FLINN SCIENTIFIC INC.

"Your Safer Source for Science Supplies"

Material Safety Data Sheet (MSDS)

MSDS #: 212.50

Revision Date: November 25, 2002

Section 1 — Chemical Product and Company Identification

Carbon Dioxide, Solid

Flinn Scientific, Inc. P.O. Box 219 Batavia, IL 60510 (800) 452-1261

CHEMTREC Emergency Phone Number: (800) 424-9300

Section 2 — Composition, Information on Ingredients

Carbon Dioxide, Solid Synonym: dry ice CAS#: 124-38-9

Section 3 — Hazards Identification

White, snow-like flakes, cubes or chunks.

Extremely cold (-78 C), damaging to skin and tissue. Keep away from mouth and eyes. Skin contact may cause frost-bite and blisters.

FLINN AT-A-GLANCE

Health-0 Flammability-0 Reactivity-0 Exposure-1 Storage-0

0 is low hazard, 3 is high hazard

Section 4 — First Aid Measures

Call a physician, seek medical attention for further treatment, observation and support after first aid. Inhalation: Remove to fresh air at once. If breathing has stopped give artificial respiration immediately.

Eye: Immediately flush with fresh water for 15 minutes.

External: Treat for frost bite.

Internal: Give large quantities of water. Call a physician or poison control at once.

<u>Section 5 — Fire Fighting Measures</u>

Non-flammable, non-combustible solid.

Dusts of various metals are ignitable and explosive when suspended in CO2.

NFPA CODE

None Established

Section 6 — Accidental Release Measures

To dispose, place in an open container in a fume hood or outdoors and allow to dissipate (sublime).

Section 7 — Handling and Storage

Store in vented cooler in well ventilated area.

<u>Section 8 — Exposure Controls , Personal Protection</u>

Avoid contact with eyes, skin and clothing. Wear chemical splash goggles, chemical-resistant gloves and chemical-resistant apron. Use ventilation to keep airborne concentrations below exposure limits. Always wear a NIOSH-approved respirator with proper cartridges or a positive pressure, air-supplied respirator when handling this material in emergency situations (spill or fire). Exposure guidelines: TWA 5000 ppm STEL 3000 ppm (OSHA, NIOSH)

FLINN SCIENTIFIC INC.

"Your Safer Source for Science Supplies"

Material Safety Data Sheet (MSDS)

Carbon Dioxide, Solid

MSDS #: 212.50

Revision Date: November 25, 2002

Section 9 — Physical and Chemical Properties

White, snow-like flakes, cubes or chunks.

Formula: CO2

Formula Weight: 44.0

Density 1.35, m.p. -78.5 C (sublimes)

Section 10 — Stability and Reactivity

Shelf life: Good, if kept cold.

Section 11 — Toxicological Information

Acute effects: Frostbite, nausea, dizziness, headache

Chronic effects: N.A. Target organs: N.A.

ORL-RAT LD50: N.A. IHL-RAT LC50: N.A. SKN-RBT LD50: N.A.

N.A. = Not available, not all health aspects of this substance have been fully investigated.

Section 12 — Ecological Information

Data not yet available.

Section 13 — Disposal Considerations

See Spills and Leaks

Section 14 — Transport Information

Shipping Name: Carbon dioxide, solid Hazard Class: 9, Miscellaneous Hazardous

UN Number: UN1845 N/A = Not applicable

Section 15 — Regulatory Information

TSCA-listed, EINECS-listed (204-696-9).

Section 16 — Other Information

Consult your copy of the Flinn Scientific Catalog/Reference Manual for additional information about laboratory chemicals. This Material Safety Data Sheet (MSDS) is for guidance and is based upon information and tests believed to be reliable. Flinn Scientific Inc. makes no guarantee of the accuracy or completeness of the data and shall not be liable for any damages relating thereto. The data is offered solely for your consideration, investigation, and verification. Flinn Scientific Inc. assumes no legal responsibility for use or reliance upon this data.

FLINN SCIENTIFIC INC.

"Your Safer Source for Science Supplies"

Flinn Chemical Packaging Prevents Accidents

flinn@flinnsci.com www.flinnsci.com P.O. Box 219 Batavia IL 60510 (800) 452-1261 Fax (866) 452-1436