



MATERIAL SAFETY DATA SHEET **MSDS**

JANESVILLE SAND & GRAVEL CO.

SAND, GRAVEL OR SAND AND GRAVEL

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Revision Date: January 2004

SECTION I PRODUCT AND COMPANY IDENTIFICATION

Manufacturer

Janesville Sand & Gravel Co.

1110 Harding Street
Janesville, WI 53547

Telephone Number: 608-754-7701
FAX Number: 608-754-8555
Web www.jsandg.com

Product Name: SAND, GRAVEL OR SAND AND GRAVEL
Date Prepared: April 1993
EMERGENCY PHONE NUMBER (608) 754-7701

SECTION II HAZARDOUS INGREDIENTS / IDENTITY INFORMATION

| Hazardous Components (Specific Chemical Identity; Common Name(s)) | OSHA PEL (mg/m3) | ACGIH TLV (mg/m3) |
|---|--|-----------------------|
| Sand and Gravel | 15 (total dust) 5 (respirable dust) | 10 (nuisance dust) |
| Quartz | | 0.1 (respirable dust) |

The quartz (crystalline silica; SiO₂) content of this material is generally greater than 1% and varies naturally. The OSHA exposure limits can be calculated with the following formula:

$$\begin{aligned} \text{Total Dust (OSHA)} &= 30 \text{ mg/m}^3 \div (\% \text{ Quartz} + 2) \\ \text{Total Dust (MSHA)} &= 30 \text{ mg/m}^3 \div (\% \text{ Quartz} + 3) \\ \text{Respirable Dust (OSHA and MSHA)} &= 10 \text{ mg/m}^3 \div (\% \text{ Quartz} + 2) \end{aligned}$$

SECTION III PHYSICAL / CHEMICAL CHARACTERISTICS

| | | | |
|--------------------------|-----------|--|-------------|
| Boiling Point: | N/A | Specific Gravity (H ₂ O = 1): | 2.55 – 2.80 |
| Vapor Pressure (mm Hg.): | N/A | Melting Point: | N/A |
| Vapor Density (AIR = 1): | N/A | Evaporation Rate (Butyl Acetate = 1): | N/A |
| Solubility in Water: | Insoluble | | |

Appearance and Odor:
Angular and smooth multicolor particles. No odor.



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SECTION IV FIRE AND EXPLOSION HAZARD DATA

| | | | |
|--|---|--------------------|--------------------|
| Flash Point (Method Used): Not Flammable | Flammable Limits: Not Flammable | LEL: N/A | UEL: N/A |
|--|---|--------------------|--------------------|

Extinguishing Media:
None Required

Special Fire Fighting Procedures:
None Required

Unusual Fire and Explosion Hazards:
Contact with powerful oxidizing agents may cause fire and/or explosion.

SECTION V REACTIVITY

| | |
|-----------------------------|--|
| Stability: Stable | Conditions to Avoid: Avoid contact with incompatible materials (see below) |
|-----------------------------|--|

Incompatibility (Materials to Avoid):
Contact with powerful oxidizing agents such as fluorine, boron trifluorine, chlorine trifluorine, manganese trifluorine, and oxygen difluorine may cause fire and/or explosion. Silica dissolves in hydrofluoric acid producing a corrosive gas-silicon tetrafluorine.

Hazardous Decomposition or Byproducts:
handling may generate respirable dust particles.

Hazardous Polymerization: **Will Not Occur**

SECTION VI HEALTH HAZARD DATA

| | | | |
|--------------------|--------------------------|-------------------|------------------------|
| Route(s) of Entry: | Inhalation YES | Skin NO | Ingestion NO |
|--------------------|--------------------------|-------------------|------------------------|

Health Hazards (Acute and Chronic):

| | |
|-------------------------|--|
| ACUTE – Eyes: | Exposure to dust can cause eye irritation. |
| Skin: | Exposure to dust may irritate the skin. |
| Inhalation: | Inhalation can irritate the nose, throat and lungs causing coughing, sneezing, and shortness of breath. |
| Skin Absorption: | Harmful quantities of components of this product cannot be absorbed through the skin. |

Use of sand and gravel for construction purposes is not believed to cause additional acute toxic effects. However, repeated overexposures to very high levels of respirable crystalline silica (quartz, cristobalite, tridymite) for periods as short as six months have caused acute silicosis. Acute silicosis is a rapidly progressive, incurable lung disease that is typically fatal. Symptoms include, but are not limited to, shortness of breath, cough, fever, weight loss, and chest pain. The symptoms of silicosis tend to worsen with continued exposure to dust containing free silica, with advancing age and with cigarette smoking.

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SECTION VIII CONTROL MEASURES

Respiratory Protection (Specify Type):

For respirable quartz levels that exceed or are likely to exceed an 8hr-TWA of 0.1 mg/m³, a NIOSH approved dust respirator must be worn. For respirable quartz levels that exceed or are likely to exceed an 8hr-TWA of 0.5 mg/m³, A NIOSH approved HEPA filter respirator must be worn. If respirable quartz levels exceed or are likely to exceed an 8hr-TWA of 5 mg/m³, a NIOSH approved positive pressure; full-face respirator or equivalent is required. Respirator use must comply with applicable MSHA or OSHA standards, which include provisions for a user training program, respirator repair and cleaning, respirator fit testing, and other requirements.

Ventilation: Local Exhaust

Provide sufficient ventilation to maintain exposure below applicable exposure levels.

Mechanical (General)

Wet suppression of dust.

Eye Protection:

Safety glasses with side shields should be worn as minimum protection. Dust goggles should be worn when excessively (visible) dusty conditions are present or are anticipated.

Skin Protection:

See "Work/Hygienic Practices" section below.

Other Protective Clothing or Equipment:

Safety shower and eye wash station. Respirable dust or quartz levels should be monitored regularly. Dust and quartz levels in excess of appropriate exposure limits should be reduced by all feasible engineering controls, including, but not limited to, wet suppression, ventilation, process enclosure, and enclosed employee workstations.

Work/Hygienic Practices:

Remove dust from exposed skin with soap and water before eating, drinking, smoking, and using toilet facilities. Wash clothes after each use.

SECTION IX FIRST AID

Eyes: **Immediately flush eye(s) with plenty of clean water for at least 15 minutes, while holding the eyelid(s) open. Occasionally lift the eyelid(s) to ensure thorough rinsing. Beyond flushing, do not attempt to remove material from the eye(s).**

Skin: **Wash with soap and water. Contact a physician if irritation persists or later develops.**

Ingestion: **If person is conscious, give large quantity of water and induce vomiting; however, never attempt to make an unconscious person drink or vomit. Get immediate medical attention.**

Inhalation: **Remove to fresh air. Dust in nose and nasal passages should clear spontaneously. Contact a Physician if irritation persists or later develops.**



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SECTION X

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ABBREVIATIONS:

TLV = threshold limit value
ACGIH = American Conference of Governmental Industrial Hygienists
PEL = permissible exposure limit
OSHA = Occupational Safety and Health Administration
MSHA = Mine Safety and Health Administration
mg/m³ = milligram of substance per cubic meter of air

END OF MSDS DOCUMENT