

SAFETY DATA SHEET



Urea Ammonium Nitrate Liquid

Hybrid-Ag Pty Ltd

Catalogue number: N/A

Version No: 0.1

Issue date: 23/3/2021

Safety Data Sheet according to WHS and ADG requirements

SECTION 1 IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING

Product Identifier

Product name	Urea Ammonium Nitrate Liquid
Synonyms	N/A
Other means of identification	Liquid Fertiliser, UAN

Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses	Fertiliser
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Details of the manufacturer/importer

Registered company name	Hybrid-Ag Pty Ltd
Address	52 Buckler Road, Wangaratta, VIC 3677
Telephone	(03) 5722 7555
Mobile	
Website	www.hybridag.com.au
Email	admin@hybridag.com.au

Emergency telephone number

Association / Organisation	Poisons Information Centre
Emergency telephone numbers	13 11 26
Other emergency telephone numbers	Not Available

SECTION 2 HAZARDS IDENTIFICATION

Classification of the substance or mixture

HAZARDOUS CHEMICAL. NON-DANGEROUS GOODS. According to the Model WHS Regulations and the ADG Code.

Poisons Schedule	Not Applicable
GHS Classification [1]	Hazardous according to the criteria of the Globally Harmonised System of Classification and Labelling of Chemicals (GHS)

Label elements

GHS label elements	Not applicable
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SIGNAL WORD	Warning
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Hazard statement(s)

H319 Causes serious eye irritation.

Precautionary statement(s) Prevention

P264	Causes serious eye irritation
P280	Wash hands and contaminated body thoroughly after handling

Precautionary statement(s) Response

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

Precautionary statement(s) Disposal

P501	Dispose of contents and containers in accordance with local regulations
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SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS**Mixtures**

CAS No	% (weight)	Name
6484-52-2	41-48	Ammonium Nitrate
57-13-6	32-38	Urea
7732-18-5	16-24	Water
N/A	<=0.05	Free Ammonia

SECTION 4 FIRST AID MEASURES**Description of first aid measures**

Eye Contact	If this product comes in contact with eyes: Wash out immediately with water. If irritation continues, seek medical attention. Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.
Skin Contact	If skin contact occurs with concentrate: Flush skin and hair with running water. Seek medical advice in event of irritation.
Inhalation	Move person to fresh air. Obtain medical attention if irritation persists.
Ingestion	Do NOT induce vomiting. Immediately give a glass of water. If large quantities of the product are ingested, contact a Poisons Information Centre or a doctor immediately.

Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5 FIREFIGHTING MEASURES**Extinguishing media**

	There is no restriction on the type of extinguisher which may be used
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Special hazards arising from the substrate or mixture

Fire incompatibility	None known
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Advice for firefighters

Fire Fighting	Non-combustible Alert Fire Brigade and tell them location and nature of hazard. Fire fighters to wear self-contained breathing apparatus (SCBA) and suitable protective clothing
Fire/Explosion Hazard	Decomposition may produce hazardous vapours of Carbon Dioxide, Carbon Monoxide, Nitrogen Oxides, Ammonia

SECTION 6 ACCIDENTAL RELEASE MEASURES**Personal precautions, protective equipment and emergency procedures**

Minor Spills	Sweep up & dispose of.
Major Spills	Sweep into a centralised location and place into labelled drums and dispose of according to local government regulations. Immediately notify emergency services (Police or Fire Brigade) if the spill is too large for you to safely and effectively handle. Prevent by any means available any spillage entering a watercourse.
	Personal protective equipment advice is contained in Section 8 of this SDS

SECTION 7 HANDLING AND STORAGE**Precautions for safe handling**

Safe handling	Wear suitable protective clothing depending on the circumstances as per section 8. Ensure eye bath and safety shower are available and ready for use. Do not mix with other chemicals unless expressly recommended by the manufacturer. Avoid contact with eyes, skin and clothing. Always store in original container.
Other information	Do not allow liquid to evaporate. Solid ammonium nitrate residue can explode.

Conditions for safe storage, including any incompatibilities

Suitable container	Container or tanks manufactured from mild steel, stainless steel, aluminum or certain fiberglass material are suitable. Do not use zinc or copper (brass, bronze, etc) alloys in contact with UAN solution due to corrosion
Storage incompatibilities	None known


PACKAGE MATERIAL INCOMPATIBILITIES

Not Available

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION**Control parameters****OCCUPATIONAL EXPOSURE LIMITS (OEL)****INGREDIENT DATA**

Not Available

Exposure controls

Appropriate engineering controls	Ensure adequate ventilation
Personal protection	 Wear gloves, dust mask, long sleeves, long pants & steel cap boots. Rubber protective clothing or cotton overalls and safety footwear (AS3765/2210).
Eye and face protection	Protective goggles or a face shield may be necessary (AS1336/1337). The requirement for respiratory protection depends on conditions of use. If mists are generated, wear an approved respirator with dust/mist filter (AS1715/1716).
Hands/feet protection	Use of natural rubber, PVC, neoprene or nitrile gloves is recommended, with breakthrough time > 30 minute

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES**Information on basic physical and chemical properties**

Appearance	Clear liquid		
Physical state	Liquid	Relative density (Water = 1)	1.32
Odour	Slight ammonia odour	Partition coefficient n-octanol / water	-1.59 (Urea) -3.1 (Ammonium nitrate)
Odour threshold	Not Available	Auto-ignition temperature (°C)	Not Applicable
pH (as supplied)	6.5-7.5	Decomposition temperature	Not Applicable
Melting point / freezing point (°C)	Not Applicable	Viscosity (cSt)	4.7
Initial boiling point and boiling range (°C)	>100 °C	Molecular weight (g/mol)	Not Available
Flash point (°C)	Not Applicable	Taste	Not Available
Evaporation rate	Not Available	Explosive properties	Not Available
Flammability	Not Applicable	Oxidising properties	Not Available
Upper Explosive Limit (%)	Not Applicable	Surface Tension (dyn/cm or mN/m)	Not Available
Lower Explosive Limit (%)	Not Applicable	Volatile Component (%vol)	Not Available
Vapour pressure (kPa)	0.0042 kgf/cm ² (@ 15.6 °C)	Gas group	Not Available
Solubility in water (g/L)	Easily Soluble in cold and hot water (517g/L) 20°C	pH as a solution	Not Available
Vapour density (Air = 1)	Not Available	VOC g/L	Not Available

SECTION 10 STABILITY AND REACTIVITY

Reactivity	See section 7
Chemical stability	Product is stable under normal conditions of use, storage and temperature.
Possibility of hazardous reactions	None known
Conditions to avoid	High temperatures - components decompose and emit toxic gases. High pressure - explodes if heated under confinement so that pressure builds up. Do not allow product to evaporate to dryness.
Incompatible materials	Avoid contact with zinc or copper (brass, bronze) alloys, combustible, organic or other readily oxidizing materials. Avoid contact with strong acids and chlorates or other strong oxidizers. Contact with alkaline materials may liberate ammonia. Corrosive to brass and copper.
Hazardous decomposition products	This product does not burn, but if involved in a fire, oxides of carbon and nitrogen may be generated. Exposure to heat may liberate ammonia fumes. When the water in UAN solution evaporates, it leaves a residue of solid ammonium nitrate and urea. Solid ammonium nitrate can explode under certain condition.

SECTION 11 TOXICOLOGICAL INFORMATION**Information on toxicological effects**

Acute Oral Rat LD50 > 2000 mg/kg. Long exposure - No data available. There is no definitive information available on carcinogenicity, mutagenicity, target organs or developmental toxicity for this product.

Inhaled	Repeated or prolonged inhalation of spray mists may cause irritation of the respiratory tract, headache, dizziness, transient disorientation and generalized tingling sensation.
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Ingestion	Not found to be toxic by oral exposure. Ingestion of large amounts may cause nausea, vomiting, diarrhea and
Skin Contact	Contact may cause skin irritation, including redness itching, burning and skin damage
Eye	May cause eye irritation including stinging, watering and redness, swelling and eye damage.
Chronic	Extended period of contact may cause irritation in sensitive individuals.

SECTION 12 ECOLOGICAL INFORMATION

Toxicity

Acute/Prolonged toxicity on fish - Rainbow trout LC50 >103 mg/l (96 hours); Flathead minnow LC50 100-500 mg/l (96 hours)

Persistence and degradability

Degradation: The product itself and its products of degradation are not harmful under normal condition of use. Nitrogen both nitric and ammoniac form are used directly by growing plants. Amidic nitrogen hydrolyses and turns into ammonia nitrogen.

Bio accumulative potential

Not applicable for inorganic substance

Mobility in soil

Easy soluble in cold and hot water

SECTION 13 DISPOSAL CONSIDERATIONS

Waste treatment methods

Product / packaging disposal	Recycle containers whenever possible. Product residues and containers should be disposed of in accordance with local government regulations.
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SECTION 14 TRANSPORT INFORMATION

Labels Required

Marine Pollutant	NO
HAZCHEM	Not Applicable

Land transport (ADG): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

SECTION 15 REGULATORY INFORMATION

Safety, health and environmental regulations / legislation specific for the substance or mixture

Environmental Protection Authority (New Zealand) Hazardous Substances and New Organisms Amendment Act 2015
Approval Code HSR002571

SECTION 16 OTHER INFORMATION

Other information

Classification of the preparation and its individual components has drawn on official and authoritative sources.

The 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.

Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

Definitions and abbreviations

PC-TWA;	Permissible Concentration-Time Weighted Average
PC-STEL:	Permissible Concentration-Short Term Exposure Limit
IARC:	International Agency for Research on Cancer
ACGIH:	American Conference of Government Industrial Hygienists
STEL:	Short Term Exposure Limit
TEEL:	Temporary Emergency Exposure Limit
IDLH:	Immediate Danger to Life or Health Concentrations
OSF:	Odour Safety Factor
NOAEL:	No Observed Effects Level
TLV:	Threshold Limit Value
LOD:	Limit Of Detection
OTV:	Odour Threshold Value
BCF:	Bio Concentration Factors
BEI:	Biological Exposure Index

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End of SDS