Material Safety Data Sheets

Revision 2

1. IDENTIFICATION

Product Name	**Acetone**
Other Names	2-Propanone; Dimethyl Ketone; Ketone; Ketone Propane
Code No	100-AC-1
Uses	Solvents, raw material for cleaning agents and disinfectants, for washing and cleaning agents, raw material for cosmetic agents, raw material for pharmaceutical products, raw material for printing inks and printing ink additives, raw material for adhesives and binders, raw material for welding and soldering aids, paint related material.
Chemical Family	No Data Available
Chemical Formula	C_3H_6O
Chemical Name	Acetone
Product Description	No Data Available
Company	Arman sina.co
Contact Information	info@armansina.com www.armansina.com

2. HAZARD IDENTIFICATION

Hazard Categories	Highly Flammable
	Irritant
Risk Phrases	Highly flammable.
	Irritating to eyes.
	Repeated exposure may cause skin dryness and cracking.
	Vapours may cause drowsiness and dizziness.
Safety Phrases	Keep away from sources of ignition - No smoking.
	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
	If swallowed, seek medical advice immediately and show this container or label.
	Keep container in a well-ventilated place.

Symbol

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients

Chemical Entity	Formula	CAS Number	Proportion
Acetone	C_3H_6O	67-64-1	100.0 %

4. FIRST AID MEASURES

Description of necessary measures according to routes of exposure

Swallowed	Rinse mouth with water. If victim is conscious and alert, give 1-2 glasses of water. Do not induce vomiting. Risk of lung damage. Never give anything by mouth to an unconscious or convulsing person. Call a physician immediately.
Eye	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
Skin	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Wash contaminated clothing before re-use. If skin irritation persists, call a physician.
Inhaled	Remove victim to fresh air. If cough or other respiratory symptoms develop, get medical attention. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.
Advice to Doctor	Treat symptomatically based on judgement of doctor and individual reactions of patient.
Medical Conditions Aggravated by Exposure	No information available on medical conditions aggravated by exposure to this product. Chronic: Long Term Effects: Long term exposure by swallowing or repeated inhalation, may cause degenerative changes in the liver and other organs. Exposure to acetone in the work setting may add to any health effects caused by intake of alcoholic drinks, particularly in regard to narcotic and liver effects.

5. FIRE FIGHTING MEASURES

Flammability Conditions	Product is a highly flammable liquid.
Extinguishing Media	In case of fire, appropriate extinguishing media include water spray, alcohol resistant foam, dry chemical, and carbon dioxide (CO2). Do NOT use straight streams of water. Use water to cool exposed containers.
Hazardous Products of Combustion	Highly flammable liquid. Heating can cause expansion or decomposition leading to violent rupture of containers. Incompatible with Strong oxidizing agents, halogenated compounds and sources of ignition. Burning can produce carbon dioxide and water, incomplete combustion can produce carbon monoxide.
Personal Protective Equipment	Fire fighters should wear a positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots and gloves) or chemical splash suit. Clear fire area of all non-emergency personnel. Stay upwind. Keep out of low areas. Eliminate ignition sources. Move fire exposed containers from fire area if it can be done without risk. Do NOT allow fire fighting water to reach waterways, drains or sewers. Store fire fighting water for treatment.
Flash Point	
Lower Explosion Limit	2.6 %
Upper Explosion Limit	12.8 %
Auto Ignition Temperature	
Hazchem Code	YE

6. ACCIDENTAL RELEASE MEASURES

General Response Procedure	Shut off all possible sources of ignition. Personnel involved in the clean up should wear full protective clothing as listed in section 8. Avoid accidents, clean up immediately. Evacuate all unnecessary personnel. Increase ventilation. Avoid walking through spilled product as it is slippery when spilt. Stop leak if safe to do so. Prevent liquid entering sewers, basements and work pits; vapor may create explosive atmosphere. Do NOT let product reach drains or waterways. If product does enter a waterway, advise the Environmental Protection Authority or your local Waste Management. Use clean, non-sparking tools and equipment. Use water spray to reduce vapors. No smoking, flames, or flares in hazard area.
Clean Up Procedures	If possible, the spilled liquid should be pumped or otherwise transferred to a waste container. Residual liquid should be absorbed using absorbent non- combustible material such as sand or soil. Avoid using sawdust or cellulose. When saturated collect material, transfer to suitable, labelled, dry chemical- waste containers and dispose of promptly as hazardous waste.

7. HANDLING AND STORAGE

Handling	Ensure an eye bath and safety shower are available and ready for use. Observe good personal hygiene practices and recommended procedures. Wash thoroughly after handling. Take precautionary measures against static discharges by bonding and grounding equipment. Keep away from heat and sources of ignition. Intrinsically safe equipment (e.g explosion-proof equipment) only must be used in areas where this chemical is being used. The use of compressed air for filling, discharging,

	mixing or handling is prohibited due to the vapour hazard. Containers must be earthed to avoid generation of static charges when agitating or transferring product. Avoid contact with eyes, skin and clothing. Do not inhale product vapours. Avoid prolonged or repeated exposure. Remove contaminated clothing and wash before reuse. Do not eat, drink or smoke in areas of use or storage.
Storage	Store in a cool, dry, well-ventilated, fire-proof area. Keep containers tightly sealed when not in use. Inspect regularly for deficiencies such as damage or leaks. Protect against physical damage. Ground and bond storage containers. Store away from incompatible materials as listed in section 10. Protect from heat, and sources of ignition. Do not eat, drink or smoke in areas of use or storage. This product has a UN Classification of 1090 and a Dangerous Goods Class 3 (flammable) according to The Australian Code for the Transport of Dangerous Goods By Road and Rail.
Container	Container type/packaging must comply with all applicable local legislation. Store in original packaging as approved by manufacturer

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

General	The following exposure standard has been established by The Australian Safety and Compensation Council (ASCC); ACETONE (CAS 67-64-1): TWA = 500ppm (1185mg/m3) STEL = 1000ppm (2375mg/m3) NOTE: The exposure value at the TWA is the average airborne concentration of a particular substance when calculated over a normal 8 hour working day for a 5 day working week. These exposure standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept to as low a level as is workable. These exposure standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity.
Exposure Limits	No Data Available
Biological Limits	No information available on biological limit values for this product.
Engineering Measures	A system of local and/or general exhaust is recommended to keep employee exposures as low as possible. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Use a flame proof exhaust ventilation system.
Personal Protection Equipment	RESPIRATOR: Wear a respirator with suitable Type 'A' filter for organic gases and vapours if engineering controls are inadequate (AS1715/1716). EYES: Chemical goggles to prevent splashing in the eyes (AS1336/1337). HANDS: Neoprene or latex gloves (AS2161). CLOTHING: Chemical-resistant coveralls and safety footwear (AS3765/2210).
Work Hygienic Practices	No Data Available

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Liquid
Appearance	Liquid
Odour	Ketone Odour
Colour	Colourless
pH	No Data Available
Vapour Pressure	233 hpa @ 20ºC
Relative Vapour Density	2.0
Boiling Point	56ºC
Melting Point	-95ºC
Freezing Point	No Data Available
Solubility	No Data Available
Specific Gravity	0.7910-0.7930 (20'C)
Flash Point	No Data Available
Auto Ignition Temp	No Data Available
Evaporation Rate	5.6
Bulk Density	No Data Available
Corrosion Rate	No Data Available
Decomposition Temperature	No Data Available
Density	No Data Available
Specific Heat	No Data Available
Molecular Weight	No Data Available
Net Propellant Weight	No Data Available
Octanol Water Coefficient	-0.24

Particle Size	**No Data Available**
Partition Coefficient	**No Data Available**
Saturated Vapour Concentration	**No Data Available**
Vapour Temperature	**No Data Available**
Viscosity	**0.33cP (@ No Data Available)**
Volatile Percent	**No Data Available**
VOC Volume	**No Data Available**
Additional Characteristics	**No Data Available**
Potential for Dust Explosion	**Product is a liquid.**
Fast or Intensely Burning Characteristics	**No Data Available**
Flame Propagation or Burning Rate of Solid Materials	**No Data Available**
Non-Flammables That Could Contribute Unusual Hazards to a Fire	**No Data Available**
Properties That May Initiate or Contribute to Fire Intensity	**No Data Available**
Reactions That Release Gases or Vapours	**No Data Available**
Release of Invisible Flammable Vapours and Gases	**No Data Available**

10. STABILITY AND REACTIVITY

Chemical Stability	**Product is stable under directed conditions of use, storage and temperature. Highly flammable liquid.**
Conditions to Avoid	**Avoid Heat, sparks, flame and build-up of static electricity.**
Materials to Avoid	**Incompatible with Strong oxidizing agents, halogenated compounds and sources of ignition.**
Hazardous Decomposition Products	**Burning can produce carbon dioxide and water, incomplete combustion can produce carbon monoxide.**
Hazardous Polymerisation	**Hazardous polymerization will not occur.**

11. TOXICOLOGICAL INFORMATION

General Information	**Oral LD50 Rat: 5800mg/Kg Inhalation LC50/4hr Rat: >20mg/L Dermal LD50 Rabbit: 20000mg/Kg**
EyeIrritant	**Vapour may irritate the eyes. Liquid and mists may severely irritate or damage the eyes.**
Ingestion	**Accidental swallowing is unlikely in industrial setting. Swallowing can cause drunkenness or harmful central nervous system effects. Effects of a small intake may include excitation, euphoria, headache, dizziness, drowsiness, blurred vision, and fatigue. Drinking a large amount may lead to acute intoxication, tremors, convulsions, loss of consciousness, coma, respiratory arrest and death. Aspiration into lung may cause pneumonitis.**
Inhalation	**Vapour is moderately irritating to mucous membranes and respiratory tract. Inhalation of the vapour may result in drunkenness, or headache, nausea, incoordination, narcosis (sleepiness) and vomiting. Early signs or symptoms may occur at airborne levels of 1000 to 5000 ppm.**
SkinIrritant	**Contact with skin may result in irritation and redness. Prolonged or repeated contact and heavy skin contamination may cause skin drying and cracking and/or dermatitis with redness, itching, and swelling. This may lead to possible secondary infection.**
Carcinogen Category	**No Data Available**

12. ECOLOGICAL INFORMATION

Ecotoxicity	Fish Oncorhynchus mykiss LC50/96hr: 5540mg/L Fish Bluegill sunfish LC50/96hr: 8300mg/L Fish Pimephales promelas LC50/96hr: 8120mg/L Daphnia Magna EC50/24hr: 10mg/L Selenastrum Caprocornutum EC50/96hr: >100mg/L
Persistence/Degradability	Product is volatile and biodegradable.
Mobility	When released into the soil, this material will mobile and may contaminate groundwater.
Environmental Fate	Do NOT let product reach waterways, drains and sewers.
Bioaccumulation Potential	Not expected to bioaccumulate significantly.
Environmental Impact	No Data Available

13. DISPOSAL CONSIDERATIONS

General Information	Dispose of in accordance with all local regulations. All empty packaging should be disposed of in accordance with Local Regulations or recycled/reconditioned at an approved facility.
Special Precautions for Land Fill	Contact a specialist disposal company or the local waste regulator for advice. Empty containers must be decontaminated by rinsing with water. Non-returnable containers should be de-gassed prior to disposal. Waste containers can either be reused for the same material or disposed in accordance with government regulation. Suitable for incineration by approved agent under controlled conditions if permitted by local authorities, otherwise disposal must be in accordance with local waste and environmental authority requirements.

14. TRANSPORT INFORMATION

Land Transport

Proper Shipping Name	ACETONE (ACETONE SOLUTIONS)
Class	3 Flammable Liquids
Subsidiary Risk(s)	No Data Available
ERG	127 Flammable Liquids (Polar / Water-Miscible)
UN Number	1090
Hazchem	2YE
Pack Group	II
Special Provision	No Data Available

Sea Transport
IMDG

Proper Shipping Name	ACETONE (ACETONE SOLUTIONS)
Class	3 Flammable Liquids
Subsidiary Risk(s)	No Data Available
UN Number	1090
Hazchem	2YE
Pack Group	II
Special Provision	No Data Available
EMS	FE,SD
Marine Pollutant	No

Air Transport
IATA

Proper Shipping Name	ACETONE
Class	3 Flammable Liquids
Subsidiary Risk(s)	No Data Available
UN Number	1090
Hazchem	2YE
Pack Group	II
Special Provision	No Data Available

15. OTHER INFORMATION

Revision	**2**
Key/Legend	**< Less Than** **> Greater Than** **atm Atmosphere** **CAS Chemical Abstracts Service (Registry Number)** **cm Square Centimetres** **CO2 Carbon Dioxide** **COD Chemical Oxygen Demand** **Degrees Celcius** **Degrees Farenheit** **g Grams** **g/cm Grams per Cubic Centimetre** **g/l Grams per Litre** **HSNO Hazardous Substance and New Organism** **IDLH Immediately Dangerous to Life and Health** **immiscible Liquids are insoluable in each other.** **inHg Inch of Mercury** **inH2O Inch of Water** **K Kelvin** **kg Kilogram** **kg/m Kilograms per Cubic Metre** **lb Pound** **LC50 LC stands for lethal concentration. LC50 is the concentration of a material in air which causes the death of 50% (one half) of a group of test animals. The material is inhaled over a set period of time, usually 1 or 4 hours.** **LD50 LD stands for Lethal Dose. LD50 is the amount of a material, given all at once, which causes the death of 50% (one half) of a group of test animals.** **ltr or L Litre** **m Cubic Metre** **mbar Millibar** **mg Milligram** **mg/24H Milligrams per 24 Hours** **mg/kg Milligrams per Kilogram** **mg/m Milligrams per Cubic Metre** **Misc or Miscible Liquids form one homogeneous liquid phase regardless of the amount of either component present.** **mm Millimetre** **mmH2O Millimetres of Water** **mPa.s Millipascals per Second** **N/A Not Applicable** **NIOSH National Institute for Occupational Safety and Health** **NOHSC National Occupational Heath and Safety Commission** **OECD Organisation for Economic Co-operation and Development** **Oz Ounce** **PEL Permissible Exposure Limit** **Pa Pascal** **ppb Parts per Billion** **ppm Parts per Million** **ppm/2h Parts per Million per 2 Hours** **ppm/6h Parts per Million per 6 Hours** **psi Pounds per Square Inch** **R Rankine** **RCP Reciprocal Calculation Procedure** **STEL Short Term Exposure Limit** **TLV Threshold Limit Value** **tne Tonne** **TWA Time Weighted Average** **ug/24H Micrograms per 24 Hours** **UN United Nations** **wt Weight**