

04/02/12

MATERIAL SAFETY DATA SHEET

CLEANING ALCOHOL

SECTION 1 -- IDENTIFICATION**Trade Name & Synonym:** Cleaning Alcohol**Product No.** CH073**Supplier's Name:** Lonestar Maintenance Chemicals**Emergency Phone:** 1-800-721-2448**Address:** P.O. Box 209, Buna, TX 77612**SECTION 2 – COMPOSITION/INFORMATON ON INGREDIENTS**

Hazardous Components	CAS-No.	Concentration
Isopropanol	67-63-0	> = 60 - < 70%

SECTION 3 – HAZARD IDENTIFICATION**Emergency overview:** Appearance – liquid

WARNING! FLAMMABLE LIQUID AND VAPOR, MAY AFFECT THE CENTRAL NERVOUS SYSTEM CAUSING DIZZINESS, HEADACHE OR NAUSEA. MAY CAUSE EYE IRRITATION. PROLONGED OR REPEATED CONTACT MAY DRY THE SKIN AND CAUSE IRRITATION AND BURNS.

Potential Health Effects	
Exposure routes	Inhalation, skin absorption, skin contact, eye contact, ingestion
Eye contact	Can cause eye irritation. Symptoms include stinging, tearing, redness and swelling of eyes.
Skin contact	May cause mild skin irritation. Symptoms may include redness and burning of skin. Prolonged or repeated contact may dry the ski. Symptoms may include redness, burning and drying and cracking of skin, skin burns and other skin damage.
Ingestion	Swallowing small amounts of this material during normal handling is not likely to cause harmful effects. Swallowing large amounts may be harmful. This material can get into the lungs during swallowing or vomiting. This results in lung inflammation and other lung injury.
Inhalation	Breathing of vapor or mist is possible. Breathing small amounts of this material during normal handling is not likely to cause harmful effects. Breathing large amounts may be harmful. Symptoms are not expected at air concentrations below the recommended exposure limits. (See Section 8, if applicable.)
Aggravated medical condition	Pre-existing disorders of the following organs (or organ systems) may be aggravated by exposure to this material: skin, lung (for example, asthma-like conditions) and kidney.
Symptoms	Signs and symptoms of exposure to this material through breathing, swallowing and/or passage of the material through the skin may include: stomach or intestinal upset (nausea, vomiting, diarrhea), irritation (nose, throat, airways). Central nervous system depression (dizziness, drowsiness, weakness, fatigue, nausea, headache, unconsciousness), lowered blood pressure, mild, temporary changes in the liver, effects on heart rate, respiratory depression (slowing of the breathing rate), lack of coordination, confusion, lung edema (fluid buildup in the lung tissue), kidney damage or coma.
Target organs	Exposure to this material (or a component) has been found to cause kidney damage in male rats. The mechanism by which this toxicity occurs is specific to the male rat and the kidney effects are not expected to occur in humans. Breathing isopropanol vapors has caused damage to the lining of the middle ear in experimental animals. The relevance of this finding to humans is uncertain. Overexposure to this material (or its components) has been suggested as a cause of the following effects in laboratory animals: mild, reversible liver effects.
Carcinogenicity	This material is not listed as a carcinogen by the International Agency for Research on Cancer (IARC), the National Toxicology Program (NTP) or the Occupational Safety and Health Administration (OSHA).
Reproductive hazard	This material (or a component) has been shown to cause harm to the fetus in laboratory animal studies. Harm to the fetus occurs only at exposure levels that harm the pregnant animal. The relevance of these findings to humans is uncertain.

SECTION 4 – FIRST-AID MEASURES

Eyes	If symptoms develop, immediately move individual away from exposure and into fresh air. Flush eyes gently with water for at least 15 minutes while holding eyelids apart; seek immediate medical attention.
Skin	Remove contaminated clothing. Wash exposed area with soap and water. If symptoms persist, seek medical attention. Launder clothing before reuse.
Ingestion	Seek medical attention. If individual is drowsy or unconscious, do not give anything by mouth; place individual on the left side with the head down. Contact a physician, medical facility. Or poison control center for advice about whether to induce vomiting. If possible, do not leave individual unattended.

Inhalation	If symptoms develop, move individual away from exposure and into fresh air. If symptoms persist, seek medical attention. If breathing is difficult, administer oxygen. Keep person warm and quiet; seek immediate medical attention.
Notes to Physician:	
Hazards	Administration of high doses of isopropanol in combination with known hepatotoxic chemicals resulted in enhanced liver toxicity in experimental animals. This material is an aspiration hazard. Potential danger from aspiration must be weighed against possible oral toxicity (See Section 2 – Swallowing) when deciding whether to induce vomiting.
Treatment	No information available.

SECTION 5 – FIRE-FIGHTING MEASURES

Suitable extinguishing media:	Dry chemical, carbon dioxide (CO ₂), water spray
Hazardous combustion products:	Carbon dioxide and carbon monoxide
Precautions for fire-fighting:	Material is volatile and readily give off vapors which may travel along the ground or be moved by ventilation and ignited by pilot lights, flames, sparks, heaters, smoking, electric motors, static discharge or other ignition sources at locations near the material handling point. Never use welding or cutting torch on or near drum (even empty) because product (even just residue) can ignite explosively. Wear full firefighting turn-out gear (full Bunker gear), and respiratory protection (SCBA). Water may be ineffective for extinguishment unless used under favorable conditions by experienced fire fighters. Use water spray to cool fire exposed containers and structures until fire is out if it can be done with minimal risk. Avoid spreading burning material with water used for cooling purposes.
NFPA Flammable and Combustible Liquids Classification:	Flammable Liquid Class IB

SECTION 6 -- ACCIDENTAL RELEASE MEASURES

Personal precautions	For personal protection see Section 8. Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed. Ensure adequate ventilation. Eliminate all ignition sources (flares, flames including pilot lights, electrical sparks). Pay attention to the spreading of gases especially at ground level (heavier than air) and to the direction of the wind.
Environmental precautions	Prevent spreading over a wide area (e.g. by containment or oil barriers). Do not let product enter drains. Do not flush into surface water of sanitary sewer system. Local authorities should be advised if significant spillages cannot be contained.
Methods for cleaning up	Contain spillage and then collect with non-combustible absorbent material (e.g., sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local/national regulations (see Section 13).
Other information	Comply with all applicable federal, state and local regulations. Suppress (knock down) gases/vapors/mists with a water spray jet.

SECTION 7 – HANDLING AND STORAGE

Handling: Containers of this material may be hazardous when emptied. Since emptied containers retain product residues (vapor, liquid and/or solid), all hazard precautions given in the data sheet must be observed. Static ignition hazard can result from handling and use. Electrically bond and ground all containers, personnel and equipment before transfer or use of material. Special precautions may be necessary to dissipate static electricity for non-conductive containers. Use proper bonding and grounding during product transfer as described in Nation Fire Protection Association document NFPA 77 - Warning. Sudden release of hot organic chemical vapors or mists from process equipment operating at elevated temperature and pressure, or sudden ingress of air into vacuum equipment, may result in ignitions without the presence of obvious ignition sources. Published “autoignition” or “ignition” temperature values cannot be treated as safe operating temperatures in chemical processes without analysis of the actual process conditions. Any use of this product in elevated temperature processes should be thoroughly evaluated to establish and maintain safe operating conditions.

Storage: Store in a cool, dry, ventilated area, away from incompatible substances.

SECTION 8 – EXPOSURE CONTROLS AND PERSONAL PROTECTION**Isopropanol:**

ACGIH	Time weighted average	200 ppm
ACGIH	Short term exposure limit	400 ppm

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NIOSH	Recommended exposure limit (REL)	400 ppm
NIOSH	Recommended exposure limit REL):	980 mg/m3
NIOSH	Short term exposure limit	500 ppm
NIOSH	Short term exposure limit	1.225 mg/m3
OSHA Z1	Permissible exposure limit	400 ppm
OSHA Z1	Permissible exposure limit	980 mg/m3

General advice	These recommendations provide general guidance for handling this product. Personal protective equipment should be selected for individual applications and should consider factors which affect exposure potential, such as handling practices, chemical concentrations and ventilation. It is ultimately the responsibility of the employer to follow regulatory guidelines established by local authorities.
Exposure controls	Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below exposure guidelines (if applicable) or below levels that cause known, suspected or apparent adverse effects.
Eye protection	Wear chemical splash goggles when there is the potential for exposure of the eyes to liquid, vapor or mist.
Skin and body protection	Wear normal work clothing including long pants, long-sleeved shirts and foot covering to prevent direct contact of the product with the skin. Launder clothing before reuse. If skin irritation develops, contact your facility health and safety professional or your local safety equipment supplier to determine the proper personal protective equipment for your use. Wear resistant gloves consult your safety equipment supplier).
Respiratory protection	A NIOSH-approved air-purifying respirator with an appropriate cartridge and/or filter may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits (if applicable) or if overexposure has otherwise been determined. Protection provided by air-purifying respirators is limited. Use a positive pressure, air-supplied respirator if there is any potential for uncontrolled release, exposure levels are not known or any other circumstances where an air-purifying respirator may not provide adequate protection.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Physical state	liquid
Form	no data available
Color	no data available
Odor	no data available
Boiling point/boiling range	180.5° F / 82.5° C @ 1,013.23 hPa Calculated Phase Transition Liquid/Gas
Melting point/range	no data available
Sublimation point	no data available
pH	no data available
Flash point	54.99° F / 12.77° C Tag closed cup
Ignition temperature	no data available
Evaporation rate	(>) 2 Ethyl Ether
Lower explosion limit/Upper explosion limit	2.5% (V) / 12% (V)
Particle size	no data available
Vapor pressure	60.427 hPa @ 77° F / 25° C Calculated Vapor Pressure
Relative vapor density	(>) 2 AIR = 1
Density	0.854 g/cm3 @ 77.00° F / 25.00° C -- 7.11 lb/gal @ 77° F / 25° C
Bulk density	no data
Water Solubility	no data available
Solubility(ies)	no data available
Partition coefficient: n-octanol/water	no data available
Log Pow	no data available
Autoignition temperature	no data available
Viscosity, dynamic	no data available
Viscosity, Kinematic	no data available
Solids in solution	no data available
Decomposition temperature	no data available
Burning number	no data available
Dust explosion constant	no data available
Minimum ignition energy	no data available

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SECTION 10 – STABILITY AND REACTIVITY

Stability	Stable
Conditions to avoid	Heat, flames and sparks
Incompatible products	Acids, aldehydes, alkalis, amines, ethylene oxide, halogenated hydrocarbons, halogens, isocyanates, strong oxidizing agents. Do not use with aluminum equipment at temperatures above 120° F.
Hazardous decomposition products	Carbon dioxide and carbon monoxide.
Hazardous reactions	Product will not undergo hazardous polymerization.
Thermal decomposition	No data available.

SECTION 11 – TOXICOLOGICAL INFORMATION

Acute oral toxicity	
Isopropanol	: no data available
Acute inhalation toxicity	
Isopropanol	: LC 50 Rat: 16000 ppm; 4 h
Acute dermal toxicity	
Isopropanol	: no data available

Flammable Liquid Class IB

SECTION 12 – ECOLOGICAL INFORMATION

Biodegradability	
Isopropanol	: no data available
Bioaccumulation	
Isopropanol	: no data available
ECOTOXICITY EFFECTS	
Toxicity to fish	
Isopropanol	: 96 h LC 50 Fathead Minnow (pimephales Promelas): 5,770.00 – 7,450.00 mg/l Method: flow through; mortality
Toxicity to daphnia and other aquatic invertebrates	
Isopropanol	: 24 h static test LC 50 Water Flea (Daphnia Magna): > 10,000.00 mg/l Method: static mortality
Toxicity to algae	
Isopropanol	: no data available
Toxicity to bacteria	
Isopropanol	: no data available
Biochemical Oxygen Demand (BOD)	
Isopropanol	: no data available
Chemical Oxygen Demand (COD)	
Isopropanol	: no data available
Additional ecological information	
Isopropanol	: no data available

SECTION 13 – DISPOSAL CONSIDERATIONS**Waste disposal methods:** Dispose of in accordance with all applicable local, state and federal regulations.**SECTION 14 – TRANSPORT INFORMATION****Mexican Regulation for the Land Transport of Hazardous Materials and Wastes:**

ID No.: UN - 1219 Proper Shipping Name: Isopropanol Solution *Hazard Class: 3
Packing Group: II Marine Pollutant/Ltd. Qty.: N/A

International Air Transport Association – Passenger:

ID No.: UN - 1219 Proper Shipping Name: Isopropanol Solution *Hazard Class: 3
Packing Group: II Marine Pollutant/Ltd. Qty.: N/A

International Air Transport Association – Cargo:

ID No.: UN - 1219 Proper Shipping Name: Isopropanol Solution *Hazard Class: 3
Packing Group: II Marine Pollutant/Ltd. Qty.: N/A

International Maritime Dangerous Goods:

ID No.: UN - 1219 Proper Shipping Name: Isopropanol Solution *Hazard Class: 3
Packing Group: II Marine Pollutant/Ltd. Qty.: N/A

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Transport Canada – Inland Waterways:

ID No.: UN - 1219 Proper Shipping Name: Isopropanol Solution *Hazard Class: 3
 Packing Group: II Marine Pollutant/Ltd. Qty.: N/A

Transport Canada – Rail

ID No.: UN - 1219 Proper Shipping Name: Isopropanol Solution *Hazard Class: 3
 Packing Group: II Marine Pollutant/Ltd. Qty.: N/A

Transport Canada – Road:

ID No.: UN - 1219 Proper Shipping Name: Isopropanol Solution *Hazard Class: 3
 Packing Group: II Marine Pollutant/Ltd. Qty.: N/A

U.S. DOT – Inland Waterways:

ID No.: UN - 1219 Proper Shipping Name: Isopropanol Solution *Hazard Class: 3
 Packing Group: II Marine Pollutant/Ltd. Qty.: N/A

U.S. DOT – Rail:

ID No.: UN - 1219 Proper Shipping Name: Isopropanol Solution *Hazard Class: 3
 Packing Group: II Marine Pollutant/Ltd. Qty.: N/A

U.S. DOT – Road:

ID No.: UN - 1219 Proper Shipping Name: Isopropanol Solution *Hazard Class: 3
 Packing Group: II Marine Pollutant/Ltd. Qty.: N/A

***ORM = ORM-D, CBL = COMBUSTIBLE LIQUID**

Dangerous goods descriptions (if indicated above) may not reflect quantity, end-use or region-specific exceptions that can be applied. Consult shipping documents for descriptions that are specific to the shipment.

SECTION 15 – REGULATORY INFORMATION**California Prop. 65**

This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.

SARA Hazard Classification

Fire hazard. Acute Health Hazard.

SARA 313

This material does not contain any chemical components with known CAS numbers that exceed the threshold (DeMinimis) reporting levels established by SARA Title III, Section 313.

New Jersey RTK Label Information

Isopropanol 67-73-0
 Water 7732-18-5

Pennsylvania RTK Label Information

Isopropanol 67-73-0
 Water 7732-18-5

Notification Status:

EU. EINECS y (positive listing)
 US. Toxic Substances Control Act y (positive listing)
 Australia. Industrial Chemical (Notification and Assessment) Act y (positive listing)
 Canada. Canadian Environmental Protection Act (CEPA)
 Domestic Substances List (DSL). (Can. Gas. Part II, Vol. 133) y (positive listing)
 Japan. Kashin-Hou Law List y (positive listing)
 Korea. Toxic Chemical Control Law (TCCL) List y (positive listing)
 Phillipines. The Toxic Substances and Hazardous Nuclear
 Waste Control Act y (positive listing)
 China. Inventory of Existing Chemical Substances y (positive listing)

	HMIS	NFPA
Health	2	2
Flammability	3	3
Physical hazards	0	
Instability		0
Specific hazard	---	---

SECTION 16 – OTHER INFORMATION

The information presented herein, while not guaranteed, was prepared by competent technical personnel and is true and accurate to the best of our knowledge. While our technical personnel will be happy to respond to questions regarding safe handling and use procedures, safe handling and use remains the responsibility of the user. No suggestions for use are intended as, and nothing herein shall be construed as a recommendation to infringe any existing patents or violate any federal, state or local laws, rules, regulations or ordinances.
