

# NIGHTINGALE SUPPLY

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## MATERIAL SAFETY DATA SHEET

**CLASSIFIED AS HAZARDOUS ACCORDING TO CRITERIA OF  
WORKSAFE AUSTRALIA**

### IDENTIFICATION SECTION:

Product Name : **ACETONE**  
Other Names: Dimoethyl ketone, dimethyl ketal  
U.N. Number : 1090  
Dangerous Goods Class : 3.1 FLAMMABLE LIQUID  
& Subsidiary Risk : none allocated  
Hazchem Code : 2 (Y) E  
Packaging Group : 11  
Poison Schedule : S5  
EPG: : 3A1

Uses: Paint. Varnish, and lacquer solvent;  
Cellulose acetate especially as spinning solvent.  
Delusterant for cellulose acetate fibres.

### PHYSICAL DESCRIPTION / PROPERTIES:

Appearance : Colourless liquid with a sharp penetrating and  
Non-residual odour.  
Boiling Point : 56°C @ 760 mmHg  
Melting Point : -94°C  
Vapour pressure : 180 mmHg @ 20°C  
Specific Gravity : 0.791 @ 20°C  
Flash Point : - 17°C (Method = Tag closed cup)  
Flammability Limits : LEL: 2.6% UEL: 12.8%  
Solubility in water : Completely miscible.

#### **Other Properties:**

Percent volatiles by volume : 100%  
Autoignition temperature : 465°C  
Vapour density: : 14.35 @ 15°C  
Solubility (Water) : completely miscible  
(Organic Solvents) : completely miscible with alcohol, dimethyl  
formamide, chloroform and ether and most  
oils.

## **INGREDIENTS:**

<u>Chemical Entity</u>	<u>PROPORTION %</u>	<u>CAS NUMBER</u>
Acetone	100 %	67-64-1

## **HEALTH HAZARD INFORMATION:**

Poorly controlled diabetes and starvation during pregnancy can result in metabolic ketosis (a condition characterized by elevated ketone levels in the body tissues and Fluids), which can have a harmful effect on the foetus and mother. Exposure to Relatively high levels of acetone can result in elevated blood ketones which may mimic such a ketosis. While no human cases of acetone induced ketosis adversely affecting pregnancy have been reported, care should be taken.

Acetone was one of 5 solvents mentioned in a case report on sacral agenises (black bone abnormality) in offspring of 5 women exposed during pregnancy. However, other reviewers have concluded that this study did not provide evidence of acetonic toxicity in humans or allow conclusions to be drawn on the developmental toxicity of acetone.

## **Health Effects:**

### **Swallowed:**

Slightly toxic. May cause irritation to the throat and tube to the stomach. Swallowing of large amounts may cause symptoms similar to inhalation (ie headache, dizziness, unco-ordination, nausea, vomiting and unconsciousness.)

**Eyes:** Liquid may cause moderate eye irritation and moderate corneal injury. Most subjects exposed to vapour concentrations of 500-1000ppm experienced irritation to the eyes.

**Skin:** Brief contact may cause mild irritation. Frequent, prolonged or repeated

**Inhalation:** Toxic by inhalation. Irritating to the respiratory tract and mucous membranes. Inhalation of the vapour may result in headaches, nausea and vomiting. High concentrations may cause unconsciousness. Prolonged exposure may cause somnolence and narcosis.

**Swallowed:** May be harmful if swallowed. May cause irritation to mouth, throat and stomach. Moderately toxic. Tends to break up into a foam if the patients vomits. Upon aspiration into the lungs, chemical pneumonitis may develop.

**NOTE:**

In studies of petroleum spirits, humans have experienced nausea, vomiting, abnormal blood picture, aplastic anemia, liver damage, toxic encephalopathy, dementia and neurological disorders. (Reference, R.S.C. Solvents, Volume 1, 1989).

**First Aid Facilities:**

Ipecac Syrup APF, Clean water supply, Barrier Cream Soap and Eye Wash Stations should there be risk of splashing.

**FIRST AID:**

**Swallowed:**

Give plenty of water to drink and DO NOT induce Vomiting because of risk of aspiration. Seek medical Advice immediately.

**Eye:**

Hold eyes open and irrigate with water for at least 15 minutes. Remove contact lenses if worn. Seek medical advice promptly.

**Skin:**

Wash with water. Remove affected clothing and wash Before re-use. Seek medical advice.

**Inhaled:**

Remove to fresh air, rest patient in the most Comfortable position and keep warm. Seek medical Advice. Give artificial respiration if breathing stops.

**CHRONIC EFFECTS:**

**First Aid Facilities:**

Ipecac Syrup APF, Clean water supply, Barrier Cream Soap and Eye Wash Stations should there be risk of Splashing.

**Advice to Doctor:**

**Oral:**

Gastrointestinal irritation, nausea, vomiting and cramping. CNS depression ranging from mild headache to an aesthesia and coma. Pulmonary irritation secondary to exhalation of solvent. Lavage with cuffed tube if large quantity ingested. Aspiration is main danger. Enforced bed rest and observe carefully. Prophylactic antibiotics useful. Observe for 24 hours for chemical pneumonitis. Longer term medical surveillance may be necessary. Maintain airway and vital functions. Avoid sympathomimetic

amines.

## PRECAUTIONS FOR USE:

<b>Exposure Standards:</b>	<b>Recommendedd 80 ppm</b>
<b>Engineering Controls:</b>	
<b>Segregation of Processes from Personnel:</b>	Do not generate spray or mist without adequate ventilation.
<b>Vessel Containment Controls:</b>	Use bonding of earth connection when transferring product.
<b>Enclosure of Sources of Substances:</b>	Keep away from sources of heat or ignition.
<b>Capture of Substances at Source and Disposal with Local exhaust ventilation:</b>	
<b>Dilution Ventilation:</b>	Store in a well ventilated area in accordance with AS 1940.
<b>Personal Protection:</b>	
<b>Respirator Type (AS 1716):</b>	<b>Not required under normal circumstances. If ventilation is Inadequate, the wearing of an Organic Vapour Respirator Complying with AS 1716.</b>
<b>Glove Type:</b>	<b>The wearing of PVC, Nitrile or Neoprene gloves complying With AS 2161 is recommended.</b>
<b>Eye Protection:</b>	<b>Where splashing or spray mist is likely to occur, the wearing of Chemical Safety Goggles complying with AS 1337 is recommended.</b>
<b>Clothing:</b>	<b>Cotton overalls done up consisting of long sleeve and trousers.</b>
<b>Other:</b>	<b>Approved barrier creams may prove useful in preventing Dermatitis. Leather boots with rubber sole. If likely to come in contact with liquid – include – goggles or face shield PVC gloves, PVC apron and sleeves, PVC or rubber boots.</b>
<b>Flammability Fire Hazards</b>	<b>Flammable liquid .</b>
<b>Ventilation:</b>	<b>Requires adequate ventilation to avoid build up of explosive air vapour.</b>
<b>Earthing:</b>	<b>Required for all product transfers.</b>
<b>Sources of Ignition Advice:</b>	<b>Isolate from sources of heat, naked flames or sparks. Take precautions against static electricity discharges. Keep away from all oxidizing materials.</b>
<b>Special Equipment: Flameproofing:</b>	<b>Required for other than minor storage in accordance with AS 1960. Explosive Atmospheres”), AS1020 (State Electricity Code).</b>

## **SAFE HANDLING INFORMATION:**

### **Storage and Transport:**

UN 1300      PACKAGING GROUP 111  
CLASSIFIED as a Flammable Liquid Dangerous Good  
For the purpose of storage and transport.

Store in a cool place. Store container in well ventilated place. Store away From heat, naked flames, sparks heat or sunlight. Store away from strong oxidizing agents. Keep containers closed at all times.  
Keep away from food, foodstuffs, drink or clothing. Take precautions against static Electricity discharges. Classified as a dangerous substance for transport purposes.  
Flammable Liquid Class 3.  
Apply correct labels if material to be transported.

Bunding:	Impervious.
Security:	Supervised at locked area.
Ventilation:	Natural or mechanical ventilation required.
Temperature Conditions:	Cool and dry.
Protection from weather, Sunlight:	Store in a ventilated area away from heat and Sunlight.
Storage incompatibilities:	Oxidising agents, organic peroxides, strong Acids, food.
Special transport Requirements:	Transport in accordance with ADG Code of Regulations. DO NOT transport damaged or Leaking containers.

### **Spills and Disposal:**

Minimising Spills and Leaks:	Extinguish or remove all sources of heat And ignition. Clear area of all unprotected Personnel. Wear appropriate protection Equipment. Refer to ventilation and Personal protection.
Clean Up Spills/Leaks:	Shut off leak if safe to do so. DO NOT smoke During the clean up procedure. Bund and Contain spill with sand or earth but NOT sawdust. Allow to evaporate if conditions permit. Absorb The liquid with sand, earth or other absorbent.

Precautions for  
Clean up:

Wash with copious volumes of water, ethanol  
Mixes completely with water. Place used  
Absorbent in suitable, sealable, labeled  
Containers.

Disposal Containers:

Dispose of following under the requirements  
Of state environmental authority. Keep away  
From heat, naked flame or sparks.

Disposal Method:

Incinerate under controlled conditions if permitted  
By local authorities. DO NOT flush to drains or  
Sewers.  
Do not contaminate stream, rivers or water  
Courses. Inform local authority if liquid enters  
Drains, sewers, streams etc.

**Fire/Explosion Hazard:**

Hazards of Use/Storage:

Explosive air-vapour mixture may form.  
Explosive when mixed with oxidizing substances.  
Earth and bond all transfer equipment including  
Tanks and drums. Keep away from heat, naked  
flames or sparks. Keep away from oxidizing  
Agents. Have adequate fire equipment available.

List of Dangerous  
Decomposition or Combustion Products:

Carbon Oxides, soot and smoke and other  
unidentifiable organic compounds may be formed  
during combustion.

Fire – fighting Recommendations:

Types of Extinguisher/Fire:

Fighting agents:  
Alcohol stable foam, carbon dioxide or dry  
Chemical extinguishers required. For large  
Fires use alcohol stable foam.

Precautions:

Evaluate immediate area. Advise Fire Brigade of  
Hazard. Keep pipelines, containers etc cool with  
Water spray. Fire fighters to wear self-contained  
Breathing apparatus if risk of exposure to products  
Of decomposition. Vapours are heavier than air  
And may travel along the ground, gathering in  
Depressions, resulting in Oxygen deficiency.  
Evacuate immediate area.

Protective clothing:

Wear full protective equipment including  
Breathing apparatus.

Reactivity:  
Hazchem Code:

Explosive when mixed with oxidizing substances.  
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OTHER INFORMATION:

Risk Phrases:

Highly Flammable

Safety Phrases:

Keep container tightly closed.  
Keep away from sources of ignition – No Smoking.

The data in this Material Safety Data Sheet has been compiled from our Suppliers Material Safety Data Sheets. This data relates only to the designated product and not to the use of said product in combination with other materials. Because conditions and circumstances of use of the product are beyond our control and any summary of data such as is represented by this Material Safety Data Sheet is inherently incomplete, Nightingale Supply makes no warranty about the accuracy of the data herein and assume no liability for the use of such data. Responsibility for proper precautions and safe use of the product lies with the user.