Point (°C)	No Data	Explosive Limit Ranges	Not Available
Auto Ignition Temperature (°C)	Not Available	Decomposition Temperature (°C)	4892°F
Explosive Properties	Not Available	Oxidizing Properties	Not Available
Flammability (Solid, Gas)	Not Available	pH (Value)	Not Available
Evaporation Rate	N/A	Vapor Pressure (mm Hg)	Not Available
Vapor Density (Air=1)	N/A	Density (g/ml)	Not Available
Solubility (Water)	Insoluble	Solubility (Other)	Not Available
Partition Coefficient (n-Octanol/Water)	Not Available	Viscosity (mPa.s)	Not Available

9.2 Other Information Volatile Organic Chemical (VOC) Content – Not available.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity	Slight
10.2 Chemical Stability	Stable under normal conditions.
10.3 Possibility Of Hazardous Reactions	Not available
10.4 Conditions To Avoid	Not available
10.5 Incompatible Materials	Not available
10.6 Hazardous Decomposition Product(s)	Not available

SECTION 11: TOXICOLOGICAL INFORMATION

Substance	CAS No.	LD ₅₀ (Oral, Rat)	LC ₅₀ (Inhalation, Rat)	LD ₅₀ (Dermal, Rat)
Silicon Carbide	409-21-2	NA	NA	NA
Silicon Dioxide	7631-86-9	10000 mg/kg	NE	5000 mg/kg
Crystalline Silica	14808-60-7	NA	lowest published toxic concentration: 43 mg/m ³ /5 hour/9 day- intermittent	NA

Avoid accumulation of dust.

11.1 Information On Toxicological Effects

11.1.2 Mixtures

Acute Toxicity <i>Inhalation</i>	Inhalation of the dust may cause breathlessness, coughing, tightness of the chest and difficulty in breathing.
<i>Skin Contact</i>	Prolonged contact may cause skin abrasion, redness, and itching.
<i>Eye Contact</i>	Eye irritant. May cause tearing and redness.
<i>Ingestion</i>	May cause headache, nausea and vomiting.
Irritation	Causes eye irritation. May cause respiratory irritation. May cause transient irritation.
Corrosivity	Not to be expected.
Sensitisation	No data.
Repeated Dose Toxicity	No data.

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Carcinogenicity	CAS# 14464-46-1 (Crystalline Silica) is a suspect or confirmed carcinogen under ACGIH, NTP IARC, and the state of California.
Mutagenicity	No data.
Toxicity For Reproduction	No data.
11.2 Other Information	None

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity	No data
12.2 Persistence And Degradability	No data
12.3 Bioaccumulative Potential	The product has low potential for bioaccumulation.
12.4 Mobility In Soil	No data
12.5 Results Of PBT And Vpvt Assessment	No data.
12.6 Other Adverse Effects	No data.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste Treatment Methods	Solid or chemical waste generators must determine whether a discarded waste is classified as a hazardous waste. U.S. EPA guidelines for the classifications determination are listed in 40 CFR parts 261.3. Disposal should be in accordance with local, state or national legislation. Containers must not be punctured or destroyed by burning, even when empty.
13.2 Additional Information	None

SECTION 14: TRANSPORT INFORMATION

Land Transport (ADR/RID) (c)(d)		Land Transport (Within USA) (b)(d)	
UN Number	None	UN Number	None
Proper Shipping Name	Not classified as dangerous for transport.	Proper Shipping Name	Not classified as dangerous for transport.
Transport Hazard Class(es)	None	Transport Hazard Class(es)	None
Packing Group	None	Packing Group	None
Hazard Label(s)	None	Hazard Label(s)	None
Environmental Hazards	None	Environmental Hazards	None
Special Precautions For User	None	Special Precautions For User	None
Sea Transport (IMDG) (c)		Air Transport (ICAO/IATA) (c) (d)	
UN Number	None	UN Number	None
Proper Shipping Name	Not classified as dangerous for transport.	Proper Shipping Name	Not classified as dangerous for transport.
Transport Hazard Class(es)	None	Transport Hazard Class(es)	None
Packing Group	None	Packing Group	None
Marine Pollutant	None	Marine Pollutant	None
Special Precautions For User	None	Special Precautions For User	None

(b)- ORM-D may be applicable within the USA for package sizes less than 30kg.
(c)- Consult with transport provider.
(d)- Check relevant regulations for Special Provisions.

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

SECTION 15: REGULATORY INFORMATION**15.1 Safety, Health And Environmental Regulations/Legislation Specific For The Substance Or Mixture****15.1.1 EU Regulations**

Authorisations And/Or Restrictions On Use	Consult the supplier.
European Union (Einecs/Elincs)	All chemicals listed.
German WGK Number	Not available

15.1.2 National regulations**USA**

TSCA (Toxic Substance Control Act)	Silicon Carbide is listed on the TSCA inventory under CAS# 409-21-2.
SARA 311/312 - Hazard Categories	Acute Health, Chronic Health
SARA 302 - Extremely Hazardous Substances	Listed - None
SARA313 - Toxic Chemicals	Listed - None
CERCLA (Comprehensive Environmental Response Compensation and Liability Act)	Listed - None
CAA (Clean Air Act 1990)	Listed - None
CWA(Clean Water Act)	Listed - None
State Right to Know Lists	Listed. - Silicon Dioxide, Quartz, MA, MN, NJ, PA.
Proposition 65 (California) - This product contains the following substance(s) known to the state of California to cause cancer and/or reproductive harm; Silicon Dioxide (silica, crystalline), Quartz. Silicon Dioxide (silica, crystalline), Quartz.	

Canada

WHMIS Classification	Class D Division 2, Subdivision B, Material Having Other Toxic Effects.
Canada (DSL/NDSL)	Listed. - DSL
Canada Ingredient Disclosure List (CIDL)	Listed as required.

15.2 Chemical Safety Assessment

Irritant (Skin, Eye, Respiratory system)

SECTION 16: OTHER INFORMATION

The following sections contain revisions or new statements: 1-16.

LEGEND

ACGIH	American Conference Of Governmental Industrial Hygienists	NA	Not Applicable, Not Available
AICS	Australian Inventory Of Chemical Substances	NIOSH	National Institute For Occupational Safety And Health
ANSI	American National Standards Institute	ND	Not Determined
atm	Atmosphere (Pressure Unit)	NFPA	National Fire Prevention Association
BOD	Biological Oxygen Demand	NTP	National Toxicology Program
CAS	Chemical Abstracts Service	OC	Open Cup
CC	Closed Cup	OSHA	Occupational Safety And Health Administration
CDTA	Chemical Drug And Trafficking Act	Part	Partition
COC	Cleveland Open Cup	PEL	Permissible Exposure Limits
COD	Chemical Oxygen Demand	ppb	Parts Per Billion
coeff.	Coefficient	PPE	Personal Protective Equipment
CFR	Code Of Federal Regulations	ppm	Parts Per Million
CPR	Cardio-Pulmonary Resuscitation	psi	Pounds Per Square Inch
DEA	Drug Enforcement Agency	RCRA	Resource Conservation And Recovery Act
DOT	Department Of Transportation	RQ	Reportable Quantity
DSCl	Dangerous Substances Classification And Labeling	RTK	Right To Know
EEC	European Economic Community	SARA	Superfund Amendments And Reauthorization Act
FDA	Food And Drug Administration	STEL	Short-Term Exposure Limit
HMIS	Hazardous Materials Information System	SUSDP	Standard For The Uniform Scheduling Of Drugs And Poisons (Australia)
IARC	International Agency For Research On Cancer	TCC	Tagliabue Closed Cup
IDLH	Immediate Danger To Life Or Health	TDG	Transportation Of Dangerous Goods
kg	Kilogram	TPQ	Threshold Planning Quantity
L	Liter	TQ	Threshold Quantity
LC ₅₀	Median Lethal Concentration	TSCA	Toxic Substances Control Act
LD ₅₀	Median Lethal Dose	TWA	Time-Weighted Average
LEL	Lower Explosive Limit	UEL	Upper Explosive Limit
mg	Milligram	WES	Workplace Exposure Standard (New Zealand)
mL	Milliliter	WHMIS	Workplace Hazardous Material Information System

References: RTECS, CAS Registry, EINECS/ESIS, Casarett & Doull's Toxicology, Goldfrank's Toxicological Emergencies, Manufacturer Information

Risk Phrases and Safety Phrases

R36/37/38: Irritating to eyes, respiratory system and skin.

R36/38: Irritating to eyes and skin.

S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S36: Wear suitable protective clothing.

Hazard Statement(s) and Precautionary Statement(s)

H315: Causes skin irritation.

H319: Causes serious eye irritation.

H335: May cause respiratory irritation.

P261: Avoid breathing dust/fume/gas/mist/vapours/spray.

P304 + P341: IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.

P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Training Advice: None

Additional Information:

- The accumulation of airborne dust particles may lead to health and safety risks in some cases. The use of good industrial practices will mitigate this risk.
- The health risks from inhalation of dust particles vary; this is due to particle concentration, exposure length, number of exposures and type of particles inhaled. Please read Sections 2,4,6,7 and 8 of the MSDS to understand these potential risks. Wear personal protective equipment and follow storage and handling procedures to maintain a safe workplace.
- In rare instances, combustible dusts may represent a potential explosion hazard when airborne. This hazard is often associated with organic dust such as foodstuffs and coal, but may also occur with mineral products. While the majority of our products would be considered non-combustible, the overall airborne environment should be considered when determining the need for mitigation from this potential hazard. Consult recognized experts when necessary in order to determine any possible hazard.

Please read the MSDS for specific information concerning these hazards, and contact us with any further questions. We appreciate your continued business.

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