

Product name: ELECTROLYTE A3-I
Revision Date: 2018-11-08
Document No.: M0011

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SDS-ID: AU-EN/18.0

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

Product identifier

Product name: ELECTROLYTE A3-I
Cat. No. 40900012 (part of 40900011)
Container size: 960 ml

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

Application: For electrolytic preparation of metallographic specimens. (*)

Details of the supplier of the safety data sheet

Supplier: Struers Australia
27 Mayneview Street
Milton QLD 4064, Australia

Responsible for safety data sheet authoring: Responsible for safety data sheet authoring: DHI
Any questions to the contents of this safety data sheet should be sent to:
struers@struers.dk

Emergency telephone number

Australian Poisons Information Centre: 13 11 26.

+61 7 3512 9600
(Only during office hours)

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SECTION 2: HAZARDS IDENTIFICATION

Classification of the substance or mixture

WHS:
Flammable liquid - Category 2
Acute toxicity – oral – Category 3
Acute toxicity - dermal - Category 3
Acute toxicity - inhalation - Category 3
Skin corrosion/irritation - Category 2
Serious eye damage/eye irritation - Category 2
Specific target organ toxicity (single exposure) - Category 1

Label elements



Danger

Contains:

Methanol
2-Butoxyethanol

H225 Highly flammable liquid and vapour.
H301 + H311 + H331 Toxic if swallowed, in contact with skin or if inhaled.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H370 Causes damage to organs.
P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
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.
P307 + P311 IF exposed: Call a POISON CENTER or doctor/physician.

Other hazards

The product is highly flammable, and explosive vapours/air mixtures may be formed even at normal room temperatures. Lethal dose for an adult person: approx. 30-250 ml (Methanol). Organic solvents may be absorbed into the body by inhalation, skin contact and ingestion and cause permanent damage to the nervous system, including the brain.

PBT/vPvB: No information available.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Mixtures

The product contains: organic solvents.

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WHS:

%:	CAS-No.:	EC No.:	REACH Reg. No:	Chemical name:	Hazard classification:	Notes:
55-75	67-56-1	200-659-6	01-2119433307-44-0001	Methanol	Flam. Liq. 2;H225 Acute Tox. 3;H331 Acute Tox. 3;H311 Acute Tox. 3;H301 STOT SE 1;H370	
25-45	111-76-2	203-905-0	-	2-Butoxyethanol	Acute Tox. 4;H332 Acute Tox. 4;H312 Acute Tox. 4;H302 Eye Irrit. 2;H319 Skin Irrit. 2;H315	

References: The full text for all hazard statements is displayed in section 16.

SECTION 4: FIRST AID MEASURES

Description of first aid measures

Burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital.

Inhalation: Move injured person into fresh air and keep person calm under observation. If necessary, seek hospital and bring these instructions. Unconscious persons must be locked on their side, head low and kept warm. CALL AN AMBULANCE. Bring along these instructions to the hospital.

Skin contact: Flush immediately with plenty of water and remove contaminated clothing. Call an ambulance, continue to rinse during transportation to hospital a bring these instructions.

Eye contact: Immediately flush with plenty of water for at least 15 minutes. Remove any contact lenses and open eyelids widely. If irritation persists: Continue flushing during transport to hospital. Bring along these instructions.

Ingestion: Immediately rinse mouth and drink plenty of water. Induce vomiting, if person is conscious. Rinse mouth again and drink 1-2 glasses of water and 40 ml ethanol (liqueur). Immediate transportation to hospital. Bring along these instructions.

Most important symptoms and effects, both acute and delayed

Symptoms/effects: See section 11 for more detailed information on health effects and symptoms.

Indication of any immediate medical attention and special treatment needed

Medical attention/treatments: Treat symptomatically.

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SECTION 5: FIREFIGHTING MEASURES

Extinguishing media

Extinguishing media: Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog. Cool containers exposed to heat with water spray and remove container, if no risk is involved.

Do not use water jet as an extinguisher, as this will spread the fire.

Special hazards arising from the substance or mixture

Specific hazards: The product is flammable, and heating may generate vapours which may form explosive vapour/air mixtures. Vapours are heavier than air and may travel along the floor and in the bottom of containers. Vapours may be ignited by a spark, a hot surface or an ember.

Advice for firefighters

Protective equipment for fire-fighters: Use air-supplied respirator, gloves and protective goggles.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Protective equipment: Do not smoke or use open fire, or other sources of ignition. Avoid inhalation of vapours and contact with skin and eyes. For personal protection, see section 8. (*)

Emergency procedures: No specific recommendations. For personal protection, see section 8. (*)

Environmental precautions

Environmental precautions: Avoid discharge into water courses or onto the ground.

Methods and material for containment and cleaning up

Spill Cleanup Methods: Remove sources of ignition. Cover large spillages with foam. Dam and absorb spillages with sand, earth or other non-combustible material. Do not use sawdust or other combustible material.

Reference to other sections

References: For personal protection, see section 8. For waste disposal, see section 13.

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SECTION 7: HANDLING AND STORAGE

Precautions for safe handling

Safe handling advice: Avoid inhalation of vapours and contact with skin and eyes. Observe good chemical hygiene practices.

Technical measures: Do not smoke or use open fire or other sources of ignition. Wash hands before breaks and before smoking, eating or drinking.

Technical precautions: Provide easy access to water supply or an emergency shower.

Conditions for safe storage, including any incompatibilities

Technical measures for safe storage: Follow rules for flammable liquids.

Storage conditions: Store in locked poison cupboard/room. Store in a cool and well-ventilated place. Avoid contact with oxidising agents. Keep away from food, drink and animal feeding stuffs.

Specific end use(s)

Specific use(s): No information available.

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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Occupational exposure limits:

<u>CAS-No.:</u>	<u>Chemical name:</u>	<u>As:</u>	<u>Exposure limits:</u>		<u>Type:</u>	<u>Notes:</u>	<u>References:</u>
67-56-1	Methyl alcohol	-	200 ppm	262 mg/m3	TWA	Sk	NOHSC
		-	250 ppm	328 mg/m3	STEL	Sk; 15min	
111-76-2	2-Butoxyethanol	-	20 ppm	96.9 mg/m3	TWA	Sk	NOHSC
		-	50 ppm	242 mg/m3	STEL	Sk; 15min	

Notes: Sk: Skin absorption.

Exposure controls

Engineering measures: Provide adequate ventilation. Observe occupational exposure limits and minimise the risk of inhalation of vapours. Provide access to washing facilities including soap, skin cleanser and fatty cream.

Personal protection: Personal protection equipment should be chosen according to relevant AS/NZS standards and in discussion with the supplier of the personal protective equipment.

Respiratory equipment: In case of inadequate ventilation and work of brief duration, use suitable respiratory equipment. Use respiratory equipment with gas filter, type AX.

Hand protection: Wear protective gloves. Laminate (PE/EVOH) gloves are recommended. The most suitable glove must be chosen in consultation with the gloves supplier, who can inform about the breakthrough time of the glove material.

Eye protection: Risk of splashes: Wear goggles/face shield.

Skin protection: Wear apron or protective clothing in case of splashes.

Hygiene measures: Wash hands after handling.

Environmental Exposure Controls: Not available.

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SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

(*)

<u>Form:</u>	Liquid.
<u>Colour:</u>	Clear.
<u>Odour:</u>	odour of alcohol
<u>Odour threshold:</u>	Not available.
<u>pH:</u>	Not available.
<u>Melting point:</u>	Not available.
<u>Boiling point:</u>	65°C
<u>Flash point:</u>	10°C
<u>Evaporation rate:</u>	Not available.
<u>Flammability (solid, gas):</u>	Not available.
<u>Explosion limits:</u>	5,5-26,5 %
<u>Vapour pressure:</u>	Not available.
<u>Vapour density:</u>	Not available.
<u>Relative density:</u>	0,82
<u>Solubility:</u>	Miscible with water.
<u>Partition coefficient (n-octanol/water):</u>	Not available.
<u>Auto-ignition temperature (°C):</u>	Not available.
<u>Decomposition temperature (°C):</u>	Not available.
<u>Viscosity:</u>	Not available.
<u>Explosive properties:</u>	Not available.
<u>Oxidising properties:</u>	Not available.

Other information

Other data: Volatile Organic Compound (VOC): 800 g/l (calculated)

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SECTION 10: STABILITY AND REACTIVITY

Reactivity

Reactivity: No data available.

Chemical stability

Stability: Stable under normal temperature conditions.

Possibility of hazardous reactions

Hazardous Reactions: No data available.

Conditions to avoid

Conditions/materials to avoid: Avoid exposing to heat and contact with strong oxidising substances.

Incompatible materials

Incompatible materials: No information available.

Hazardous decomposition products

Hazardous decomposition products: When heated, vapours/gases hazardous to health may be formed.

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SECTION 11: TOXICOLOGICAL INFORMATION

Information on toxicological effects

<u>Acute Toxicity (Oral):</u>	Toxic if swallowed.
<u>Acute Toxicity (Dermal):</u>	Toxic in contact with skin.
<u>Acute Toxicity (Inhalation):</u>	Toxic if inhaled.
<u>Skin Corrosion/Irritation:</u>	Causes skin irritation.
<u>Serious eye damage/irritation:</u>	Causes serious eye irritation.
<u>Respiratory or skin sensitisation:</u>	Based on available data, the classification criteria are not met.
<u>Germ cell mutagenicity:</u>	Based on available data, the classification criteria are not met.
<u>Carcinogenicity:</u>	Based on available data, the classification criteria are not met. National Toxicology Program (NTP): No. IARC Cancer Review: Group 3 for 2-Butoxyethanol.
<u>Reproductive Toxicity:</u>	Based on available data, the classification criteria are not met.
<u>STOT - Single exposure:</u>	Causes damage to organs.
<u>STOT - Repeated exposure:</u>	Based on available data, the classification criteria are not met.
<u>Aspiration hazard:</u>	Based on available data, the classification criteria are not met.
<u>Inhalation:</u>	Vapours may irritate throat and respiratory system and cause coughing. Vapours have a narcotic effect and may cause headache, fatigue, dizziness and nausea. In serious cases, unconsciousness and permanent damage to the nervous system, including the brain, and liver may be seen.
<u>Skin contact:</u>	Contains components which may penetrate the skin.
<u>Ingestion:</u>	Even small amounts (30-250 ml methanol) may be fatal. Symptoms are stomach ache, nausea, vomiting, dullness, visual disorder and blindness. Furthermore, ingestion may lead to the same symptoms as when inhaled. Note: Ethanol acts against methanol poisoning.
<u>Specific effects:</u>	Frequent inhalation of even small concentrations may cause irritability, fatigue and memory failure and eventually permanent damage to the nervous system, including the brain. The product contains butoxyethanol which is suspected of having harmful longterm effects on the kidneys and nervous system. In serious cases absorption of methanol in the body may lead to damage to the eyesight.

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SECTION 12: ECOLOGICAL INFORMATION

Toxicity

Ecotoxicity: The product is not expected to be hazardous to the environment.

Persistence and degradability

Degradability: The product is easily biodegradable.

Bioaccumulative potential

Bioaccumulative potential: The product is not bioaccumulating.

Mobility in soil

Mobility: No data available.

Results of PBT and vPvB assessment

PBT/vPvB: No information available.

Other adverse effects

Other adverse effects: No information available.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste treatment methods

Waste from residues: Dispose of waste and residues in accordance with local authority requirements.
For personal protection, see section 8.
Hazardous characteristics of waste: H3 (Flammable liquids) and H6.1 (Poisonous, acute) (*)

Contaminated packaging: Dispose of waste and residues in accordance with local authority requirements.

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SECTION 14: TRANSPORT INFORMATION

The product is covered by international regulation on the transport of dangerous goods (IMDG, IATA).

UN number

UN-No: 1992

UN proper shipping name

Proper Shipping Name: FLAMMABLE LIQUID, TOXIC, N.O.S.
(Methanol)

Additional IMDG information:
EmS: F-E, S-D
MFAG: 19

Transport hazard class(es)

Class: 3 (6.1)

Packing group

PG: II

Environmental hazards

Marine pollutant: No.

Environmentally Hazardous substance: No.

Special precautions for user

Special precautions: None known.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Transport in bulk: Not relevant.

SECTION 15: REGULATORY INFORMATION

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

Special provisions: AICS: Listed.

National regulation: Work Health and Safety Regulations 2011, with amendments.
National model Code of Practice for the Labelling of Workplace Hazardous Chemicals (2011), with amendments.
National model Code of Practice for the Preparation of Safety Data Sheets for Hazardous Chemicals (2011), with amendments.
Workplace exposure standards for airborne contaminants (2018).
Hazardous Waste (Regulation of Exports and Imports) Act 1989, with amendments.
The Industrial Chemicals (Notification and Assessment) Act 1989, as amended.

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SECTION 16: OTHER INFORMATION

The user must be instructed in the proper work procedure and be familiar with the contents of these instructions.
The following sections contain revisions or new statements: 1, 6, 9, 13.
The (*) indicates the changes made with respect to the previous version.

Approved by DHI.



Additional information: Classification according to WHS Regulations 2011:
Calculation method.

Wording of H-statements:

H225	Highly flammable liquid and vapour.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H311	Toxic in contact with skin.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.
H332	Harmful if inhaled.
H370	Causes damage to organs.

The information on this data sheet represents our current data and is reliable provided that the product is used under the prescribed conditions and in accordance with the application specified on the packaging and/or in the technical guidance literature. Any other use of the product which involves using the product in combination with any other product or any other process is the responsibility of the user.

Made by DHI - Environment and Toxicology, Agern Allé 5, DK-2970 Hørsholm, Denmark.
www.dhigroup.com.