

nuplex Material Safety Data Sheet

ACETONE

Infosafe No. AJ1VL **Version** 2.0 **ISSUED** November **Status** ISSUED
No. **Date** 2014 by
NUPLEXIN

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name

ACETONE

Product Code

C630700

Company Name

NUPLEX COMPOSITES a division of Nuplex Industries (Aust) Pty Ltd (ABN 25 000 045 572)

Address

49 - 61 Stephen Road, BOTANY NSW 2019
New Zealand: NUPLEX COMPOSITES a division of Nuplex Industries Limited, Level 3 Millennium
Centre, 602C Great South Road Ellerslie 1051
NEW ZEALAND

Emergency Tel.

Australia: 1800 022 037 (24H)
New Zealand: 0800 154 666 (24H)

Telephone/Fax Number

Telephone: Australia: +61 (02) 9839 4000(BH); New Zealand: +64 (09) 583 6500(BH) Fax
number: Australia: +61 (02) 9674 6225; New Zealand: +64 (09) 525 3709

Email

compliance@nuplex.com.au

Recommended Use

Solvent used in the processing of resins, lacquers, waxes, adhesives, inks, paints and
plastics.

2. HAZARDS IDENTIFICATION

Hazard Classification

Classified as Hazardous according to criteria of National Occupational Health and Safety
Commission (NOHSC), Australia.
Classified as Dangerous Goods according to the Australian Code for the Transport of
Dangerous Goods by Road and Rail. (7th edition)

Risk Phrase(s)

R11 Highly flammable.
R36 Irritating to eyes.
R66 Repeated exposure may cause skin dryness or cracking.
R67 Vapours may cause drowsiness and dizziness.

Safety Phrase(s)

S16 Keep away from sources of ignition - No smoking.
S23 Do not breathe gas/fumes/vapour/spray
S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical

advice.
S24/25 Avoid contact with skin and eyes.
S37/39 Wear suitable gloves and eye/face protection.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Characterization

Liquid

Ingredients

| Name | CAS | Proportion |
|---------|---------|------------|
| Acetone | 67-64-1 | 100 % |

Preparation Description

Acetone

4. FIRST AID MEASURES

Inhalation

If inhaled, remove affected person from contaminated area. Apply artificial respiration if not breathing. Seek medical attention.

Ingestion

Do not induce vomiting. Wash out mouth thoroughly with water. Seek immediate medical attention.

Skin

Remove all contaminated clothing immediately. Wash affected area thoroughly with soap and water. Wash contaminated clothing before reuse or discard. Seek medical attention.

Eye

If in eyes, hold eyelids apart and flush the eyes continuously with running water. Remove contact lenses. Continue flushing for several minutes until all contaminants are washed out completely. Seek medical attention.

First Aid Facilities

Eyewash, safety shower and normal washroom facilities.

Advice to Doctor

Treat symptomatically.

Other Information

For advice in an emergency, contact a Poisons Information Centre or a doctor at once. (131 126)

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media

Carbon dioxide, dry chemical or foam. Alcohol resistant foam is preferred. If not available normal foam can be used.

Hazards from Combustion Products

Under fire conditions this product may emit toxic and/or irritating fumes and gases including carbon monoxide and carbon dioxide.

Specific Hazards

Highly flammable liquid and vapour. Vapour/air mixtures may ignite explosively. Flashback along the vapour trail may occur. Runoff to sewer may create fire or explosion hazard. Vapours are heavier than air and spread at floor level.

Hazchem Code

•2YE

Decomposition Temperature

Not available

Precautions in connection with Fire

Fire fighters should wear full protective clothing and self-contained breathing apparatus (SCBA) operated in positive pressure mode. In case of fire the product may be violently or explosively reactive. Use water spray to disperse vapours. This product should be prevented from entering drains and watercourses.

Unsuitable Extinguishing Media

Do not use water jet.

6. ACCIDENTAL RELEASE MEASURES

Emergency Procedures

Wear appropriate personal protective equipment and clothing to prevent exposure. Avoid breathing in mists or vapours and skin or eye contact. Extinguish or remove all sources of ignition and stop leak if safe to do so. Increase ventilation. Evacuate all unprotected personnel. If possible contain the spill. Do not dilute material but contain. Place inert absorbent, non-combustible material onto spillage. Use clean non-sparking tools to collect the material and place into suitable labelled containers for subsequent recycling or disposal. Take precautionary measures against static discharge. Dispose of waste according to the applicable local and national regulations. If contamination of sewers or waterways occurs inform the local water and waste management authorities in accordance with local regulations.

7. HANDLING AND STORAGE

Precautions for Safe Handling

Wear appropriate personal protective equipment and clothing to prevent exposure. Handle and use the material in a well-ventilated area, away from sparks, flames and other ignition sources. Have emergency equipment (for fires, spills, leaks, etc.) readily available. Work from suitable, labelled, fire-resistant containers. Open containers carefully as they may be under pressure. Keep containers tightly closed. Flameproof equipment is necessary in areas where the product is being used. Take precautionary measures against static discharges. Earth or bond all equipment. Do not empty into drains. Ensure a high level of personal hygiene is maintained when using this product, that is, always wash hands before eating, drinking, smoking or using the toilet facilities.

Conditions for Safe Storage

Store in a cool, dry, well-ventilated area away from sources of ignition, oxidising agents, strong acids, foodstuffs, and clothing. Protect from sunlight. Keep containers closed when not in use, securely sealed and protected against physical damage. Inspect regularly for deficiencies such as damage or leaks. Have appropriate fire extinguishers available in and near the storage area. Take precautions against static electricity discharges. Use proper grounding procedures. Use explosion-proof equipment. Explosive gas-air vapour mixtures may form. Ensure that storage conditions comply with applicable local and national regulations.

For information on the design of the storeroom, reference should be made to Australian Standard AS1940 - The storage and handling of flammable and combustible liquids. Reference should also be made to all applicable local and national regulations.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**National
Exposure
Standards**

| | | | | | |
|--|--|-----------------|-----------------|--|--|
| | | Exposure | Exposure | | |
|--|--|-----------------|-----------------|--|--|

| Substance | Regulations | Duration | Limit | Units | Notes |
|-----------|---------------------|----------|-------|-------|-------|
| Acetone | Safe Work Australia | TWA | 500 | ppm | |
| | Safe Work Australia | TWA | 1185 | mg/m3 | |
| | Safe Work Australia | STEL | 1000 | ppm | |
| | Safe Work Australia | STEL | 2375 | mg/m3 | |

Biological Limit Values

Determinant: Acetone in urine

BEI@: 50mg/l

Sampling time: end of shift.

Source: American Conference of Industrial Hygienists (ACGIH)

Engineering Controls

This substance is hazardous and should be used with a local exhaust ventilation system, drawing vapours away from workers' breathing zone. A flame-proof exhaust ventilation system is required. If the engineering controls are not sufficient to maintain concentrations of vapours/mists below the exposure standards, suitable respiratory protection must be worn. Refer to relevant regulations for further information concerning ventilation requirements.

Refer to AS 1940 - The storage and handling of flammable and combustible liquids and AS/NZS 60079.10.1:2009 Explosive atmospheres - Classification of areas - Explosive gas atmospheres, for further information concerning ventilation requirements.

Respiratory Protection

If engineering controls are not effective in controlling airborne exposure then an approved respirator with a replaceable vapor/mist filter should be used. Refer to relevant regulations for further information concerning respiratory protective requirements. Reference should be made to Australian Standards AS/NZS 1715, Selection, Use and Maintenance of Respiratory Protective Devices; and AS/NZS 1716, Respiratory Protective Devices, in order to make any necessary changes for individual circumstances.

Eye Protection

Safety glasses with full face shield should be used. Eye protection devices should conform to relevant regulations.

Eye protection should conform with Australian/New Zealand Standard AS/NZS 1337 - Eye Protectors for Industrial Applications.

Hand Protection

Wear gloves of impervious material such as butyl rubber or natural rubber. Final choice of appropriate gloves will vary according to individual circumstances i.e. methods of handling or according to risk assessments undertaken. Occupational protective gloves should conform to relevant regulations.

Reference should be made to AS/NZS 2161.1: Occupational protective gloves - Selection, use and maintenance.

Footwear

Footwear: rubber

Body Protection

Suitable protective workwear, e.g. cotton overalls buttoned at neck and wrist is recommended. Chemical resistant apron is recommended where large quantities are handled.

Hygiene Measures

Keep away from food, drink and animal feeding stuffs. Remove all contaminated clothing immediately. Ensure a high level of personal hygiene is maintained when using this

product, that is, always wash hands after handling, and before eating, drinking, smoking or using the toilet facilities.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form

Liquid

Appearance

Colourless mobile liquid

Odour

Characteristic: sweet, fruity

Decomposition Temperature

Not available

Melting Point

-95 - -94.7°C

Boiling Point

55.8 - 56.6°C

Solubility in Water

100g/100ml

Fully miscible

Solubility in Organic Solvents

Soluble in most organic solvents

Specific Gravity

0.791 (20°C) (water = 1)

pH Value

5-6

Vapour Pressure

187-247hPa (20°C)

Vapour Density (Air=1)

2.0

Evaporation Rate

Not available

Odour Threshold

13ppm (approximate)

Viscosity

Refer to Section 9: Kinematic Viscosity and Dynamic Viscosity

Colour

Colourless

Volatile Component

100%

Octanol/Water Partition Coefficient

log Kow = -0.24

Surface Tension

Not available

Flash Point

-20 - -17°C (Closed Cup)

Flammability

Flammable Liquid

Auto-Ignition Temperature

465°C

Ignition temperature: 540°C

Flammable Limits - Lower

2.1-3%v/v

Flammable Limits - Upper

13%v/v

Explosion Properties

Product is not explosive. Explosive gas-air vapour mixtures may form.

Molecular Weight

58.08

Oxidising Properties

Not available

Kinematic Viscosity

Not available

Dynamic Viscosity

0.32 - 0.33mPa.s (20°C)

Other Information

Refractive index: 1.358 - 1.359

10. STABILITY AND REACTIVITY

Stability and Reactivity

Refer to Section 10: Possibility of hazardous reactions

Chemical Stability

Stable under normal conditions of storage and handling.

Conditions to Avoid

Heat, open flames and other sources of ignition.

Incompatible Materials

Strong oxidising agents. Acids.

Hazardous Decomposition Products

Thermal decomposition may result in the release of toxic and/or irritating fumes including: carbon monoxide and carbon dioxide.

Hazardous Reactions

Can react violently with oxidising materials. Reacts violently with bromoform and chloroform in the presence of alkalis or in contact with alkaline surfaces. Decomposes violently in contact with nitric/sulfuric acid mixtures.

Hazardous Polymerization

Will not occur.

11. TOXICOLOGICAL INFORMATION

Toxicology Information

Available toxicity data is given below.

Inhalation

May cause irritation to the mucous membrane and upper airways, especially where vapours or mists are generated. Symptoms include sneezing, coughing, wheezing, shortness of breath, headache, dizziness, drowsiness, nausea and vomiting.

Ingestion

Ingestion of this product may irritate the gastric tract causing nausea and vomiting.

Skin

May be irritating to skin. The symptoms may include redness, itching and swelling. Repeated exposure may cause skin dryness and cracking and may lead to dermatitis.

Eye

Irritating to eyes. On eye contact this product will cause tearing, stinging, blurred vision, and redness.

Eye Irritation
Species: rabbit
Result: Irritating

Chronic Effects

Repeated exposure may cause skin dryness and cracking and may lead to dermatitis.

Mutagenicity

Not considered to be a mutagenic hazard.

Tests on bacterial or mammalian cell cultures did not show mutagenic effects.

Acute Toxicity - Oral

LD50 (rat): 5800 - 9750mg/kg

Acute Toxicity - Dermal

LD50 (rabbit): >20ml/kg
Result: slight irritant

LD50 (rabbit): 20000mg/kg

LD50 (rabbit): 7800mg/kg

Acute Toxicity - Inhalation

LC50 (rat): >16,000ppm/4hr

LC50 (rat): 76mg/l/4h (approximate)

LC50 (rat): >20mg/l/4h

12. ECOLOGICAL INFORMATION

Ecotoxicity

No ecological data available for this material.

Persistence / Degradability

Readily degradable
84% 20 days
91% 28 days (OECD 301 B)

Theoretical oxygen demand: 2.20g oxygen/g
COD (Chemical Oxygen Demand): 1.12-2.07g oxygen/g

COD (Chemical Oxygen Demand): 2100mg/g
BOD (Biochemical Oxygen Demand)-5: 0.31-1.85g oxygen/g
BOD (Biochemical Oxygen Demand)-20: 1.78g oxygen/g
BOD (Biochemical Oxygen Demand) 5 days: 1900mg/g

Mobility

Volatile

Bioaccumulative Potential

log Kow = -0.24

No bioaccumulation potential.

Bioconcentration Factor (BCF): <10

Environmental Protection

Do not discharge this material into waterways, drains and sewers.

Acute Toxicity - Fish

LC50 (Fathead minnow): 7280-8120mg/l/96h

LC50 (Oncorhynchus mykiss): 5540mg/l/96h

EC50 (Lepomis macrochirus): 8300mg/l/96h

LC/EC/IC 50 (Fish): >100mg/l

Acute Toxicity - Daphnia

LC50 (Daphnia): >10,000mg/l/24h

EC50 (Daphnia): >10,000mg/l/24h

LC50 (Daphnia magna): 12600mg/l/48h

EC50 (Daphnia magna): 8800mg/l

Acute Toxicity - Algae

NOEC (Pseudokirchneriella subcapitata): 4740mg/l/48h

LC/EC/IC 50 (Algae): >100mg/l

Acute Toxicity - Bacteria

NOEC (Pseudomonas putida): 1700mg/l/16h

13. DISPOSAL CONSIDERATIONS

Disposal Considerations

Dispose of waste according to applicable local and national regulations. Labels should not be removed from containers until they have been cleaned. Do not cut, puncture or weld on or near containers. Empty containers may contain flammable residues. Contaminated containers must not be treated as household waste. Containers should be cleaned by appropriate methods and then re-used or disposed of by landfill or incineration as appropriate. Do not incinerate closed containers. Advise flammable nature. Controlled incineration is recommended.

14. TRANSPORT INFORMATION

Transport Information

This material is a Class 3 - Flammable Liquid according to The Australian Code for the Transport of Dangerous Goods by Road and Rail. (7th edition)

Class 3 - Flammable Liquids are incompatible in a placard load with any of the following:

Class 1: Explosives

Division 2.1: Flammable Gases, if both the Class 3 and Division 2.1 dangerous goods are in bulk.

Division 2.3: Toxic gases

Division 4.2: Spontaneously combustible substances

Division 5.1: Oxidising substances
Division 5.2: Organic peroxides
Class 6 Toxic or Infectious Substances
Class 7: Radioactive materials unless specifically exempted

U.N. Number

1090

Proper Shipping Name

ACETONE

DG Class

3

Packing Group

II

Hazchem Code

•2YE

IERG Number

14

UN Number (Air Transport, ICAO)

1090

IATA/ICAO Proper Shipping Name

ACETONE

IATA/ICAO Hazard Class

3

IATA/ICAO Packing Group

II

IATA/ICAO Symbol

Flammable liquid.

IMDG UN No

1090

IMDG Proper Shipping Name

ACETONE

IMDG Hazard Class

3

IMDG Pack. Group

II

IMDG Marine Pollutant

No

IMDG EMS

F-E, S-D

15. REGULATORY INFORMATION

Regulatory Information

Classified as Hazardous according to criteria of National Occupational Health and Safety Commission (NOHSC), Australia.
Classified as a Scheduled Poison according to the Standard for the Uniform Scheduling of

Medicines and Poisons (SUSMP)

Poisons Schedule

S5

Hazard Category

Irritant, Highly Flammable

16. OTHER INFORMATION

Date of preparation or last revision of MSDS

SDS Reviewed: November 2014, Supersedes: December 2009

Contact Person/Point

IMPORTANT ADVICE: This MSDS summarizes our best knowledge of the health and safety hazard information of the product and how to safely handle and use the product in the workplace. Each user should read this MSDS and consider the information in the context of how the product will be handled and used in the workplace including its use in conjunction with other products. If clarification or further information is needed to ensure that an appropriate risk assessment can be made, the user should contact the supplier listed in section 1 of the SDS. Our responsibility for products sold is subject to our standard terms and conditions, a copy of which is sent to our customers and is also available on request.

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Literature References

Standard for the Uniform Scheduling of Medicines and Poisons.

Approved criteria for classifying hazardous substances [NOHSC:1008(2004)].

National Code of Practice for the Preparation of Material Safety Data Sheets [NOHSC:2011(2003)].

Australian Code for the Transport of Dangerous Goods by Road & Rail.

Model Work Health and Safety Regulations, Schedule 10: Prohibited carcinogens, restricted carcinogens and restricted hazardous chemicals.

Workplace exposure standards for airborne contaminants, Safe work Australia.

American Conference of Industrial Hygienists (ACGIH)

Technical Contact Numbers

For further information ask for: For specialist advice in emergencies: 1800 022 037

End of MSDS

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