Aurora Cleaning Supplies
F1 / 5 Bungaleen Court, Dandenong South, VIC 3175
office@auroracleaningsupplies.com.au
CHEMCALL: 1800 127 406

FOR FURTHER INFORMATION, PLEASE REFER TO THE SDS FOLLOWING

Issue: 22/08/2024

PRODUCT:	Diacetone Alcohol
Other Names:	4-hydroxy-4-methyl-2-pentanone; 2-Pentanone, 4-hydroxy-4-methyl-; DAA
Uses:	Industrial solvent, thinner component
Signal Word:	WARNING

UN No.	1148
Dangerous Goods Class	3
Subsidiary Risk	None
Pack Group	III
Hazchem	•2Y

Hazardous Nature:	This product is classified as hazardous under GHS (7th revised edition) in acordance with the model WHS Regulations
Hazardous Classification:	Flammable liquids, Cat. 3; Eye irritation, Cat. 2
Poisons Schedule:	None
AU Exposure Standards:	TWA: 238 mg/m^3 (50 ppm); STEL: No limit established

Physical Characteristics (Typical) — **Section 9 of SDS**

Appearance	Clear, colourless liquid
Boiling Point/ Range (°C):	166
Flash Point (°C):	60
Specific Gravity/ Density (g/mL) @20°C:	0.941
Chemical Stability:	Stable at room temperature and pressure

Product Ingredients — **Section 3 of SDS**

Diacetone Alcohol	123-42-2	>99%

For further ingredients information, please refer to the full SDS.

GHS Pictograms — **Section 2 of SDS**

For further risk and safety information, please refer to the full SDS.

DEFINITIONS

Dangerous Goods	Products that are classified as Dangerous for Storage and Transport: these products are allocated a UN No., with accompanying Class, Pack Group, and Sub. Risk, if required. Products that do not have a specific description under the code, but have low flash points, or such, must be classified under their most significant risk, eg. Flammable Goods N.O.S. (Not otherwise specified), UN 1993. Products not classed as Dangerous Goods are designated as not regulated for transport or N/R (non-regulated).
Hazardous Substance	Products are considered to be Hazardous if they pose an intrinsic risk to human or environmental health, such as mutagens (able to change DNA), teratogens (able to result in birth defects), carcinogens (able to generate cell abnormalities), etc. Materials classified with risks such as potential for misuse, like flammability, or explosions when heated and ignited, may be both classed as Dangerous Goods and Hazardous Substances.

SUMMARY INFORMATION ONLY

1. IDENTIFICATION

Product Name:	**Diacetone Alcohol**
Other Names:	4-hydroxy-4-methyl-2-pentanone; 2-Pentanone, 4-hydroxy-4-methyl-; DAA
Chemical Family:	C6H12O2
Recommended Use:	Industrial solvent, thinner component
Supplier:	Aurora Cleaning Supplies
ABN:	34 120 621 856
Street Address:	F1 / 5 Bungaleen Court, Dandenong South, VIC, 3175
Telephone:	03 9768 2669
Fax:	N/A
Emergency phone:	03 9768 2669
All other inquiries	

2. HAZARDS IDENTIFICATION

Hazardous Nature

This product is classified as hazardous under GHS (7th revised edition) in acordance with the model WHS Regulations

Hazardous Classification

Flammable liquids, Cat. 3; Eye irritation, Cat. 2

GHS Pictograms

Signal Word WARNING

Dangerous Goods Classification: 3

Hazard Statements

H226: Flammable liquid and vapour

H319: Causes serious eye irritation

Precautionary Statements

P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P233: Keep container tightly closed.

P240: Ground and bond container and receiving equipment.

P241: Use explosion-proof electrical/ventilating/lighting/…/equipment.

P242: Use non-sparking tools.

P243: Take action to prevent static discharges

P264: Wash hands and face thoroughly after handling.

P280: Wear protective gloves/clothing and eye/face protection.

Response Statements

P303 + P361 + P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower

P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.

P337 + P313: If eye irritation persists get medical advice/attention.

P370 + P378: In case of fire: Use dry chemical, carbon dioxide or alcohol resistant foam to extinguish

Storage Statements

P403+P235: Store in a well ventilated place. Keep cool.

Disposal Statements

P501: Dispose of contents/container in accordance with local/regional/national/international regulation.

3. COMPOSITION: Information on Ingredients

-

Chemical Ingredient	CAS No.	Proportion (%v/v)
Diacetone Alcohol	123-42-2	>99

4. FIRST AID MEASURES

For advice, contact Poisons Information Centre (Phone Australia: 13 1126) or a doctor.

Inhalation

Move the victim to fresh air and keep at rest in a position comfortable for breathing. Seek medical attention if concerned.

Skin/Hair Contact

Wash with soap and water. Seek medical attention if any irritation occurs

Eye Contact

Hold eyelids apart and flush the eye with running water for at least 15 minutes. Seek medical attention if irritation persists

Ingestion

If swallowed, do not induce vomiting. Give a glass of water to drink, if conscious. Never give anything by mouth to an unconscious person. Begin artificial respiration if the victim is not breathing. Use mouth to nose rather than mouth to mouth. Seek medical attention.

Most Important Symptoms and Effects

This material causes serious eye irritation.

First Aid facilities

Provide eye baths and safety showers.

Medical Attention

Treat symptomatically

5. FIRE FIGHTING MEASURES

Shut off product that may 'fuel' a fire if safe to do so. Allow trained personnel to attend a fire in progress, providing firefighters with this Safety Data Sheet. Prevent extinguishing media from escaping to drains and waterways.

Suitable Extinguishing Media

Dry chemical powder, carbon dioxide, dry sand or alcohol foam.

Specific Hazards Arising from the Material

This material is flammable and will burn if involved in a fire, creating smoke and potentially toxic gases and vapours. Vapours can form flammable or explosive mixtures with air.

Hazards from combustion products

Carbon monoxide and carbon dioxide and other unidentifiable organic compounds

Fire-fighting Precautions

Remove containers from fire, or cool with water spray.

Special Protective Equipment

Full protective clothing and self-contained breathing apparatus

Hazchem Code: •2Y

6. ACCIDENTAL RELEASE MEASURES

Emergency Procedures

Prevent material from escaping to drains and waterways. Contain leaking packaging in a containment vessel. Prevent vapours from building up in confined areas. Ensure that drain valves are closed at all times. Clean up and report spills immediately.

Personal Precautions

Avoid any personal contact with the material while handling spills. Ventilate the area.

Environmental Precautions

Prevent spillage from entering drains or water courses.

Methods and Materials for Containment

Stop the source of leak or release if possible to do so safely. Clean up spill as soon as possible, using techniques such as sorbent materials or pumping. Collect and place in suitable container for later disposal. Wash contaminated surfaces with water and

detergent, and collect washings for safe disposal.

Major land spill

- Eliminate sources of ignition
- Warn occupants of downwind areas of possible fire/explosion or toxicity hazard
- Prevent product from entering sewers, watercourses, or low-lying areas
- Keep the public away from the area
- Shut off the source of the spill if possible and safe to do so
- Advise authorities if substance has entered a watercourse or sewer or has contaminated soil or vegetation
- Take measures to minimise the effect on ground water
- Contain any spilled liquid with sand or earth
- Recover liquid spills by pumping – use explosion proof pump or hand pump – or with a suitable absorbent material
- Recover solid spills by mechanical collection methods; cover and prevent dusts or particles from spreading – consider wetting the product down, without diluting it – and vacuum or sweep up
- Consult an expert on disposal of recovered material and ensure conformity to local disposal regulations
- See “First Aid Measures” and “Stability and Reactivity”

Major water spill

- Eliminate any sources of ignition
- Warn occupants and shipping in downwind areas of possible fire/explosion or toxicity hazard
- Notify the port or relevant authority and keep the public away from the area
- Shut off the source of the spill if possible and safe to do so
- Confine the spill if possible
- Remove the product from the surface by skimming or with suitable absorbent material
- Consult an expert on disposal of recovered material and ensure conformity to local disposal regulations
- See “First Aid Measures” and “Stability and Reactivity”.

7. HANDLING AND STORAGE

Precautions for safe handling

This product is flammable. Do not open near open flame, sources of heat or ignition. No smoking. Keep container closed. Handle containers with care. Open slowly to control possible pressure release. Material will accumulate static charge. Use grounding leads to avoid discharge (electrical spark). Avoid skin and eye contact with the product and inhalation of vapours.

Conditions for safe storage

Store in a cool, dry place away from direct sunlight. Do not pressurise, cut, heat or weld containers - residual vapours are combustible. This product will fuel a fire in progress. Keep container tightly closed when not in use.

Storage compatibility

Painted surfaces, natural rubber, polystyrene, EDPM, neoprene, stong acids, bases and oxidising agents.

See also: Section 10 – Stability and Reactivity for further information on incompatible materials

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Exposure Standards

Australia: *Workplace Exposure Standards for Airborne Contaminants, 16 December 2019*

TWA:	238 mg/m^3 (50 ppm)
STEL:	No limit established
Advisory information	None

New Zealand: *Workplace Exposure Standards and Biological Exposure Indices, Edition 12: November 2020*

TWA:	238 mg/m^3 (50 ppm)
STEL:	No values established
Advisory information	None

International:

UK: 4-Hydroxy-4-methylpentan-2-one: WEL TWA (8 h), 241 mg/m^3 (50 ppm); short-term (15 min), 362 mg/m^3 (75 ppm).

US: Diacetone alcohol: ACGIH TLV TWA, 238 mg/m^3 (50 ppm).

The time weighted average (TWA) exposure standard is the highest allowable average airborne concentration of a particular substance when calculated over an eight-hour working day.

The short-term exposure limit (STEL) exposure standard is the maximum allowable exposure concentration for a substance during any 15-minute period in the working day.

Products may be identified as carcinogens, respiratory or skin sensitisers, or easily absorbed to the skin according to the below notations.

Carc 1A: Known to have carcinogenic potential for humans

Carc. 1B: Presumed to have carcinogenic potential for humans

Carc. 2: Suspected human carcinogen

6.7A: Confirmed carcinogen

6.7B: Suspected carcinogen

Sk/Skin: Substance is considered to have potential for significant skin absorption, risking overexposure

Sen: Substance is identified as having potential to cause respiratory and/or dermal sensitisation – an allergic reaction or hypersensitivity affecting skin (dsen) or respiratory system (rsen). High exposure may hasten the onset of the allergy, but once developed in an individual, very low exposures can provoke a significant reaction.

Biological Limit Values

None identified

Engineering Controls

Good general ventilation is recommended. If operating conditions create airborne vapour, local exhaust ventilation may be needed.

Personal Protective Equipment

Respiratory protection: Wear respiratory protective equipment if exposure to vapour is possible.

Recommended filter type: Organic vapour cartridge

Refer to AS/NZS 1715: *Selection, Use and Maintenance of Respiratory Equipment* and AS/NZS 1716*: Respiratory Protective Devices* for further details on the use of respiratory protective equipment.

Eye protection: Wear safety glasses with side shields.

Skin/ body protection: Wear chemical resistant gloves. (e.g. nitrile rubber, Viton). Overalls or other protective clothing are recommended if more extensive contact may occur.

9. PHYSICAL AND CHEMICAL PROPERTIES

Property	Unit of measurement	Typical value
Appearance	-	Clear, colourless liquid
Odour	-	Pleasant
Odour threshold	ppm	Not available
Melting Point/Freezing Point	°C	-47
Boiling Point/ Range	°C	166
Flash Point	°C	60
Flammability	-	Flammable liquid
Explosive Limits (LEL – UEL)	%	1.8 – 6.9
Vapour Pressure @ 0.97 mmHg, 20°C	kPa	0.13
Relative Vapour Density (Air = 1)	-	4.0
Relative Density @ 20°C	-	0.941
Autoignition Temperature	°C	603.4
Decomposition Temperature	°C	Not available
pH	-	Not available
Kinematic Viscosity	cSt	No data available
Solubility with Water	% w/w	Freely soluble
Other Solubility	% w/w	Not available
Partition Coefficient: n-octanol/water	-	Not available
Particle Characteristics	-	Not available
Percent Volatiles	%	100
Other Information	-	-

The values listed are indicative of this product's physical and chemical properties. For a full product specification, please consult the Product Data Sheet.

10. STABILITY AND REACTIVITY

Reactivity

No reactivity hazards identified

Chemical Stability

Stable at room temperature and pressure

Conditions to Avoid

Heat and sources of ignition

Incompatible materials

Strong acids, bases and oxidising agents

Hazardous Decomposition Products

Carbon monoxide, carbon dioxide and other organic complexes on incomplete burning or oxidation.

Hazardous Reactions

None identified

Hazardous Polymerisation

Will not occur

11. TOXICOLOGICAL INFORMATION

Acute Effects

Ingestion

This product is considered to have low toxicity by ingestion.

Inhalation

This material is considerred to be of low inhalation toxicity, however high concentrations of vapour or atomised product may cause dizziness, nausea, and loss of coordination.

Skin Contact

May cause mild skin irrtitation and prolonged or repeated contact may incur irritant contact dermatitis. This product may be absorbed easily into the skin risking symptoms of overexposure as listed in Ingestion and Inhalation

Eye Contact

Severely irritating to the eyes and more likely at high temperatures. Temporary blurred vision, redness and swelling is experienced.

Chronic Effects

This product may produce central nervous system depression with over exposure affecting kidney and liver function. Persons with pre-exisiting kidney or liver disorders should limit exposure to this product.

Other Health Effects Information

Individuals with pre-existing skin or respiratory conditions may be sensitive to this product.

Toxicological Information

Acute Toxicity - Oral: Not classified as acutely toxic by ingestion

LD_{50} (oral, rat) = 4000 mg/kg, LD_{50} (oral, mouse) = 3950 mg/kg;

Acute Toxicity – Dermal: Not classified as acutely toxic by skin contact

LD_{50} (dermal, rabbit) = 13,500 mg/kg

Acute Toxicity – Inhalation: Not classified as acutely toxic by inhalation

LC_{50}: No deaths at 1065 ppm/ 8hr (rat)

Skin Corrosion/Irritation: Not classified

Mild irritation (500 mg, open, rabbit).

Serious Eye damage/irritation: Causes serious eye irritation

Severe irritant (rat, 20 mg); irritating (human, 100 ppm).

Respiratory or Skin Sensitisation: Not classified

No data available

Germ cell mutagenicity: Not classified

Negative in Ames test.

Carcinogenicity: Not classified

No data available

Reproductive Toxicity: Not classified

No data available

Specific Target Organ Toxicity (STOT) – Single Exposure: Not classified

No data available

Specific Target Organ Toxicity (STOT) – Repeated Exposure: Not classified

Oral (rat; 30 d), renal effects observed at 40 mg/day; no renal effects at 10 mg/kg/day

Aspiration Hazard: Not classified

12. ECOLOGICAL INFORMATION

Ecotoxicity

Aquatic Toxicity

Not classified as hazardous to the aquatic environment.

Fish toxicity: LC_{50} = 420 mg/L/96 h

Crustacean toxicity): EC_{50} (daphnia) = 9000 mg/L/24 h

Algae toxicity: EC_3 (algae; 24 h) >530 mg/L;

Terrestrial Ecotoxicity

Not classified as hazardous to the terrestrial environment

Persistence/Degradability

Readily biodegradable by photochemical reaction and evaporation.

Bioaccumulative Potential

Not expected to bioaccumulate on the basis of log KOW (calculated 1.03)

Mobility in Soil

This product is highly mobile in water and soil, due to it's water miscibility. It is likely that this product will contaminate groundwater rapidly if accidentally released to the environment.

Other adverse effects

No additional adverse effects identified

13. DISPOSAL CONSIDERATIONS

Disposal Methods

Disposal of hazardous waste must be carried out in compliance with all applicable regional and national regulations. This product is NOT suitable for disposal by domestic landfill or via municipal sewers, drains, natural streams or rivers. It must be disposed as chemical waste in accordance with the local authority.

Care should be taken to ensure compliance with national and local authorities.

Refer to Section 8 of this SDS for precautions before carrying out disposal or recycling activities.

Product Disposal

Recycling or incineration are recommended disposal methods for this product. Dispose of product as chemical waste in accordance with the local authority.

Packaging Disposal

Empty packaging should be taken for recycling, recovery or disposal through a suitably qualified or licensed contractor. Care should be taken to ensure compliance with national and local authorities. Packaging may still contain harmful residue and/or fumes and vapours that are flammable. Ensure that empty packaging is allowed to dry

14. TRANSPORT INFORMATION

Road and Rail Transport (ADG)		Marine Transport (IMDG)		Air Transport (IATA)	
UN No.	1148	UN No.	1148	UN No.	1148
Proper Shipping Name	DIACETONE ALCOHOL	Proper Shipping Name	DIACETONE ALCOHOL	Proper Shipping Name	DIACETONE ALCOHOL
DG Class	3	DG Class	3	DG Class	3
Sub. Risk	None	Sub. Risk	None	Sub. Risk	None
Packing Group	III	Packing Group	III	Packing Group	III

Dangerous Goods Segregation

This product is classified as Dangerous Goods Class 3, packing group III.

Please consult the *Australian Dangerous Goods Code for Transport by Road and Rail* (ADG Code Edition 7.7, 2020) for further

information.

Environmental Hazards

Marine Pollutant: No

Special Precautions

-

Additional Information

No additional information

Hazchem Code:

Marpol 73/78 Convention – Annex II

Product Name: Not applicable

Ship Type: -

Pollution: -

15. REGULATORY INFORMATION

Country/ Region: Australia

Inventory: Australian Inventory of Industrial Chemicals (Inventory)

Status: Listed in AICIS Inventory

Poisons Standard:

Not applicable

Schedule: None

Agricultural Compounds and Veterinary Medicines Act 1997 (ACVM)

Not applicable

International Agreements

Montreal Protocol on Substances that Deplete the Ozone Layer: Not applicable

Stockholm Convention: Not applicable

Rotterdam Convention: Not applicable

Basel Convention: Not applicable

International Inventory Status:

New Zealand Inventory of Chemicals (NZIoC): Listed in NZIoC

International Inventories:

Not determined

16. OTHER INFORMATION

SDS Version Number: 2.0

Reasons for Issue: Update to GHS v7

Replaces SDS dated: 10 February 2021

New SDS issue date: 22/08/2024

Abbreviations:

ACGIH: American Conference of Governmental Industrial Hygienists

AICIS: Australian Industrial Chemicals Introduction Scheme

AICS: Australian Inventory of Chemical Substances

AS/NZS: Standards Australia & Standards New Zealand

BCF: Bioconcentration Factor

BEI: Biological Exposure Index

CAS: Chemical Abstracts Service

CCID: Chemical Classification and Information Database

EC_{50}: Effective Concentration, 50 per cent

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

GHS 7: Globally Harmonized System of Classification and Labelling of Chemicals Revision 7, as implemented by the *Model Work Health and Safety Regulations (Hazardous Chemicals) Amendment 2020*

IARC: International Agency for Research on Cancer

IC_{50}: Half Maximal Inhibitory Concentration

LC_{50}: Lethal Concentration, 50 per cent

LD_{50}: Lethal Dose, 50 per cent

LEL: Lower Explosive Limit

LOAEL: Lowest-observed-adverse-effect level

N/R: Not Regulated

NOAEL: No-observed-adverse-effect-level

NOEC: No Observed Effect Concentration

OECD: Organisation for Economic Co-operation and Development

STEL: Short-Term-Exposure Limit

SUSMP: Standard for the Uniform Scheduling of Medicines and Poisons (Poisons Standard)

TLV: Threshold Limit Value

TWA: Time-Weighted Average

WHS (model WHS Regulations): model Work Health and Safety Regulations

WES: Workplace Exposure Standard

UEL: Upper Explosive Limit

References:

- Supplier Safety Data Sheets
- AICIS Chemical Information https://www.industrialchemicals.gov.au/chemical-information
- Safe Work Australia: Hazardous Chemical Information System (HCIS) http://hcis.safeworkaustralia.gov.au/HazardousChemical
- Workplace Exposure Standards for Airborne Contaminants (16 December 2019), published by Safe Work Australia https://www.safeworkaustralia.gov.au/doc/workplace-exposure-standards-airborne-contaminants
- US NLM ChemIDPlus: https://chem.nlm.nih.gov/chemidplus/
- OECD eChemPortal Substance Search https://www.echemportal.org/echemportal/