



Specifications for Acetone

Parameter	Value
Molecular Formula	C ₃ H ₆ O
Mol Wt	58.08
CAS #	[67-64-1]
Description	Clear colourless liquid
Sp gravity @ 27/27 deg cel	0.784 – 0.786
Flash point in deg cel	(-) 20
Distillation range in deg cel	56.1 ± 1
Purity (%)	99.5 min
Water (%)	0.5 max
Colour on Pt-Co scale	5 max
Benzene content in ppm	10 max

Uses:

Industry	Applications
Coating	As solvent in cellulose nitrate based coatings As solvent in vinyl/acrylic lacquers
Process and Manufacturing	As solvent, solvent-vehicle, crystallization and extraction solvent In MFR of Diacetone Alcohol In MFR of dissolved Acetylene Gas
Printing ink	As solvent in inks
Pharma	As intermediate in mfr of drugs and pharmaceuticals like penterol-2-3 methyl butanol-1, chloroform, bromoform, iodoform, ionone, sulphonal, trional, vitamins and sulfamethaxazole As extraction solvent for drugs like pancreatin, pepsin, tannin chlorophyll
Polymer	Raw material for methyl methacrylate, and Bisphenol-A
Colourants	In MFR of isophorone and many dyestuff Intermediates
Textile	In MFR of acetate fibres
Explosives	In MFR of cordite, dynamite and TNT
Oil	In extraction of natural oils, fats and essential oil



MATERIAL SAFETY DATA SHEET


Acetone

Section 1 - Chemical Product and Company Identification

MSDS Name:	Acetone
Synonyms:	2-Propanone
Company Identification:	Hazel Mercantile Limited
Company Identification: (INDIA)	701/712 A, Embassy Centre, Nariman Point, Mumbai - 400 021.
For information in the INDIA, call:	+91 - 22 - 2282 4444 (50 Lines)

Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name:	%	EINECS#
67-64-1	Acetone	>99%	200-662-2

Hazard Symbols:	XI F
	
Risk Phrases:	11 36 66 67

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Highly flammable. Irritating to eyes. Repeated exposure may cause skin dryness or cracking. Vapours may cause drowsiness and dizziness.

Potential Health Effects

Eye:	Produces irritation, characterized by a burning sensation, redness, tearing, inflammation, and possible corneal injury.
Skin:	Exposure may cause irritation characterized by redness, dryness, and inflammation. Repeated or prolonged exposure may cause drying and cracking of the skin.
Ingestion:	May cause irritation of the digestive tract. May cause central nervous system depression, kidney damage, and liver damage. Symptoms may include: headache, excitement, fatigue, nausea, vomiting, stupor, and coma.
Inhalation:	Causes respiratory tract irritation. May cause liver and kidney damage. May cause motor incoordination and speech abnormalities. May cause narcotic effects in high concentration. Inhalation of vapors may cause drowsiness and dizziness.
Chronic:	Prolonged or repeated skin contact may cause dermatitis. Chronic inhalation may cause effects similar to those of acute inhalation.



Section 4 - First Aid Measures

Eyes:	Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.
Skin:	Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid if irritation develops or persists.
Ingestion:	If victim is conscious and alert, give 2-4 cupfuls of milk or water. Get medical aid immediately. Wash mouth out with water.
Inhalation:	Get medical aid immediately. Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.
Notes to Physician:	

Section 5 - Fire Fighting Measures

General Information:	Containers can build up pressure if exposed to heat and/or fire. As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Vapors can travel to a source of ignition and flash back. Will burn if involved in a fire. Use water spray to keep fire-exposed containers cool. Vapor may cause flash fire.
Extinguishing Media:	For small fires, use dry chemical, carbon dioxide, water spray or alcohol-resistant foam.

Section 6 - Accidental Release Measures

General Information:	Use proper personal protective equipment as indicated in Section 8.
Spills/Leaks:	Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Wear appropriate protective clothing to minimize contact with skin. Remove all sources of ignition. Use a spark-proof tool.

Section 7 - Handling and Storage

Handling:	Use with adequate ventilation. Use spark-proof tools and explosion proof equipment. Avoid breathing dust, vapor, mist, or gas. Avoid contact with skin and eyes. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous.
Storage:	Keep away from heat, sparks, and flame. Keep away from sources of ignition. Store in a cool, dry place. Do not store in direct sunlight. Store in a tightly closed container. Flammables-area.



Section 8 - Exposure Controls, Personal Protection

Engineering Controls:

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

Exposure Limits

CAS# 67-64-1:

United Kingdom, WEL - TWA: 500 ppm TWA; 1210 mg/m³ TWA United Kingdom, WEL - STEL: 1500 ppm STEL; 3620 mg/m³ STEL
United States OSHA: 1000 ppm TWA; 2400 mg/m³ TWA
Belgium - TWA: 500 ppm VLE; 1210 mg/m³ VLE Belgium - STEL: 1000 ppm VLE; 2420 mg/m³ VLE
France - VME: 500 ppm VME; 1210 mg/m³ VME
Germany: 500 ppm TWA; 1200 mg/m³ TWA
Japan: 200 ppm OEL; 470 mg/m³ OEL
Malaysia: 500 ppm TWA; 1187 mg/m³ TWA
Netherlands: 750 ppm MAC; 1780 mg/m³ MAC
Russia: 200 mg/m³ TWA (vapour)
Spain: 500 ppm VLA-ED; 1210 mg/m³ VLA-ED

Personal Protective Equipment

Eyes:	Wear chemical splash goggles.
Skin:	Wear appropriate protective gloves to prevent skin exposure.
Clothing:	Wear appropriate protective clothing to prevent skin exposure.
Respirators:	Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Section 9 - Physical and Chemical Properties

Physical State:	Clear liquid
Color:	APHA: 10 max
Odor:	acetone-like
pH:	Not available
Vapor Pressure:	247mbar @20 deg C
Viscosity:	0.32 mPa s @20 deg C
Boiling Point:	56 deg C @760mmHg (132.80°F)
Freezing/Melting Point:	-95 deg C (-139.00°F)
Autoignition Temperature:	465 deg C (869.00 deg F)
Flash Point:	-20 deg C (-4.00 deg F)
Explosion Limits: Lower:	2.1 Vol %
Explosion Limits: Upper:	13 Vol %
Decomposition Temperature:	Not available
Solubility in water:	Soluble
Specific Gravity/Density:	0.790
Molecular Formula:	C ₃ H ₆ O



Molecular Weight:	58.08
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Section 10 - Stability and Reactivity

Chemical Stability:	Stable under normal temperatures and pressures.
Conditions to Avoid:	Incompatible materials, ignition sources, moisture, exposure to air, temperatures above 220°C, attacks some plastics, rubber, and coatings.
Incompatibilities with Other Materials	Oxidizing agents, reducing agents, bases, acetic acid, nitric acid, sulfuric acid, May form explosive/incompatible mixtures with a wide range of substances., hydrogen peroxide, chromyl chloride, nitrosyl perchlorate, hexachloromelamine, peroxomonosulfuric acid, chromic anhydride, sulfur dichloride, carbon, potassium tert-butoxide.
Hazardous Decomposition Products	Carbon monoxide, carbon dioxide.
Hazardous Polymerization	Will not occur.

Section 11 - Toxicological Information

RTECS#:	CAS# 67-64-1: AL3150000
LD50/LC50:	RTECS: CAS# 67-64-1: Dermal, guinea pig: LD50 = >9400 uL/kg; Draize test, rabbit, eye: 20 mg Severe; Draize test, rabbit, eye: 20 mg/24H Moderate; Draize test, rabbit, eye: 10 uL Mild; Draize test, rabbit, skin: 500 mg/24H Mild; Inhalation, mouse: LC50 = 44 gm/m ³ /4H; Inhalation, rat: LC50 = 50100 mg/m ³ /8H; Oral, mouse: LD50 = 3 gm/kg; Oral, rabbit: LD50 = 5340 mg/kg; Oral, rat: LD50 = 5800 mg/kg;
Carcinogenicity:	Acetone - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.
Other:	See actual entry in RTECS for complete information.

Section 12 - Ecological Information

Ecotoxicity:	Daphnia: Daphnia: EC50: 12600-12700 mg/L; 48h; . Fish: Bluegill/Sunfish: LC50: 8300 mg/L; 96h; . Bacteria: Pseudomonas putida: EC50: 1700 mg/L; 16h;
Other:	On soil, substance volatilizes and biodegrades. Biodegradable. Do not empty into drains. Log Pow: -0.24

Section 13 - Disposal Considerations

Dispose of in a manner consistent with federal, state, and local regulations.

Section 14 - Transport Information

	IATA	IMO	RID/ADR
Shipping Name:	ACETONE	ACETONE	ACETONE
Hazard Class:	3	3	3
UN Number:	1090	1090	1090
Packing Group:	II	II	II



USA RQ: CAS# 67-64-1: 5000 lb final RQ; 2270 kg final RQ

Section 15 - Regulatory Information

European/International Regulations European Labeling in Accordance with EC Directives Hazard Symbols: XI F
Risk Phrases: <ul style="list-style-type: none">➤ R 11 Highly flammable.➤ R 36 Irritating to eyes.➤ R 66 Repeated exposure may cause skin dryness or cracking.➤ R 67 Vapours may cause drowsiness and dizziness.
Safety Phrases: <ul style="list-style-type: none">➤ S 9 Keep container in a well-ventilated place.➤ S 16 Keep away from sources of ignition - No smoking.➤ S 26 In case of contact with eyes rinse immediately with plenty of water and seek medical advice.
WGK (Water Danger/Protection) <ul style="list-style-type: none">➤ CAS# 67-64-1: 0
Canada <ul style="list-style-type: none">➤ CAS# 67-64-1 is listed on Canada's DSL List
US Federal <ul style="list-style-type: none">➤ TSCA➤ CAS# 67-64-1 is listed on the TSCA Inventory.

Section 16 - Other Information

MSDS Creation Date:	August 04, 2007
Revision #0	March 12, 2008
Revisions were made in Sections:	General Revisions

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