

MATERIAL SAFETY DATA SHEET

SECTION I NAME	
Product	CARBON DISULFIDE
Chemical Synonyms	Carbon Bisulfide
Formula	CS ₂
Unit(s) Size	Up to 2.5 Liters
C.A.S. No.	75-15-0

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES	
Principal Hazardous Component(s)	Carbon Disulfide
(SKIN) notation Indicates absorption through skin will contribute to total exposure. This material must be used with caution. DANGER! EXTREMELY FLAMMABLE.	

SECTION III PHYSICAL DATA	
Melting Point (°F)	110.8°C
Bolling Point (°F)	115°F (46°C)
Vapor Pressure (mm Hg)	400 mm at 28°C
Vapor Density (Air = 1)	2.64
Solubility in Water	0.210 grams at 20°C.
Appearance and Odor	Clear, colorless to faint yellow liquid with strong disagreeable odor.

SECTION IV FIRE AND EXPLOSION HAZARD DATA	
Flash Point (Method Used)	-22°F (-30°C) (cc)
Extinguisher Media	Water; dry chemical (ABC); carbon dioxide (CO ₂).
SPECIAL FIREFIGHTING PROCEDURES	It is best extinguished by the use of water fog or water spray. Completely blanket the fire with water fog or water to prevent re-ignition of the carbon disulfide. Carbon dioxide and dry chemical extinguishers may be used on small fires. An NIOSH-approved self-contained breathing apparatus and full protective clothing should be worn. Autoignition temperature 194°F (90°C).
UNUSUAL FIRE AND EXPLOSION HAZARDS	Carbon disulfide is a highly flammable, volatile liquid with a low flash point, a wide explosive range and an extremely low autoignition temperature. Contact of vapor in concentrations within the explosive range with materials having temperatures of 212°F or more may cause autoignition. Burning carbon disulfide can release sulfur dioxide and carbon monoxide which are also toxic.

SECTION V HEALTH HAZARD DATA	
Threshold Limited Value	TWA (Skin) 10 ppm; 30 mg/m ³ (Air) (ACGIH 1983-84)
Effects of Overexposure	Toxic by oral intake. Inhalation or prolonged contact with skin. The chief toxic effect is on the central nervous system. Acute exposure: result in narcosis and anesthesia followed by respiratory failure.
Emergency and First Aid Procedures	INGESTION: If conscious, give one or two glasses of water to drink. Induce vomiting. Repeat until vomit fluid is clear. Call physician immediately. EYES: Flush eyes with water for at least 15 minutes. Hold eyelids open during flushing. Get immediate medical attention. SKIN: Flush thoroughly with water. Remove contaminated clothing. INHALATION: Remove to fresh air. If breathing has ceased, give artificial respiration.

SECTION VI REACTIVITY DATA	
Stability	Unstable x
Incompatibility (Materials to avoid)	Strong oxidizers.
Hazardous Decomposition Products	In air, this product has an autoignition point of 212° F and burns to form carbon dioxide and carbon monoxide.
Hazardous Polymerization	May Occur x
Conditions to Avoid	Not applicable.

SECTION VII SPILL OR LEAK PROCEDURES	
Steps to be taken in case material is released or spilled	Eliminate all sources of ignition. Keep upwind. Soak up with sand, earth or vermiculite. Carefully sweep up and remove.
Waste Disposal Method	Burn, if local environmental regulations permit, but exert extra care in ignition as this material may be pyrophoric, highly flammable or explosive. Discharge, treatment, or disposal may be subject to federal, state, or local laws.

SECTION VIII SPECIAL PROTECTION INFORMATION	
Ventilation (Specify Type)	Work in a ventilation hood or wear a NIOSH-approved respirator.
Protective Gloves	Rubber
Other Protective Equipment	Goggles and shield, lab coat and apron, vented hood, proper gloves, fire extinguisher, eye wash station.
Eye Protection	Chemical safety glasses

SECTION IX SPECIAL PRECAUTIONS	
Precautions to be Taken in Handling and Storing	Store in a cool, dry, well-ventilated area away from flammable materials and sources of combustion. Fire fighting equipment should be within easy reach. Keep container tightly closed when not in use.
Other Precautions	Read label on container before using. Can react vigorously with oxidizing materials.

FREY SCIENTIFIC

905 HICKORY LANE MANSFIELD OHIO 44905

Approved by U.S. Department of Labor "essentially similar" to form OSHA-20.

MSDS No.
Effective Date

For laboratory use only. Not for drug, food or household use. Keep out of reach of children.

Rev. No. No. 1 Date 1/12/87 Approved Charles W. Secord Chemical Safety Coordinator

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