

ANDREW ACETONE

Chemwatch Material Safety Data Sheet
 For Domestic Use Only.
 Issue Date: 15-Jun-2008
 XC9477SD

CHEMWATCH 1090
 Version No:3
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Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME

ANDREW ACETONE

STATEMENT OF HAZARDOUS NATURE

Considered a Hazardous Substance according to the criteria of the New Zealand Hazardous Substances New Organisms legislation.

OTHER NAMES

C3-H6-O, CH3COCH3, propanone, "pyroacetic acid", "pyroacetic ether", 2-propanone, 2-propanone, beta-ketopropane, "methyl ketone", propan-2-one, propan-2-one, "dimethyl ketone", "ketone, dimethyl ketone propane", "dimethyl formaldehyde", "RF Services", "RCRA Waste No. U002", EM000739, "APS RETL00020006", UCH00002546, RDEH06009000, SPOL00000585, AR0000006, UL0000007, M&B00004946, "Ashland Acetone ECD", "Mobil 878033", 971934, J.T.Baker, Chem-Supply

PROPER SHIPPING NAME

ACETONE

PRODUCT USE

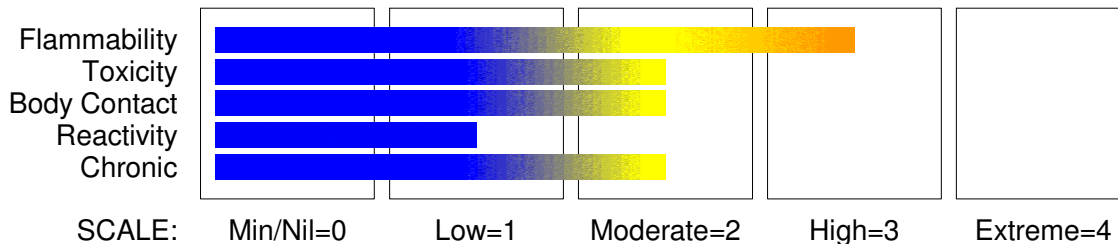
Solvent for fats, oils, waxes, resins, rubber, plastics, lacquers. Used in manufacture of methyl isobutyl ketone, mesityl oxide, acetic acid, diacetone alcohol, isoprene. Used in solvent extraction processes. Solvent in the manufacture of explosives and rayon. Component of adhesives, glues, cleaning solvents, lacquer thinners, nail polish, paint removers. Storing acetylene gas (takes up about 24 times its volume of the gas). Purifying paraffin and biomedical hardening and dehydrating tissues. Minor food additive, permitted in USA.

SUPPLIER

Company: Damar Industries Limited
 Address:
 Eastgate Business Park
 800 Te Ngae Road
 Rotorua
 Telephone: +64 7 345 6007
 Emergency Tel: 0800 2436 2255
 Emergency Tel: 0800 CHEMCALL
 Fax: +64 7 345 6019

Section 2 - HAZARDS IDENTIFICATION

CHEMWATCH HAZARD RATINGS



GHS Classification

Acute Toxicity (Oral) Category 5
 Eye Irritation Category 2A
 Flammable Liquid Category 2
 Skin Corrosion/Irritation Category 3

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Section 2 - HAZARDS IDENTIFICATION



EMERGENCY OVERVIEW

HAZARD

DANGER

Gazetted by ERMANZ:

3.1B 6.1E 6.3B 6.4A

Highly flammable liquid and vapour

May be harmful if swallowed

Causes mild skin irritation

Causes serious eye irritation

PRECAUTIONARY STATEMENTS

Prevention

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

Keep container tightly closed.

Ground/bond container and receiving equipment.

Use explosion-proof electrical/ventilating/lighting equipment

Use only non-sparking tools.

Take precautionary measures against static discharge.

Wash thoroughly after handling.

Wear protective gloves/protective clothing/eye protection/face protection.

Response

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue

rinsing.

Call a POISON CENTER or doctor/physician if you feel unwell.

If skin irritation occurs: Get medical advice/ attention.

If eye irritation persists: Get medical advice/attention.

Storage

Store in a well-ventilated place. Keep cool.

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

| NAME | CAS RN | % |
|---------|---------|---------|
| acetone | 67-64-1 | 95-99.5 |

Section 4 - FIRST AID MEASURES

NEW ZEALAND POISONS INFORMATION CENTRE 0800 POISON (0800 764 766)

NZ EMERGENCY SERVICES: 111

SWALLOWED

• If swallowed do NOT induce vomiting.

• If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration.

• If spontaneous vomiting appears imminent or occurs, hold patient's head down, lower than their hips to help avoid possible aspiration of vomitus.

EYE

» If this product comes in contact with the eyes:

• Wash out immediately with fresh running water.

• Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids.

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Section 4 - FIRST AID MEASURES

SKIN

- » If skin contact occurs:
- Immediately remove all contaminated clothing, including footwear.
- Flush skin and hair with running water (and soap if available).

INHALED

- If fumes or combustion products are inhaled remove from contaminated area.
- Lay patient down. Keep warm and rested.

NOTES TO PHYSICIAN

» Any material aspirated during vomiting may produce lung injury. Therefore emesis should not be induced mechanically or pharmacologically.

For acute or short term repeated exposures to acetone:

- Symptoms of acetone exposure approximate ethanol intoxication.
- About 20% is expired by the lungs and the rest is metabolised. Alveolar air half-life is about 4 hours following two hour

inhalation at levels near the Exposure Standard; in overdose, saturable metabolism and limited clearance, prolong the elimination half-life to 25-30 hours.

Section 5 - FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA

- Alcohol stable foam.
- Dry chemical powder.

FIRE FIGHTING

- Alert Fire Brigade and tell them location and nature of hazard.
- May be violently or explosively reactive.

When any large container (including road and rail tankers) is involved in a fire, consider evacuation by 500 metres in all directions.

FIRE/EXPLOSION HAZARD

- Liquid and vapour are highly flammable.
 - Severe fire hazard when exposed to heat, flame and/or oxidisers.
- Combustion products include: carbon dioxide (CO₂), other pyrolysis products typical of burning organic material.
Contains low boiling substance: Closed containers may rupture due to pressure buildup under fire conditions.

FIRE INCOMPATIBILITY

- Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result.

Section 6 - ACCIDENTAL RELEASE MEASURES

EMERGENCY PROCEDURES

MINOR SPILLS

- Remove all ignition sources.
- Clean up all spills immediately.

MAJOR SPILLS

- Clear area of personnel and move upwind.
- Alert Fire Brigade and tell them location and nature of hazard.

Personal Protective Equipment advice is contained in Section 8 of the MSDS.

Section 7 - HANDLING AND STORAGE

PROCEDURE FOR HANDLING

- Containers, even those that have been emptied, may contain explosive vapours.
- Do NOT cut, drill, grind, weld or perform similar operations on or near containers.
- DO NOT allow clothing wet with material to stay in contact with skin.

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Section 7 - HANDLING AND STORAGE

Contains low boiling substance:

Storage in sealed containers may result in pressure buildup causing violent rupture of containers not rated appropriately.

- Check for bulging containers.
- Vent periodically.
- Avoid all personal contact, including inhalation.
- Wear protective clothing when risk of exposure occurs.

SUITABLE CONTAINER

- Packing as supplied by manufacturer.
- Plastic containers may only be used if approved for flammable liquid.
- For low viscosity materials (i) : Drums and jerry cans must be of the non-removable head type. (ii) : Where a can is to be used as an inner package, the can must have a screwed enclosure.
- For materials with a viscosity of at least 2680 cSt. (23 deg. C).

STORAGE INCOMPATIBILITY

» Acetone:

- may react violently with chloroform, activated charcoal, aliphatic amines, bromine, bromine trifluoride, chlorotriazine, chromic(IV) acid, chromic(VI) acid, chromium trioxide, chromyl chloride, hexachloromelamine, iodine heptafluoride, iodoform, liquid oxygen, nitrosyl chloride, nitrosyl perchlorate, nityrl perchlorate, perchloromelamine, peroxomonosulfuric acid, platinum, potassium tert-butoxide, strong acids, sulfur dichloride, trichloromelamine, xenon tetrafluoride
- reacts violently with bromoform and chloroform in the presence of alkalis or in contact with alkaline surfaces.
- Ketones in this group are reactive with many acids and bases liberating heat and flammable gases (e.g., H₂).
- Ketones react with reducing agents such as hydrides, alkali metals, and nitrides to produce flammable gas (H₂) and heat.
- Avoid reaction with oxidising agents.

STORAGE REQUIREMENTS

- Store in original containers in approved flame-proof area.
- No smoking, naked lights, heat or ignition sources.

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE CONTROLS

| Source | Material | TWA ppm | TWA mg/m ³ | STEL ppm | STEL mg/m ³ |
|--|-------------------|---------|-----------------------|----------|------------------------|
| New Zealand Workplace Exposure Standards (WES) | acetone (Acetone) | 500 | 1, 185 | 1, 000 | 2, 375 |

PERSONAL PROTECTION



RESPIRATOR

Type AX Filter of sufficient capacity

EYE

- Safety glasses with side shields.
- Chemical goggles.

HANDS/FEET

- Wear chemical protective gloves, eg. PVC.
 - Wear safety footwear or safety gumboots, eg. Rubber.
- Suitability and durability of glove type is dependent on usage. Factors such as:
- frequency and duration of contact,
 - chemical resistance of glove material,

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Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

OTHER

- Overalls.
- PVC Apron.
- Some plastic personal protective equipment (PPE) (e.g. gloves, aprons, overshoes) are not recommended as they may produce static electricity.

ENGINEERING CONTROLS

- » For flammable liquids and flammable gases, local exhaust ventilation or a process enclosure ventilation system may be required.
- Ventilation equipment should be explosion-resistant.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE

Clear, colourless, highly volatile, highly flammable liquid with characteristic sweet odour; mixes with water.
Mixes in alcohol,
ether, most hydrocarbons and oils.

PHYSICAL PROPERTIES

Liquid.
Mixes with water.

Molecular Weight: 58.08
Melting Range (°C): - 95.4
Solubility in water (g/L): Miscible
pH (1% solution): Not applicable
Volatile Component (%vol): 100
Relative Vapour Density (air=1): 2.0
Lower Explosive Limit (%): 2.6
Autoignition Temp (°C): 465
State: Liquid

Boiling Range (°C): 56
Specific Gravity (water=1): 0.79 @ 20 C
pH (as supplied): Not applicable
Vapour Pressure (kPa): 24 @ 20 C
Evaporation Rate: 11 BuAc=1 VFast
Flash Point (°C): - 17
Upper Explosive Limit (%): 12.8
Decomposition Temp (°C): Not Available
Viscosity: Not Available

Section 10 - CHEMICAL STABILITY AND REACTIVITY INFORMATION

CONDITIONS CONTRIBUTING TO INSTABILITY

- Presence of incompatible materials.
 - Product is considered stable.
- For incompatible materials - refer to Section 7 - Handling and Storage.*

Section 11 - TOXICOLOGICAL INFORMATION

POTENTIAL HEALTH EFFECTS

ACUTE HEALTH EFFECTS

- » Irritating to eyes.
- » HARMFUL- May cause lung damage if swallowed.
- » Vapours may cause dizziness or suffocation.
- » Vapours may cause drowsiness and dizziness.
- » Inhalation, skin contact and/or ingestion may produce health damage*.
- » May produce discomfort of the respiratory system and skin*.
- » * (limited evidence).

TOXICITY AND IRRITATION

» The material may cause skin irritation after prolonged or repeated exposure and may produce a contact dermatitis (nonallergic). This form of dermatitis is often characterised by skin redness (erythema) and swelling epidermis.
for acetone:
The acute toxicity of acetone is low. Acetone is not a skin irritant or sensitiser but is a defatting agent to the skin.

CHRONIC HEALTH EFFECTS

- » Repeated exposure may cause skin dryness and cracking.
- » Cumulative effects may result following exposure*.
- » * (limited evidence).

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Section 11 - TOXICOLOGICAL INFORMATION

Section 12 - ECOLOGICAL INFORMATION

This material and its container must be disposed of as hazardous waste.

Section 13 - DISPOSAL CONSIDERATIONS

- Recycle where possible
Otherwise ensure that:
- licenced contractors dispose of the product and its container.

Section 14 - TRANSPORTATION INFORMATION



Labels Required: FLAMMABLE LIQUID
HAZCHEM: None

UNDG:

| | | | |
|------------------------|---------|----------------|------|
| Dangerous Goods Class: | 3 | Subrisk: | None |
| UN Number: | 1090 | Packing Group: | II |
| Shipping Name: | ACETONE | | |

Air Transport IATA:

| | | | |
|---------------------|---------|--------------------|------|
| ICAO/IATA Class: | 3 | ICAO/IATA Subrisk: | None |
| UN/ID Number: | 1090 | Packing Group: | II |
| Special provisions: | None | | |
| Shipping Name: | ACETONE | | |

Maritime Transport IMDG:

| | | | |
|---------------------|-----------------------------|---------------------|------|
| IMDG Class: | 3 | IMDG Subrisk: | None |
| UN Number: | 1090 | Packing Group: | II |
| EMS Number: | F- E, S- D | Special provisions: | None |
| Limited Quantities: | 1 L | | |
| Shipping Name: | ACETONE (ACETONE SOLUTIONS) | | |

Section 15 - REGULATORY INFORMATION

REGULATIONS

acetone (CAS: 67-64-1) is found on the following regulatory lists;

- GESAMP/EHS Composite List of Hazard Profiles - Hazard evaluation of substances transported by ships
- IMO IBC Code Chapter 18: List of products to which the Code does not apply
- IMO MARPOL 73/78 (Annex II) - List of Other Liquid Substances
- IMO Provisional Categorization of Liquid Substances - List 1: Pure or technically pure products
- New Zealand Biological Exposure Indices
- New Zealand Hazardous Substances and New Organisms (HSNO) Act - Chemicals (single components)
- New Zealand Hazardous Substances and New Organisms (HSNO) Act - Dangerous Goods
- New Zealand Hazardous Substances and New Organisms (HSNO) Act - Hazardous Substances Register
- New Zealand Hazardous Substances and New Organisms (HSNO) Act - Pesticides
- New Zealand Inventory of Chemicals (NZIoC)
- New Zealand Poisons Schedule [NLV]
- New Zealand Workplace Exposure Standards (WES)
- OECD Representative List of High Production Volume (HPV) Chemicals
- United Nations Convention Against Illicit Traffic in Narcotic Drugs and Psychotropic Substances - Table II
- United Nations List of Precursors and Chemicals Frequently used in the Illicit Manufacture of Narcotic Drugs and Psychotropic Substances Under International Control - Table II

Specific advice on controls required for materials used in New Zealand can be found at <http://www.ermanz.govt.nz/search/registers.html>

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Section 16 - OTHER INFORMATION

NEW ZEALAND POISONS INFORMATION CENTRE

0800 POISON (0800 764 766)

NZ EMERGENCY SERVICES: 111

» Classification of the preparation and its individual components has drawn on official and authoritative sources as well as

independent review by the Chemwatch Classification committee using available literature references.

A list of reference resources used to assist the committee may be found at:

www.chemwatch.net/references.

» The (M)SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings.

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