

Hyqual Australia Chemwatch: 40-0283 Version No: 3.1.1.1 Safety Data Sheet according to WHS and ADG requirements Chemwatch Hazard Alert Code: 2

Issue Date: **14/11/2018** Print Date: **20/11/2018** S.GHS.AUS.EN

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

Product Identifier

Product name	Aron Alpha Liquid
Chemical Name	ethyl cyanoacrylate
Synonyms	Not Available
Proper shipping name	AVIATION REGULATED LIQUID, N.O.S. Not subject to this Code (see SP 106) (contains ethyl cyanoacrylate)
Other means of identification	Not Available

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

Relevant identified uses Use according to manufacturer's directions.

Details of the supplier of the safety data sheet

Registered company name	Hyqual Australia	Toagosei (Toagosei America)
Address	31 Enterprise Street Caloundra QLD 4551 Australia	1450 W Main Street West Jefferson OH 43162 United States
Telephone	+61 7 5492 7122	+1 614 718 3855
Fax	+61 7 5492 7144	+1 614 718 3866
Website	www.hyqual.com	Not Available
Email	enquiries@hyqual.com	http://www.aronalpha.net/msds.html

Emergency telephone number

Association / Organisation	Not Available	Not Available
Emergency telephone numbers	13 11 26 (Poisons Info. Hotline)	Not Available
Other emergency telephone numbers	Not Available	Not Available

SECTION 2 HAZARDS IDENTIFICATION

Classification of the substance or mixture

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

COMBUSTIBLE LIQUID, regulated for storage purposes only

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Poisons Schedule	S5	
Classification ^[1]	Flammable Liquid Category 4, Skin Corrosion/Irritation Category 2, Eye Irritation Category 2A, Specific target organ toxicity - single exposure Category 3 (respiratory tract irritation)	
Legend:	1. Classified by Chernwatch; 2. Classification drawn from HSIS; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI	
Label elements		
Hazard pictogram(s)		
SIGNAL WORD	WARNING	
Hazard statement(s)		
H227	Combustible liquid.	
H315	Causes skin irritation.	
H319	Causes serious eye irritation.	
H335	May cause respiratory irritation.	

Precautionary statement(s) Prevention

P210	Keep away from heat/sparks/open flames/hot surfaces No smoking.
P271	Use only outdoors or in a well-ventilated area.
P261	Avoid breathing mist/vapours/spray.
P280	Wear protective gloves/protective clothing/eye protection/face protection.

Precautionary statement(s) Response

• • • •	•
P362	Take off contaminated clothing and wash before reuse.
P370+P378	In case of fire: Use alcohol resistant foam or fine spray/water fog for extinction.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312	Call a POISON CENTER or doctor/physician if you feel unwell.
P337+P313	If eye irritation persists: Get medical advice/attention.
P302+P352	IF ON SKIN: Wash with plenty of soap and water.
P304+P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

Precautionary statement(s) Storage

-	ce. Keep cool.
P405 Store locked up.	

Precautionary statement(s) Disposal

P501	Dispose of contents/container in accordance with local regulations.
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SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Substances

See section below for composition of Mixtures

Mixtures

CAS No	%[weight]	Name
7085-85-0	>99	ethyl cyanoacrylate

SECTION 4 FIRST AID MEASURES

Eye Contact	 Eyelid Adhesion Wash thoroughly with water and apply moist pad; maintain in position. DO NOT force separation. Transport to hospital, or doctor without delay. Minor eye contamination should be treated by copious washing with water or 1% sodium carbonate solution. The eye will generally open without further action, typically in one to two days. there should be no residual damage. Adhesive introduced Removal of contact lenses after eye injury should only be undertaken by skilled personnel. Adhesive in the Eye: Adhesive will attach itself to eye proteins and will disassociate from these over intermittent periods, usually within several hours. This will result in weeping until clearance of the protein complex. It is important to understand that disassociation will normally occur within a matter of hours even with gross contamination.
Skin Contact	 Cyanoacrylate adhesives is a very fast setting and strong. they bond human tissues including skin in seconds. Experience shows that accidents involving cyanoacrylates are best handled by passive, non-surgical first aid. Skin Contact: Remove excessive adhesive. Soak in warm water - the adhesive should loosen from the skin in several hours. Dried adhesive does not present a health hazard. Contact with clothes, fabric, rags or tissues may generate heat, and strong irritating odours; skin burns may also ensue. Skin Adhesion: IMMEDIATELY immerse affected areas in warm soapy water. DO NOT force bonded surfaces apart. Use a gentle rolling action to peel surfaces apart if possible. It may be necessary to use a blunt edge such as a spatula or spoon handle. Do NOT attempt to pull the surfaces apart with a direct opposing action. Remove any cured material with warm, soapy water. Seek medical attention without delay. A solvent such as acetone may be used (with carel) to separate bonded skin surfaces. NEVER use solvent near eyes, mouth, cuts, or abrasions.
Inhalation	 If fumes or combustion products are inhaled remove from contaminated area. Lay patient down. Keep warm and rested. Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures. Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary. Transport to hospital, or doctor. If fumes or combustion products are inhaled remove from contaminated area. Lay patient down. Keep warm and rested. Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures. Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary. Transport to hospital, or doctor. If fumes or combustion products are inhaled remove from contaminated area. Lay patient down. Keep warm and rested. Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures. Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if

	 necessary. Transport to hospital, or doctor, without delay.
Ingestion	 Immediately give a glass of water. First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor. For material bonded in the mouth seek medical/dental attention. If lips are accidentally stuck together apply lots of warm water and encourage maximum wetting and pressure from saliva inside the mouth. Peal or roll lips apart. Do NOT attempt to pull the lips with direct opposing action. It is almost impossible to swallow cyanoacrylates. The adhesive solidifies and adheres in the mouth. Saliva will lip the adhesion in one or two days.

Indication of any immediate medical attention and special treatment needed

It should never be necessary to use surgical means to separate tissues which become accidentally bonded. The action of physiological fluids or warm soapy water will cause this adhesive to eventually fail. . Treat symptomatically.

SECTION 5 FIREFIGHTING MEASURES

Extinguishing media

- Foam.
- Dry chemical powder.
- BCF (where regulations permit).
- Carbon dioxide.
- Water spray or fog Large fires only.

Special hazards arising from the substrate or mixture

Fire Incompatibility	Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result
Advice for firefighters	
Fire Fighting	 Alert Fire Brigade and tell them location and nature of hazard. Wear full body protective clothing with breathing apparatus. Prevent, by any means available, spillage from entering drains or water course. Use water delivered as a fine spray to control fire and cool adjacent area. Avoid spraying water onto liquid pools. DO NOT approach containers suspected to be hot. Cool fire exposed containers with water spray from a protected location.
Fire/Explosion Hazard	 Combustible. Slight fire hazard when exposed to heat or flame. Heating may cause expansion or decomposition leading to violent rupture of containers. On combustion, may emit toxic fumes of carbon monoxide (CO). May emit acrid smoke. Mists containing combustible materials may be explosive. Combustion products include: carbon dioxide (CO2) nitrogen oxides (NOx) other pyrolysis products typical of burning organic material.
HAZCHEM	2Z

SECTION 6 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

See section 8

Environmental precautions

See section 12

Methods and material for containment and cleaning up

Minor Spills	 If cloth has been used to wipe up spills, immediately soak the cloth in water to produce polymerisation and prevent possibility of autoignition. Clean up all spills immediately. Avoid breathing vapours and contact with skin and eyes. Control personal contact with the substance, by using protective equipment. Contain and absorb spill with sand, earth, inert material or vermiculite. Wipe up. Place in a suitable, labelled container for waste disposal.
Major Spills	 Moderate hazard. Clear area of personnel and move upwind. Alert Fire Brigade and tell them location and nature of hazard. Wear breathing apparatus plus protective gloves. Prevent, by any means available, spillage from entering drains or water course. No smoking, naked lights or ignition sources. Increase ventilation.

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

SECTION 7 HANDLING AND STORAGE

Safe handling	 DO NOT allow clothing wet with material to stay in contact with skin Avoid all personal contact, including inhalation. Wear protective clothing when risk of exposure occurs. Use in a well-ventilated area. Prevent concentration in hollows and sumps. DO NOT enter confined spaces until atmosphere has been checked. Avoid smoking, naked lights or ignition sources. Avoid contact with incompatible materials.
Other information	 Store in original containers. Keep containers securely sealed. Store in a cool, dry, well-ventilated area. Store away from incompatible materials and foodstuff containers. Protect containers against physical damage and check regularly for leaks. Observe manufacturer's storage and handling recommendations contained within this SDS.
Conditions for safe storage,	including any incompatibilities

Suitable container	 Metal can or drum Packaging as recommended by manufacturer. Check all containers are clearly labelled and free from leaks.
Storage incompatibility	 Segregate from alcohol, water. Avoid reaction with oxidising agents

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters

OCCUPATIONAL EXPOSURE LIN	MITS (OEL)
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INGREDIENT DATA

Not Available

EMERGENCY LIMITS

Ingredient	Material name	TEEL-1	TEEL-2	TEEL-3
Aron Alpha Liquid	Not Available	Not Available	Not Available	Not Available
Ingredient	Original IDLH		Revised IDLH	
ethyl cyanoacrylate	Not Available		Not Available	

Exposure controls

Appropriate engineering controls	Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection. The basic types of engineering controls are: Process controls which involve changing the way a job activity or process is done to reduce the risk. Enclosure and/or isolation of emission source which keeps a selected hazard "physically" away from the worker and ventilation that strategically "adds" and "removes" air in the work environment. Ventilation can remove or dilute an air contaminant if designed properly. The design of a ventilation system must match the particular process and chemical or contaminant in use. Employers may need to use multiple types of controls to prevent employee overexposure.
Personal protection	
Eye and face protection	 Safety glasses with side shields. Chemical goggles. Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable.
Skin protection	See Hand protection below
Hands/feet protection	 Wear chemical protective gloves, e.g. PVC. Wear safety footwear or safety gumboots, e.g. Rubber The selection of suitable gloves does not only depend on the material, but also on further marks of quality which vary from manufacturer to manufacturer. Where the chemical is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application. The exact break through time for substances has to be obtained from the manufacturer of the protective gloves and has to be observed when making a final choice. Personal hygiene is a key element of effective hand care. Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturiser is recommended. Polyethylene gloves
Body protection	See Other protection below
Other protection	 Overalls. P.V.C. apron. Barrier cream. Skin cleansing cream. Eye wash unit.

Respiratory protection

Type A-P Filter of sufficient capacity. (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, ANSI Z88 or national equivalent)

- Cartridge respirators should never be used for emergency ingress or in areas of unknown vapour concentrations or oxygen content.
- The wearer must be warned to leave the contaminated area immediately on detecting any odours through the respirator. The odour may indicate that the mask is not functioning properly,
 - that the vapour concentration is too high, or that the mask is not properly fitted. Because of these limitations, only restricted use of cartridge respirators is considered appropriate.
- Cartridge performance is affected by humidity. Cartridges should be changed after 2 hr of continuous use unless it is determined that the humidity is less than 75%, in which case, cartridges can be used for 4 hr. Used cartridges should be discarded daily, regardless of the length of time used

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	Clear, colourless liquid with an irritating odour; not miscible with water.		
Physical state	Liquid	Relative density (Water = 1)	1.05
Odour	Not Available	Partition coefficient n-octanol / water	Not Available
Odour threshold	Not Available	Auto-ignition temperature (°C)	Not Available
pH (as supplied)	Not Applicable	Decomposition temperature	Not Available
Melting point / freezing point (°C)	-29 (freezing point)	Viscosity (cSt)	2 cPs
Initial boiling point and boiling range (°C)	62	Molecular weight (g/mol)	Not Applicable
Flash point (°C)	83	Taste	Not Available
Evaporation rate	Not Available	Explosive properties	Not Available
Flammability	Combustible.	Oxidising properties	Not Available
Upper Explosive Limit (%)	Not Available	Surface Tension (dyn/cm or mN/m)	Not Available
Lower Explosive Limit (%)	1.7	Volatile Component (%vol)	Not Available
Vapour pressure (kPa)	0.02 @ 20C	Gas group	Not Available
Solubility in water (g/L)	Immiscible	pH as a solution (1%)	Not Available
Vapour density (Air = 1)	~3	VOC g/L	Not Available

SECTION 10 STABILITY AND REACTIVITY

Reactivity	See section 7
Chemical stability	 Unstable in the presence of incompatible materials. Product is considered stable. Hazardous polymerisation will not occur.
Possibility of hazardous reactions	See section 7
Conditions to avoid	See section 7
Incompatible materials	See section 7
Hazardous decomposition products	See section 5

SECTION 11 TOXICOLOGICAL INFORMATION

Information on toxicological effects

	rsons. The body's response to such irritation can cause further lung damage. ted by the material during the course of normal handling, may be damaging to the health of the ultimately loss of consciousness.
Uncured cyanoacrylates are difficult to swallow as saliva non-hazardous.	a cures the surface of the adhesive with negligible bonding. The cured material is considered to be
This material can cause inflammation of the skin on con The material may accentuate any pre-existing dermatitis Open cuts, abraded or irritated skin should not be expos Entry into the blood-stream, through, for example, cuts, use of the material and ensure that any external damage Bonds eyelids instantly.	s condition sed to this material abrasions or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the
This material can cause eye irritation and damage in so	me persons. Bonds eyelids instantly.
	airways disease, involving difficulty breathing and related whole-body problems. beated and prolonged exposure by skin contact or inhalation, a small proportion of individuals
TOXICITY Not Available	IRRITATION Not Available
TOXICITY Not Available	IRRITATION Not Available
	Inhalation of vapours or aerosols (mists, fumes), general individual. Prolonged exposure may cause headache, nausea and Uncured cyanoacrylates are difficult to swallow as salivinon-hazardous. This material can cause inflammation of the skin on con The material may accentuate any pre-existing dermatitis Open cuts, abraded or irritated skin should not be expose Entry into the blood-stream, through, for example, cuts, use of the material and ensure that any external damage [Bonds eyelids instantly. This material can cause eye irritation and damage in so Long-term exposure to respiratory irritants may result in Dermatitis may result from prolonged exposures. On replayed evelop allergic sensitivities. TOXICITY Not Available TOXICITY

Legend:	1. Value obtained from Europe ECHA Registered Substa data extracted from RTECS - Register of Toxic Effect of u		rom manufacturer's SDS. Unless otherwise specified
ETHYL CYANOACRYLATE	particles) and is completely reversible after exposure cea For methyl cyanoacrylate (MCA) and ethyl cyanoacrylate Studies show that the key toxicological features of MCA a and skin irritation on repeated exposure but inconclusive	an occur after exposure to high levels of l in a non-atopic individual, with sudden ons teria for diagnosis of RADS include a rev ge testing, and the lack of minimal lymph disorder with rates related to the concern isorder that occurs as a result of exposu uses. The disorder is characterized by dif (ECA) and ECA are as a result of local activity at evidence of skin sensitization and asthma	highly irritating compound. Main criteria for diagnosing set of persistent asthma-like symptoms within minutes to ersible airflow pattern on lung function tests, moderate to ocytic inflammation, without eosinophilia. RADS (or tration of and duration of exposure to the irritating re due to high concentrations of irritating substance (often ficulty breathing, cough and mucus production.
Acute Toxicity	0	Carcinogenicity	0
Skin Irritation/Corrosion	×	Reproductivity	0
Serious Eye Damage/Irritation	×	STOT - Single Exposure	×
Respiratory or Skin sensitisation	\otimes	STOT - Repeated Exposure	0
Mutagenicity	\otimes	Aspiration Hazard	0
			Data available but does not fill the criteria for classification Data available to make classification

🚫 - Data Not Available to make classification

SECTION 12 ECOLOGICAL INFORMATION

Toxicity

Aron Alpha Liquid	ENDPOINT Not Available	TEST DURATION (HR) Not Available	SPECIES Not Available	VALUE Not Available	SOURCE Not Available
ethyl cyanoacrylate	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURC
	LC50	96	Fish	0.662mg/L	3
	EC50	96	Algae or other aquatic plants	2.407mg/L	3

Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 3. EPIWIN Suite V3.12 (QSAR) - Aquatic Toxicity Data (Estimated) 4. US EPA, Ecotox database - Aquatic Toxicity Data 5. ECETOC Aquatic Hazard Assessment Data 6. NITE (Japan) - Bioconcentration Data 7. METI (Japan) - Bioconcentration Data 8. Vendor Data

DO NOT discharge into sewer or waterways.

Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
ethyl cyanoacrylate	LOW	LOW

Bioaccumulative potential

Ingredient	Bioaccumulation
ethyl cyanoacrylate	LOW (LogKOW = 1.4174)

Mobility in soil

Ingredient	Mobility
ethyl cyanoacrylate	LOW (KOC = 6.847)

SECTION 13 DISPOSAL CONSIDERATIONS

Waste treatment methods

Product / Packaging disposal	 Recycle wherever possible or consult manufacturer for recycling options. Consult State Land Waste Authority for disposal. Bury or incinerate residue at an approved site. Recycle containers if possible, or dispose of in an authorised landfill.
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SECTION 14 TRANSPORT INFORMATION

Marine Pollutant	NO Not Applicable
HAZCHEM	22

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

Air transport (ICAO-IATA / DGR)

UN number	3334		
UN proper shipping name	Aviation regulated liquid, n.o.s. * (contains ethyl cyanoacrylate)		
Transport hazard class(es)	ICAO/IATA Class ICAO / IATA Subrisk ERG Code	9 Not Applicable 9A	
Packing group	Not Applicable		
Environmental hazard	Not Applicable		
Special precautions for user		Qty / Pack Packing Instructions	A27 964 450L 964 450L Y964 30 kg G

Sea transport (IMDG-Code / GGVSee): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Transport in bulk according to Annex II of MARPOL and the IBC code Not Applicable

SECTION 15 REGULATORY INFORMATION

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

ETHYL CYANOACRYLATE(7085-85-0) IS FOUND ON THE FOLLOWING REGULATORY LISTS

Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals Australia Inventory of Chemical Substances (AICS)	Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Appendix E (Part 2)
	Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 5

National Inventory Status

National Inventory	Status
Australia - AICS	Υ
Canada - DSL	Υ
Canada - NDSL	N (ethyl cyanoacrylate)
China - IECSC	Υ
Europe - EINEC / ELINCS / NLP	Υ
Japan - ENCS	Υ
Korea - KECI	Y
New Zealand - NZIoC	Υ
Philippines - PICCS	Y
USA - TSCA	Υ
Legend:	Y = All ingredients are on the inventory N = Not determined or one or more ingredients are not on the inventory and are not exempt from listing(see specific ingredients in brackets)

SECTION 16 OTHER INFORMATION

Revision Date	14/11/2018
Initial Date	09/10/2013

SDS Version Summary

Version	

end of SDS

Aron Alpha Liquid

2.1.1.1

09/10/2013

Supplier Information

Other information

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.

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 Governmental Industrial Hygienists STEL: Short Term Exposure Limit TEEL: Temporary Emergency Exposure Limit, IDLH: Immediately Dangerous to Life or Health Concentrations OSF: Odour Safety Factor NOAEL :No Observed Adverse Effect Level LOAEL: Lowest Observed Adverse Effect Level LOAEL: Lowest Observed Adverse Effect Level LOD: Limit Of Detection OTV: Odour Threshold Value BCF: BioConcentration Factors BEI: Biological Exposure Index

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