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According to 1907/2006/EC (REACH), 1272/2008/EC (CLP),
and US GHS
Carbolon MA

Revision: 06.11.2014

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

| | | |
|------------|--|---|
| 1.1 | Product Identifier | Carbolon MA |
| | GHS Product Identifier | Carbolon MA |
| | Chemical Name | Mixture (Silicon Carbide) |
| | Catalog Numbers | CG60X, CG80X, CG100X, CG120X, CG220X |
| | 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 | |
| | Application of the substance / the mixture | Product Component |
| 1.3 | Details Of The Supplier Of The Safety Data Sheet | |
| | Company Identification | C. R. Laurence. Co., Inc. |
| | Address | 2503 E. Vernon Ave. Los Angeles, CA 90058-1826 |
| | Telephone | (323) 588-1281 |
| 1.4 | Emergency Telephone Number – Chemtrec: 1-800-424-9300 (24 hours) | |

SECTION 2: HAZARDS IDENTIFICATION

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|--------------|--|---|---|
| 2.1 | Classification Of The Substance Or Mixture | | |
| 2.1.1 | Classification according to Regulation (EC) No. 1272/2008 | | |
| | Classifications listed also are applicable to the OSHA GHS Hazard Communication Standard (29CFR1910.1200). | | |
| | Hazard Pictogram(s) |  | Health Hazard |
| | Carc. 1A H350 May cause cancer. Route of exposure: Inhalative. | | |
| 2.1.2 | Classification according to Directive 67/548/EEC & Directive 1999/45/EC | | |
| | Hazard Symbol |  | T; Toxic |
| | R49: May cause cancer by inhalation. | | |
| | Hazard Symbol |  | Xn; Harmful |
| | R48: Danger of serious damage to health by prolonged exposure. | | |
| | 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 | | |
| 2.2.1 | Label Elements 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 Pictogram(s) |  | GHS08 Signal Word(s) DANGER |
| | Hazard-determining components of labelling: Quartz (SiO ₂) | | |
| | Hazard Statement(s) | H350: May cause cancer. Route of exposure: Inhalative. | |
| | Precautionary Statement(s) | P281: Use personal protective equipment as required. P202: Do not handle until all safety precautions have been read and understood. | |

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| | P308 + P313: IF exposed or concerned: Get medical advice/attention. P501: Dispose of contents/containers 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 * - Indicates a long term health hazard from repeated or prolonged exposures. Fire = 0 Reactivity = 0 |
| HMIS Long Term Health Hazard | 14808-60-7 Quartz (SiO ₂) |
| Substances | |
| 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:

| Hazardous Ingredient(s) | %W/W | CAS No. | EC No. | Hazard Pictogram(s) | Hazard Statement(s) and Risk (R) Phrase(s) |
|----------------------------|--------|------------|-----------|---|---|
| Silicon Carbide | 50-100 | 409-21-2 | 206-991-8 | None | substance with a Community workplace exposure limit |
| Quartz (SiO ₂) | 2,5-10 | 14808-60-7 | 238-878-4 |  | T R49; |
| | | | |  | Xn R48 |
| | | | |  | Carc. 1A, H350 |
| Carbon | ≤ 2,5 | 7440-44-0 | 231-153-3 |  | Xi R36/37 |
| | | | |  | Eye Irrit. 2, H319; STOT SE 3, H335 |
| Silicon | ≤ 2,5 | 7440-21-3 | 231-130-8 |  | F R11 |
| | | | |  | Flam. Sol. 2, H228 |

SECTION 4: FIRST AID MEASURES

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|--|---|
| 4.1 Description of First Aid Measures | |
| General Information: | No special measures required. |
| After Inhalation: | Provide oxygen treatment if affected person has difficulty breathing. Supply fresh air; consult doctor in case of complaints. |
| After Skin Contact: | Brush off loose particles from skin. If skin irritation is experienced, consult a doctor. Wash with soap and water. |
| 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 | Slight irritant effect on eyes. Slight irritant effect on skin and mucous membranes. |

| | | |
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| 4.3 | Symptoms And Effects, Both Acute And Delayed | Breathing difficulty. Coughing |
| | Hazards | May cause cancer. Route of exposure: Inhalative. |
| | Indication Of The Immediate Medical Attention And Special Treatment Needed | No further relevant information available. |
| | | |

SECTION 5: FIRE-FIGHTING MEASURES

| | | |
|------------|--|--|
| 5.1 | Extinguishing Media | Use fire extinguishing methods suitable to surrounding conditions. |
| | Suitable Extinguishing Media | |
| 5.2 | Special Hazards Arising From The Substance Or Mixture | No further relevant information available. |
| | Unsuitable Extinguishing Media | None. |
| 5.3 | Advice for Fire-Fighters | 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 | Ensure adequate ventilation Avoid formation of dust. Use respiratory protective device against the effects of fumes/dust/aerosol. 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. 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 | Prevent formation of dust. Do not dry clean dust covered objects and floors. Wash thoroughly with plenty of water. Any unavoidable deposit of dust must be regularly removed. Use only in well ventilated areas. |
| | Information About Fire – and explosion protection | No special measures required. |
| 7.2 | Conditions For Safe Storage, Including Any Incompatibilities: Requirements to be Met by Storerooms and Receptacles: | No special requirements. |
| | Information About Storage in One Common Storage Facility: | Store away from foodstuffs. Store away from oxidizing agents. |
| | 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: | | | |
|---|------------|-------------|---|
| Silicon carbide | 409-21-2 | 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. |
| Quartz (SiO ₂) | 14808-60-7 | 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 |
| | | 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 |
| Silicon | 7440-21-3 | 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 |

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 | |
|--|--|
| 8.2.2 Personal Protective Equipment: | |
| General protective and hygienic measures: | The usual precautionary measures are to be adhered to when handling chemicals. Immediately remove all soiled and contaminated clothing. Do not inhale dust / smoke / mist. Avoid contact with the eyes and skin. Keep away from foodstuffs, beverages and feed. Wash hands before breaks and at the end of work. |
| Respiratory Protection | Use suitable respiratory protective device when high concentrations are present. For spills, respiratory protection may be advisable. |
|  Eye Protection | Safety glasses. |
|  Protection of Hands | Wear protective gloves. |
| Body Protection | Not required under normal conditions of use. Protection may be required for spills. |
| Limitation and supervision of exposure into | No further relevant information available. |

| | | |
|--|---------------------------------|---|
| | the environment | |
| | Risk Management Measures | See Section 7 for additional information. No further relevant information available. |

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

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|------------|--|--|----------------------------------|
| 9.1 | Information On Basic Physical And Chemical Properties | | |
| | Appearance | Granulate | Color |
| | Odor | Odorless | Odor Threshold (ppm) |
| | Melting Point (°C) / Freezing Point (°C) | Not available | Boiling Point/Boiling Range (°C) |
| | Flash Point (°C) | No Data | Explosive Limit Ranges |
| | Auto Ignition Temperature (°C) | Not available | Decomposition Temperature (°C) |
| | Explosive Properties | None | Oxidizing Properties |
| | Flammability (Solid, Gas) | Not available | Ph (Value) |
| | Evaporation Rate | N/A | Vapor Pressure (mm Hg) |
| | Vapor Density (Air=1) | N/A | Density at 20°C: |
| | Solubility (Water) | Insoluble | Solubility (Other) |
| | Partition Coefficient (N-Octanol/Water) | Not available | Viscosity (mPa.s) |
| 9.2 | Other Information | Volatile Organic Chemical (VOC) Content – Not 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 | Reacts with strong alkali. Reacts with strong oxidising agents. |
| 10.4 | Conditions To Avoid | No further relevant information available. |
| 10.5 | Incompatible Materials | No further relevant information available. |
| 10.6 | Hazardous Decomposition Product(s) | Possible in traces. |

SECTION 11: TOXICOLOGICAL INFORMATION

| | | |
|-------------|--|--|
| 11.1 | Information on Toxicological Effects | |
| | Acute toxicity: | |
| | Primary Irritant Effect: | |
| | On the skin: | No irritant effect. |
| | On the eye: | Slight irritant effect on eyes. |
| | Sensitisation: | No sensitizing effects known. |
| | Additional toxicological information: | May cause cancer. Route of exposure: Inhalative. |
| | Acute effects (acute toxicity, irritation, and corrosivity): | Irritating if inhaled, causing symptoms of coughing and shortness of breath. |
| | Repeated dose toxicity: | May cause damage to organs through prolonged or repeated exposure. Repeated exposures may result in skin and/or respiratory sensitivity. |
| | 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 | No further relevant information available. |
| 12.3 Bioaccumulative Potential | No further relevant information available. |
| 12.4 Mobility in Soil | No further relevant information available. |
| Additional ecological information: | |
| General notes: | 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. Danger to drinking water if even small quantities leak into the ground. |
| 12.5 Results of PBT and vPvB Assessment | PBT: Not applicable. vPvB: Not applicable. |
| 12.6 Other Adverse Effects | No further relevant information available. |

SECTION 13: DISPOSAL CONSIDERATIONS

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|--|--|
| 13.1 Waste Treatment Methods Recommendation | Must not be disposed together with household garbage. Do not allow product to reach sewage system. 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. Residual materials should be treated as hazardous. |
| Uncleaned Packaging: Recommendation: | Disposal must be made according to official regulations. |

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 |
| <p><i>(b)- ORM-D may be applicable within the USA for package sizes less than 30kg.</i> <i>(c)- Consult with transport provider.</i> <i>(d)- Check relevant regulations for Special Provisions.</i></p> <p>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</p> | | | |

SECTION 15: REGULATORY INFORMATION

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| 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. | |
| SARA 313 (Specific toxic chemical listings) | None of the ingredients are listed. | |
| TSCA (Toxic Substance Control Act) | All ingredients are listed. | |
| Proposition 65 (California): | | |
| Chemicals known to cause cancer: | 14808-60-7 Quartz (SiO ₂) | |
| 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) | 14808-60-7 Quartz (SiO ₂) | 1 |
| TLV (Threshold Limit Value established by ACGIH) | 409-21-2 silicon carbide | A2 |
| | 14808-60-7 Quartz (SiO ₂) | A2 |
| MAK (German Maximum Workplace Concentration) | 409-21-2 silicon carbide | 2 |
| | 14808-60-7 Quartz (SiO ₂) | 1 |
| NIOSH-Ca (National Institute for Occupational Safety and Health) Canada | 14808-60-7 Quartz (SiO ₂) | |
| Canadian Domestic Substances List (DSL) | All ingredients are listed. | |
| Canadian Ingredient Disclosure list (limit 0.1%) | None of the ingredients are listed. | |
| Canada Ingredient Disclosure list (limit 1%) | 14808-60-7 Quartz (SiO ₂) | |
| Other regulations, limitations and prohibitive regulations | | |
| Substances of very high concern (SVHC) according to REACH, Article 57 | None of the ingredients are listed. | |

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| 15.2 Chemical Safety Assessment | A Chemical Safety Assessment has not been carried out. |
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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.

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 Section 2,4,6,7 and 8 of the SDS 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 the potential hazard. Consult recognized experts when necessary in order to determine any possible hazard.

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

Relevant phrases

- H228 Flammable solid.
- H319 Causes serious eye irritation.
- H335 May cause respiratory irritation
- H350 May cause cancer. Route of exposure: Inhalative.

R11 Highly flammable.
R36/37 Irritating to eyes and respiratory system.
R48 Danger of serious damage to health by prolonged exposure.
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
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
ACGIH: American Conference of Governmental Industrial Hygienists
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstract Service (division of the American Chemical Society)
NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)
DNEL: Derived No-Effect Level (REACH)
PNEC: Predicted No-Effect Concentration (REACH)
Flam. Sol. 2: Flammable solids, Hazard Category 2
Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2
Carc. 1A: Carcinogenicity, Hazard Category 1A
STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3