



Carolina International Sales Co., Inc

MATERIAL SAFETY DATA SHEET

2522 Plantation Center Drive
Matthews, NC 28105
(704) 845 9440

www.ciscochem.com

1. PRODUCT NAME: Acetone
2. CHEMICAL NAME: Acetone
3. SYNONYMS:
4. CAS NUMBER: 67-64-1
5. COMPOSITION Acetone - 100%
6. PROPERTIES: ODOUR & APPEARANCE: clear, colorless, liquid with sharp ketone odour (as nail-polish remover)
ODOUR THRESHOLD: 60ppm (varies from 4ppm-600ppm)
VAPOUR PRESSURE: 185mmHg/24.7kPa (20 c)
EVAPORATION RATE (Butyl Acetate-1): 7.7
VAPOUR DENSITY (air=1): 2
BOILING RANGE: 56 c
MELTING POINT: -94 c
SPECIFIC GRAVITY: 0.792 (20/20 C)
WATER SOLUBILITY: complete, hot or cold water
IN ONTHER SOLVENTS: soluble in most organic solvents
VISCOSITY: 0.32 centipoise (20 c)
7. HAZARDS: Acetone - 100%
Flammable Liquid
IMMEDIATELY DANGEROUS TO LIFE OR HEALTH (IDLH): 2500 ppm
8. FIRE FIGHTING FLASH PONT: -18 c (closed cup)
MEASURES: AUTOIGNITION TEMPERATURE: 465 c
FLAMMABLE LIMITS: 2.6% - 12.8%
COMBUSTION PRODUCTS: carbon monoxide, nitrogen oxides, smoke, part oxidised hydrocarbon fragments
FIRE FIGHTING PROCAUTIONS: foam, dry chemical, water fog, water spray only to cool & dilute, product that float on water- water jets spreads flames; firefighters must wear SCBA
STATIC DISCHARGE: will not accumulate a static charge
MECHANICAL IMPACT: not sensitive
CHEMICAL STABILITY: stable; will not polymerize
REACTIVE WITH: strong oxidizing agents; sodium & barium hydroxides, concentrated nitric acid, chromium trioxide, chromyl chloride, bromine; violent explosive reaction with hexachloromelamine & trichloromelamine
DECOMPOSITION PRODUCTS: apart from hazardous combustion products, toxic fumes on heating
9. PERSONAL PROTECTION HANDS: butyl rubber gloves; otherwise, "Barricade", "Chemtral", "Trellchem", or "Responder" gloves
EYES: safety glasses with side shields
MEASURES: RESPIRATOR: not required if ventilation is adequate (see TWAEV.(2) ABOVE) or use organic vapour cartridge
CLOTHING: butyl rubber apron, boots, long sleeves, if splashing Is anticipated
10. FIRST AID PROCEDURES: SKIN: Wash with soap and plenty of water. Remove contaminated clothing and do not reuse until thoroughly cleaned or laundered.
EYES: Wash eyes with plenty of water, holding eyelids open. Seek medical assistance promptly if there is irritation.

IN CASE OF
TRANSPORT EMERGENCY
CONTACT CHEMTREC
USA: 1-800-424-9300
INTERNATIONAL: 1-703-527-3887



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INHALATION: Remove from contaminated area promptly. **CAUTION:** Rescuer must not endanger himself! If breathing stops, administer artificial respiration and seek medical aid promptly.
INGESTION: Give plenty of water to dilute product. Do not induce vomiting (NOTE below). Keep victim quiet. If vomiting occurs, lower victim's head below hips to prevent inhalation of vomited material. Seek medical help promptly.

11. **EXPOSURE** TWAEV ppm/mg/m³: 500/1200
LIMITS: LD50 ORAL: 3000
SKIN (mg/kg): 7400
LC50 ppm INHALATION: 18,600

12. TOXICOLOGICAL EFFECT OF ACUTE EXPOSURE

INFORMATION: SKIN CONTACT: aggressively drying, mildly irritating
SKIN ABSORPTION: Yes, no toxic effects anticipated by this route partly due to rapid evaporation
EYE CONTACT: irritating liquid, vapour irritating above 500ppm; permanent injury unlikely
INHALATION: irritating; headache, nausea, dizziness, drowsiness, intoxication, weakness
INGESTION: headache, dizziness, drowsiness, intoxication
EFFECTS OF CHRONIC EXPOSURE
GENERAL: prolonged exposure may cause skin cracking and dermatitis; no symptoms or abnormal lab test results seen in 1000 employees working in up to 1000ppm for 5yr
SENSITISING: not a sensitiser
CARCINOGENIC: not a tumorigen; not a carcinogen in either animals or humans
REPRODUCTIVE EFFECT: reproductive toxin in rats at above 50% of the LD50; no known effect in humans (mutagen in tissue culture at levels well over the lethal blood concentration)
SYNERGISTIC WITH: carbon tetrachloride, chloroform, trichloroethylene & other halogenated hydrocarbons; slows alcohol metabolism
ESTIMATED LD50: 3000mg/kg (oral, mouse), 5340mg/kg (oral, rabbit), 5800mg/kg (oral, rat), 8000mg/kg (oral, dog); 7400mg/kg (skin, guinea pig)
ESTIMATED LC50: 18,600ppm (inhalation, mouse), 21,100ppm (inhalation, rat)

13. **ECOLOGICAL** ENVIROINFO: this product cannot accumulate in living tissue, this product is readily and rapidly biodegradable; 84% degradation in 20 days (aerobic) 89% degradation in 3 weeks (anaerobic); half-life for photodegradation in air is expected to be 70-80 days.

14. **DISPOSAL** RCRA REQUIREMENTS: When acetone is a spent solvent, it is classified as a hazardous waste from a nonspecific source (F003), as stated in 40 CFR 261.31, and must be managed according to State and or Federal hazardous waste regulations. As stipulated in 40 CFR 261.33, when acetone, as a commercial chemical product or manufacturing chemical intermediate or an off-specification commercial product or a manufacturing chemical intermediate, becomes a waste, it must be managed according to Federal and/ or State hazardous waste regulations. Also defined as a hazardous waste is any residue, contaminated soil, water, or other debris resulting from the cleanup of a spill, into water or on dry land, of this waste. Generators of small quantities of this waste may qualify for partial exclusion from hazardous waste regulations.
CONSIDERATIONS: NOTE: Inadvertent inhalation of vomited material may seriously damage the lungs. The risk and danger of this is greater than the risk of poisoning through absorption of this relatively low-toxicity product. The stomach should only be emptied under medical supervision, after the installation of an airway to protect the lungs.

15. CARCINOGENIC NE
PROPERTIES &
NOTIFICATIONS:

16. TRANSPORT USA 49 CFR
INFORMATION: Product identification number: UN- 1090
Shipping name: Acetone
Classification: Class 3; Packing group II
Label: 3 - flammable liquid
WHMIS Class: B2; D 2B
Material use: Manufacture of nylon, polyurethane foam, resins, food additive, adhesives, mfg. Of esters (plasticizers)
HMIS (U.S.A.): Health-1, Fire-3, Reactivity-0
Material use: solvent, reagent

17. HANDLING & STORAGE: Store and use in a cool, dry environment, away from sources of ignition, heat and oxidizing agents. Use with adequate ventilation. Ground the container before handling to prevent static discharge, which may cause ignition. Take extreme care to avoid sparks – use non-sparking tools and explosion-proof electrical equipment nearby. Do not cut, drill, weld or grind on or near this container. Avoid prolonged contact with skin and wash work clothes frequently. An eye bath and safety shower should be available near the workplace.

IMMEDIATELY DANGEROUS TO LIFE OR HEALTH (IDLH): 2500 ppm (IDLH based on a 10% of the lower explosive limit for safety considerations even though the relevant toxicological data indicated that irreversible health effects or impairment of escape existed only at higher concentrations.)

ALLOWABLE TOLERANCES: Residues of acetone are exempted from the requirement of a tolerance when used as a solvent, cosolvent in accordance with good agricultural practices as inert (or occasionally active) ingredients in pesticide formulations applied to growing crops or to raw agricultural commodities after harvest.

OSHA STANDARDS: Permissible exposure limit: Table z-1 8-hr Time Weighted avg: 1000ppm (2400mg/cu m). Vacated 1989 OSHA TWA 750ppm (1800mg/cu m); STEL 1000ppm (2400mg/cu m) is still enforced in some states.

NIOSH RECOMMENDATIONS: Recommended exposure Limit: 10 hr Time-Weighted avg: 250ppm (590mg/cu m).

THRESHOLD LIMIT VALUES: 8 hr Time Weighted avg (TWA): 500ppm; 15min Short Term Exposure Limit (STEL) : 750ppm. A4; Not classifiable as a human carcinogen. Biological Exposure Index (BEI): Determinant acetone in urine, Sampling time: end of shift; BEI: 50 mg/l . The determinant is nonspecific, since it is also observed after exposure to other chemicals.

OTHER OCCUPATIONAL PERMISSIBLE LEVELS: Exposure limits: France, TWA limits – 1, 800 mg/cu m (1983).

ATMOSPHERIC STANDARDS: This action promulgates standards of performance for equipment leaks of Volatile Organic Compounds (VOC) in the Synthetic Organic manufacturing industry (SOCMI). These standards implement Section 111 of the Clean Air Act and are based on the Administrator's termination that emissions from the SOCMI cause, or contribute significantly to air pollution which may reasonably be anticipated to endanger public health or welfare. The intended effect of these standards is to require all newly constructed, modified, and reconstructed SOCMI process units to use the best demonstrated system of continuous emission reduction of equipment leaks of VOC , considering costs, non air quality health and environmental impact and energy requirements. Acetone is produced as an intermediate or final product, by process units covered under this subpart. These standards of performance become effective upon promulgation but apply to affective facilities for which construction or modification commenced after January



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5, 1981.

STATE DRINKING WATER GUIDELINES: FLORIDA 700 ug/l; MASSACHUSETTS 3000 ug/l; MINNESOTA 700 UG/L; NEW HAMPSHIRE 700 ug/l; WISCONSON 1000 ug/l.

CERCLA REPORTABLE QUANTITIES: Persons in charge of vessels or facilities are required to notify the National Response Center (NRC) Immediately, when there is a release of this designated hazardous substance, in an amount equal to or greater than its reportable quantity of 5000 lb or 2270 kg. The toll free number of the NRC is (800) 424-8820; In the Washington D.C metropolitan area (202) 426-2675. the rule for determining when notification is required is stated in 40 CFR 302.4 (section IV. D.3.b).

18. ACCIDENTAL LEAK PRECAUTION: dyke to control spillage and prevent environmental contamination. Fire Potential: blanket spill with foam as a precaution against accidental ignition. Take extreme care to avoid sparks – do not operate (turn on or Of) electrical appliances near spill, unless explosion proof
- RELEASE MEASURES: HANDLING SPILL: ventilate contaminated area; recover free liquid with explosion-proof; absorb residue on an inert, sorbent, pick up using non smoking plastic or aluminium shovel, & store in closed containers for disposal.