Safety Data Sheet LUGOL'S IODINE (containing acetic acid)

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SECTION 1: Identification

GHS Product identifier

Product name	LUGOL'S IODINE (containing acetic acid)
Product number	1441/

Recommended use of the chemical and restrictions on use

Product type: Water solution of iodine/potassium iodide.

Microbiological staining.

Supplier's details

Name	ChemSupply Australia Pty Ltd
Address	38-50 Bedford Street 5013 Gillman South Australia Australia
Telephone	08 8440 2000
email	www.chemsupply.com.au

Emergency phone number

CHEMCALL 1800 127 406 (Australia) / +64-4-917-9888 (International)

SECTION 2: Hazard identification

General hazard statement

Not classified as dangerous goods according to the Australian Dangerous Goods Code (ADG).

Classified as Hazardous according to the Globally Harmonised System of classification and labelling of Chemicals (GHS) including Work, Health and Safety regulations, Australia.

Classification of the substance or mixture

GHS classification in accordance with: UN GHS revision 7

- Skin corrosion/irritation, Cat. 2
- Serious eye damage/eye irritation, Cat. 2A
- Specific target organ toxicity following repeated exposure, Cat. 2

GHS label elements, including precautionary statements

Pictograms

Signal word	**Warning**
Hazard statement(s)	
H315	Causes skin irritation
H319	Causes serious eye irritation
H373	May cause damage to organs thyroid through prolonged or repeated exposure [oral]
Precautionary statement(s)	
P260	Do not breathe dust/fume/gas/mist/vapors/spray.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P302+P352	IF ON SKIN: Wash with plenty of water/soap
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P314	Get medical advice/attention if you feel unwell.
P332+P313	If skin irritation occurs: Get medical advice/attention.
P337+P313	If eye irritation persists: Get medical advice/attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P390	Absorb spillage to prevent material-damage.
P501	Dispose of contents/container to an approved waste disposal facility

SECTION 3: Composition/information on ingredients

Mixtures

Other components either not classified as Hazardous under the GHS, or below cut-off concentrations to be classified as Hazardous.

Components

Component	CAS no.	Concentration
Water (EC no.: 231-791-2)	**7732-18-5**	**> 75 % (weight)**
CLASSIFICATIONS: No data available. HAZARDS: No data available.		
Acetic acid (EC no.: 200-580-7; Index no.: 607-002-00-6)	**64-19-7**	**< 10 % (weight)**
CLASSIFICATIONS: Flammable liquids, Cat. 3; Skin corrosion/irritation, Cat. 1A. HAZARDS: H226 - Flammable liquid and vapor; H314 - Causes severe skin burns and eye damage. [SCLs/M-factors/ATEs]: Skin Corr. 1A; H314: C ≥ 90 %; Skin Corr. 1B; H314: 25 % ≤ C < 90 %; Skin Irrit. 2; H315: 10 % ≤ C < 25 %; Eye Irrit. 2; H319: 10 % ≤ C < 25 %		
Potassium iodide (EC no.: 231-659-4)	**7681-11-0**	**< 10 % (weight)**
CLASSIFICATIONS: Specific target organ toxicity following repeated exposure, Cat. 1. HAZARDS: H372 - Causes damage to organs [organs] through prolonged or repeated exposure [route].		
Iodine (EC no.: 231-442-4; Index no.: 053-001-00-3)	**7553-56-2**	**< 5 % (weight)**
CLASSIFICATIONS: Acute toxicity, inhalation, Cat. 4; Acute toxicity, dermal, Cat. 4; Hazardous to the aquatic environment, short-term (acute), Cat. 1. HAZARDS: H312 - Harmful in contact with skin; H332 - Harmful if inhaled; H400 - Very toxic to aquatic life.		

SECTION 4: First-aid measures

Description of necessary first-aid measures

General advice	Consult a physician. Show this safety data sheet to the doctor in attendance. First Aid Facilities: Maintain eyewash fountain in work area.
If inhaled	If inhaled, remove from contaminated area to fresh air immediately. Apply artificial respiration if not breathing. If breathing is difficult, give oxygen. Immediately obtain medical aid if cough or other symptoms appear.

In case of skin contact	Wash affected areas with copious quantities of water immediately. Remove contaminated clothing and wash before re-use. Seek medical advice if effects persist.
In case of eye contact	If contact with the eye(s) occurs, wash with copious amounts of water for approximately 15 minutes holding eyelid(s) open. Take care not to rinse contaminated water into the non-affected eye. Seek medical attention. If rapid recovery does not occur, obtain medical attention.
If swallowed	Rinse mouth thoroughly with water immediately. DO NOT INDUCE VOMITING. Seek medical advice if effects persist.

Most important symptoms/effects, acute and delayed
The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

Indication of immediate medical attention and special treatment needed, if necessary
Treat symptomatically based on judgement of doctor and individual reactions of the patient.

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

SECTION 5: Fire-fighting measures

Suitable extinguishing media
Use measures suitable for extinguishing surrounding fire.

Specific hazards arising from the chemical
Material does not burn or will propose an explosion risk

Special protective actions for fire-fighters
Fire fighters should wear full protective clothing and self-contained breathing apparatus (SCBA) operated in positive pressure mode. Fight fire from safe location.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures
Wear protective clothing specified for normal operations (see Section 8)

Methods and materials for containment and cleaning up
Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container.

SECTION 7: Handling and storage

Precautions for safe handling
No specific measures

Conditions for safe storage, including any incompatibilities
Store in a cool, well ventilated area, out of direct sunlight. Keep containers closed when not in use. Store in orginal container.

SECTION 8: Exposure controls/personal protection

Appropriate engineering controls
Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, gas, etc.) below recommended exposure limits.f the engineering controls are not sufficient to maintain concentrations of vapours/mists below the exposure standards, suitable respiratory protection must be worn.

Individual protection measures, such as personal protective equipment (PPE)

Eye/face protection
The use of a face shield, chemical goggles or safety glasses with side shield protection as appropriate. Must comply with Australian Standards AS 1337 and be selected and used in accordance with AS 1336.

Skin protection
Clean impervious clothing should be worn. Clothing for protection against chemicals should comply with AS 3765 Clothing for Protection Against Hazardous Chemicals.

Hand Protection: Ensure hand protection complies with AS 2161, Occupational protective gloves - Selection, use and maintenance.

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.

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.

SECTION 9: Physical and chemical properties

Basic physical and chemical properties

Physical state	Liquid
Appearance	Dark brown liquid.
Color	No data available.
Odor	Mild characteristic odour (vineger and iodine).
Odor threshold	No data available.
Melting point/freezing point	No data available.
Boiling point or initial boiling point and boiling range	No data available.
Flammability	No data available.
Lower and upper explosion limit/flammability limit	No data available.
Flash point	No data available.
Explosive properties	No data available.
Auto-ignition temperature	No data available.
Decomposition temperature	No data available.
Oxidizing properties	No data available.
pH	No data available.
Kinematic viscosity	No data available.
Solubility	Completely miscible in water
Partition coefficient n-octanol/water (log value)	No data available.
Vapor pressure	No data available.
Evaporation rate	No data available.
Density and/or relative density	No data available.
Relative vapor density	No data available.
Particle characteristics	No data available.

Supplemental information regarding physical hazard classes
No data available.

Further safety characteristics (supplemental)
No data available.

SECTION 10: Stability and reactivity

Reactivity
Reacts with incompatible materials

Chemical stability
Stable under recommended storage conditions.

Possibility of hazardous reactions
Hazardous Polymerization: Will not occur.

Conditions to avoid
Avoid storing in direct sunlight and avoid extremes of temperature.

Incompatible materials
Strong reducing agents.

Acetic acid: Oxidizing agents, Soluble carbonates and phosphates, Hydroxides, Metals, Peroxides, permanganates, e.g. potassium permanganate, Amines, Alcohols, Nitric acid

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Potassium iodide: Strong reducing agents, Nickel, Strong acids, and its alloys, Steel (all types and surface treatments), Aluminum, Alkali metals, Brass, Magnesium, Zinc, cadmium, Copper

Hazardous decomposition products

Acetic acid: Hazardous decomposition products formed under fire conditions. - Carbon oxides
Other decomposition products - No data available
In the event of fire: see section 5

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity
Inhalation of vapour may cause irritation to the mucous membranes and respiratory tract.

Skin corrosion/irritation
Causes skin irritation.

Serious eye damage/irritation
Causes serious eye irritation.

Respiratory or skin sensitization
No data available.

Germ cell mutagenicity
No data available.

Carcinogenicity
No data available.

Reproductive toxicity
No data available.

Summary of evaluation of the CMR properties
No data available.

Specific target organ toxicity (STOT) - single exposure
No data available.

Specific target organ toxicity (STOT) - repeated exposure
May cause damage to thyroid through prolonged or repeated exposure

Aspiration hazard
No data available.

Additional information
Chronic Effects: Chronic exposure may cause insomnia, conjunctivitis, inflammation of the nasal mucous, bronchitis, tremor, rapid heart beat, diarrhea and weight loss.

SECTION 12: Ecological information

Toxicity
No data available.

Persistence and degradability
No data available.

Bioaccumulative potential
No data available.

Mobility in soil
No data available.

Results of PBT and vPvB assessment
No data available.

Endocrine disrupting properties
No data available.

Other adverse effects
No data available.

SECTION 13: Disposal considerations

Disposal methods

Product disposal
Waste material must be disposed of in accordance with the national and local regulations. Leave chemicals in original containers.

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

SECTION 14: Transport information

ADG (Road and Rail)
Not dangerous goods

IMDG
Not dangerous goods

IATA
Not dangerous goods

SECTION 15: Regulatory information

Safety, health and environmental regulations specific for the product in question

Australia SUSMP
Poison Schedule: NS

SECTION 16: Other information

Further information/disclaimer
ChemSupply Australia Pty Ltd does not warrant that this product is suitable for any use or purpose. The user must ascertain the suitability of the product before use or application intended purpose. Preliminary testing of the product before use or application is recommended. Any reliance or purported reliance upon ChemSupply Australia Pty Ltd with respect to any skill or judgement or advice in relation to the suitability of this product of any purpose is disclaimed. Except to the extent prohibited at law, any condition implied by any statute as to the merchantable quality of this product or fitness for any purpose is hereby excluded. This product is not sold by description. Where the provisions of Part V, Division 2 of the Trade Practices Act apply, the liability of ChemSupply Australia Pty Ltd is limited to the replacement of supply of equivalent goods or payment of the cost of replacing the goods or acquiring equivalent goods.

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Standard for the Uniform Scheduling of Medicines and Poisons, Commonwealth of Australia
National Road Transport Commission, 'Australian Code for the Transport of Dangerous Goods by Road and Rail 7th. Ed.'
Safe Work Australia, 'National Code of Practice fot the Preparation of Safety Data Sheets for Hazardous Chemicals', July 2020.
Safe Work Australia, 'National Guide for Classifying Hazardous Chemicals', July 2020.
Safe Work Australia, Workplace Exposure Standards for Airbourne Contaminants, December 2019
Safe Work Australia, Hazardous Chemical Information System (HCIS), hcis.safeworkaustralia.gov.au
IATA, Dangerous Goods Regulations (DGR)
IMO, International Maritime Dangerous Goods Code (IMDG)