

SAFETY DATA SHEET

Lugols Iodine Concentrate

According to Regulation (EC) No 1907/2006, Annex II, as amended.

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name Lugols Iodine Concentrate

Product number PL.8010, PL.8010/4, PL.8010/5

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

Identified uses Laboratory reagent.

Uses advised against No specific uses advised against are identified.

1.3. Details of the supplier of the safety data sheet

Supplier Pro-Lab Diagnostics
3 Bassendale Road
Wirral
Merseyside
CH62 3QL
Tel: 0151 353 1613
Fax: 0151 353 1614
mowen@pro-lab.com

1.4. Emergency telephone number

Emergency telephone +44 (0)151 353 1613 Monday to Friday 9.00 to 17.00
+44 (0)7714 429 646 outside the above hours

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical hazards Flam. Liq. 3 - H226

Health hazards Acute Tox. 4 - H332 Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 STOT SE 2 - H371

Environmental hazards Not Classified

Classification (67/548/EEC or 1999/45/EC) Xn; R20, R68/20/21/22. Xi; R36/38. R10

2.2. Label elements

Pictogram



Signal word

Warning

Hazard statements

H226 Flammable liquid and vapour.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.
H371 May cause damage to organs .

Lugols Iodine Concentrate

Precautionary statements	<p>P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.</p> <p>P264 Wash contaminated skin thoroughly after handling.</p> <p>P270 Do not eat, drink or smoke when using this product.</p> <p>P280 Wear protective clothing, gloves, eye and face protection.</p> <p>P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p> <p>P501 Dispose of contents/ container in accordance with national regulations.</p>
Contains	iodine, methanol
Supplementary precautionary statements	<p>P240 Ground/ bond container and receiving equipment.</p> <p>P241 Use explosion-proof electrical equipment.</p> <p>P242 Use only non-sparking tools.</p> <p>P243 Take precautionary measures against static discharge.</p> <p>P260 Do not breathe vapour/ spray.</p> <p>P271 Use only outdoors or in a well-ventilated area.</p> <p>P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.</p> <p>P312 Call a POISON CENTER/ doctor if you feel unwell.</p> <p>P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.</p> <p>P332+P313 If skin irritation occurs: Get medical advice/ attention.</p> <p>P362+P364 Take off contaminated clothing and wash it before reuse.</p> <p>P337+P313 If eye irritation persists: Get medical advice/ attention.</p> <p>P308+P311 IF exposed or concerned: Call a POISON CENTER or doctor.</p> <p>P370+P378 In case of fire: Use foam, carbon dioxide, dry powder or water fog to extinguish.</p> <p>P405 Store locked up.</p>

2.3. Other hazards

This product does not contain any substances classified as PBT or vPvB.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

ethanol	25 - <50%
CAS number: 64-17-5	EC number: 200-578-6
Substance with National workplace exposure limits.	
Classification	Classification (67/548/EEC or 1999/45/EC)
Flam. Liq. 2 - H225	F; R11
potassium iodide	10 - <25%
CAS number: 7681-11-0	EC number: 231-659-4
Classification	Classification (67/548/EEC or 1999/45/EC)
Acute Tox. 4 - H302	Xn; R22. Xi; R36/38
Skin Irrit. 2 - H315	
Eye Irrit. 2 - H319	

Lugols Iodine Concentrate

iodine		5 - <10%
CAS number: 7553-56-2	EC number: 231-442-4	
M factor (Acute) = 1		
Classification	Classification (67/548/EEC or 1999/45/EC)	
Acute Tox. 4 - H312	Xn; R20/21. N; R50	
Acute Tox. 4 - H332		
Aquatic Acute 1 - H400		
methanol		2.5 - <5%
CAS number: 67-56-1	EC number: 200-659-6	REACH registration number: 01-2119433307-44-XXXX
Classification	Classification (67/548/EEC or 1999/45/EC)	
Flam. Liq. 2 - H225	F; R11. T; R23/24/25, R39/23/24/25	
Acute Tox. 3 - H301		
Acute Tox. 3 - H311		
Acute Tox. 3 - H331		
STOT SE 1 - H370		

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information	Keep affected person away from heat, sparks and flames.
Inhalation	Immediate first aid is imperative. Loosen tight clothing such as collar, tie or belt. Maintain an open airway. Move affected person to fresh air at once. Place unconscious person on their side in the recovery position and ensure breathing can take place. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen.
Ingestion	Rinse mouth thoroughly with water. Do not induce vomiting unless under the direction of medical personnel. If in doubt, get medical attention promptly.
Skin contact	Rinse cautiously with water for several minutes. Remove contaminated clothing. Continue to rinse for at least 15 minutes and get medical attention. Wash contaminated clothing before reuse. Chemical burns must be treated by a physician.
Eye contact	Remove contact lenses, if present and easy to do. Continue rinsing. Rinse immediately with plenty of water. Get medical attention if symptoms are severe or persist after washing.

4.2. Most important symptoms and effects, both acute and delayed

Inhalation	Symptoms following overexposure may include the following: Coughing, chest tightness, feeling of chest pressure. Drowsiness, dizziness, disorientation, vertigo. May cause discomfort.
Ingestion	Burning sensation in mouth. Coughing. Gastrointestinal symptoms, including upset stomach.
Skin contact	A single exposure may cause the following adverse effects: Causes skin irritation. Prolonged contact may cause redness, irritation and dry skin.
Eye contact	Causes serious eye irritation. Conjunctivitis, irritation, tearing. Pain. Profuse watering of the eyes. Vapour or spray in the eyes may cause irritation and smarting.

4.3. Indication of any immediate medical attention and special treatment needed

Lugols Iodine Concentrate

Notes for the doctor The severity of the symptoms described will vary dependent on the concentration and the length of exposure.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog.

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

5.2. Special hazards arising from the substance or mixture

Specific hazards Flammable liquid and vapour. Vapours may be ignited by a spark, a hot surface or an ember.

5.3. Advice for firefighters

Protective actions during firefighting Fight fire from safe distance or protected location. Use water spray to reduce vapours. Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. If a leak or spill has not ignited, use water spray to disperse vapours and protect men stopping the leak.

Special protective equipment for firefighters Use air-supplied respirator, gloves and protective goggles. Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing. Use protective equipment appropriate for surrounding materials.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Follow precautions for safe handling described in this safety data sheet. No smoking, sparks, flames or other sources of ignition near spillage. Provide adequate ventilation.

6.2. Environmental precautions

Environmental precautions Avoid the spillage or runoff entering drains, sewers or watercourses.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up Take care as floors and other surfaces may become slippery. Contain spillage with sand, earth or other suitable non-combustible material. Absorb in vermiculite, dry sand or earth and place into containers. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

6.4. Reference to other sections

Reference to other sections For personal protection, see Section 8. For waste disposal, see Section 13. See Section 11 for additional information on health hazards. See Section 12 for additional information on ecological hazards.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions Avoid breathing vapours. Avoid contact with eyes and prolonged skin contact. Avoid the formation of mists. Ground/bond container and receiving equipment.

Advice on general occupational hygiene Do not eat, drink or smoke when using this product. Eye wash facilities and emergency shower must be available when handling this product. Good personal hygiene procedures should be implemented. Take off contaminated clothing and wash it before reuse. Wash promptly with soap and water if skin becomes contaminated.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions Keep at temperature not exceeding 25°C.

Lugols Iodine Concentrate

Storage class Flammable liquid storage.

7.3. Specific end use(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.2.

SECTION 8: Exposure Controls/personal protection

8.1. Control parameters

Occupational exposure limits

ethanol

Long-term exposure limit (8-hour TWA): WEL 1000 ppm 1920 mg/m³

iodine

Short-term exposure limit (15-minute): WEL 0.1 ppm 1.1 mg/m³

methanol

Long-term exposure limit (8-hour TWA): WEL 200 ppm 266 mg/m³

Short-term exposure limit (15-minute): WEL 250 ppm 333 mg/m³

Sk

WEL = Workplace Exposure Limit

Sk = Can be absorbed through the skin.

8.2. Exposure controls

Appropriate engineering controls

Avoid inhalation of vapours and spray/mists. Good general ventilation should be adequate to control worker exposure to airborne contaminants. In case of insufficient ventilation, wear suitable respiratory equipment.

Eye/face protection

Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. The following protection should be worn: Chemical splash goggles.

Hand protection

Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material. Frequent changes are recommended. The breakthrough time for any glove material may be different for different glove manufacturers.

Other skin and body protection

Wear anti-static protective clothing if there is a risk of ignition from static electricity.

Hygiene measures

Do not eat, drink or smoke when using this product. Eye wash facilities and emergency shower must be available when handling this product. Good personal hygiene procedures should be implemented.

Respiratory protection

If ventilation is inadequate, suitable respiratory protection must be worn. Seek advice from supervisor on the company's respiratory protection standards. Respiratory protection complying with an approved standard should be worn if a risk assessment indicates inhalation of contaminants is possible.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Appearance	Liquid.
Colour	Dark brown.
Odour	Alcoholic.
pH	Not relevant.
Melting point	Not relevant.

Lugols Iodine Concentrate

Initial boiling point and range	Not determined.
Flash point	> 26°C
Evaporation rate	Not determined.
Flammability (solid, gas)	Not determined.
Upper/lower flammability or explosive limits	Not determined.
Vapour pressure	Not determined.
Vapour density	Not relevant.
Relative density	Not determined.
Solubility(ies)	Soluble in water.
Partition coefficient	Not determined.
Auto-ignition temperature	Not determined.
Decomposition Temperature	Not determined.
Viscosity	Not determined.
Explosive properties	Not considered to be explosive.
Oxidising properties	Does not meet the criteria for classification as oxidising.

9.2. Other information

Other information None.

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity No test data specifically related to reactivity available for this product or its ingredients.

10.2. Chemical stability

Stability Stable at normal ambient temperatures and when used as recommended.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions Acids. Alkalis. Oxidising agents.

10.4. Conditions to avoid

Conditions to avoid Avoid heat, flames and other sources of ignition.

10.5. Incompatible materials

Materials to avoid Acids. Alkalis. Oxidising agents.

10.6. Hazardous decomposition products

Hazardous decomposition products Thermal decomposition or combustion products may include the following substances: Carbon dioxide (CO₂). Carbon monoxide (CO). Nitrous gases (NO_x). Hydrocarbons. Does not decompose when used and stored as recommended.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity - oral

Lugols Iodine Concentrate

Notes (oral LD₅₀) Based on available data the classification criteria are not met.

ATE oral (mg/kg) 3,210.01524757

Acute toxicity - dermal

Notes (dermal LD₅₀) Based on available data the classification criteria are not met.

ATE dermal (mg/kg) 5,150.48218001

Acute toxicity - inhalation

Notes (inhalation LC₅₀) Acute Tox. 4 - H332 Harmful if inhaled.

ATE inhalation (gases ppm) 16,487.0753106

ATE inhalation (vapours mg/l) 70.65889419

ATE inhalation (dusts/mists mg/l) 61.17333333

Skin corrosion/irritation

Animal data Skin Irrit. 2 - H315 Causes skin irritation.

Serious eye damage/irritation

Serious eye damage/irritation Eye Irrit. 2 - H319 Causes serious eye irritation.

Respiratory sensitisation

Respiratory sensitisation Based on available data the classification criteria are not met.

Skin sensitisation

Skin sensitisation Based on available data the classification criteria are not met.

Germ cell mutagenicity

Genotoxicity - in vitro Based on available data the classification criteria are not met.

Carcinogenicity

Carcinogenicity Based on available data the classification criteria are not met.

Reproductive toxicity

Reproductive toxicity - fertility Based on available data the classification criteria are not met.

Specific target organ toxicity - single exposure

STOT - single exposure STOT SE 2 - H371

Specific target organ toxicity - repeated exposure

STOT - repeated exposure Based on available data the classification criteria are not met.

Aspiration hazard

Aspiration hazard Not anticipated to present an aspiration hazard, based on chemical structure.

Toxicological information on ingredients.

ethanol

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 10,470.0

Species Rat

Notes (oral LD₅₀) REACH dossier information. Based on available data the classification criteria are not met.

Lugols Iodine Concentrate

ATE oral (mg/kg)	10,470.0
<u>Acute toxicity - inhalation</u>	
Acute toxicity inhalation (LC₅₀ vapours mg/l)	124.7
Species	Rat
Notes (inhalation LC₅₀)	REACH dossier information. Based on available data the classification criteria are not met.
ATE inhalation (vapours mg/l)	124.7
<u>Skin corrosion/irritation</u>	
Animal data	Dose: 0.2 ml, 24 hours, Rabbit Primary dermal irritation index: 0 / 8 REACH dossier information. Not irritating.
<u>Skin sensitisation</u>	
Skin sensitisation	Guinea pig maximization test (GPMT) - Mouse: Not sensitising. REACH dossier information. Read across data. Based on available data the classification criteria are not met.
<u>Germ cell mutagenicity</u>	
Genotoxicity - in vitro	Gene mutation: Negative. REACH dossier information. Based on available data the classification criteria are not met.
Genotoxicity - in vivo	Chromosome aberration: Negative. REACH dossier information. Based on available data the classification criteria are not met.
<u>Carcinogenicity</u>	
IARC carcinogenicity	IARC Group 1 Carcinogenic to humans.
<u>Reproductive toxicity</u>	
Reproductive toxicity - fertility	Two-generation study - NOAEL 15 %, Oral, Mouse P REACH dossier information.
Reproductive toxicity - development	Maternal toxicity: - NOAEL: 16000 ppm, Inhalation, Rat REACH dossier information.
<u>Specific target organ toxicity - repeated exposure</u>	
STOT - repeated exposure	LOAEL 4 mL/Kg, Oral, Rat REACH dossier information. Based on available data the classification criteria are not met.
<u>potassium iodide</u>	
<u>Acute toxicity - oral</u>	
Acute toxicity oral (LD₅₀ mg/kg)	1,000.0
Species	Mouse
Notes (oral LD₅₀)	Raw material suppliers' information.
ATE oral (mg/kg)	1,000.0
<u>Skin corrosion/irritation</u>	

Lugols Iodine Concentrate

Animal data Dose: 0.5 g, 24 hours, Rabbit REACH dossier information. Moderately irritating. Skin Irrit. 2 - H315 Causes skin irritation.

Serious eye damage/irritation

Serious eye damage/irritation REACH dossier information. Eye Irrit. 2 - H319 Causes serious eye irritation.

Skin sensitisation

Skin sensitisation Patch test - Human: Not sensitising. REACH dossier information.

Germ cell mutagenicity

Genotoxicity - in vitro Negative. REACH dossier information.

iodine

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ mg/kg) 1,425.0

Species Rabbit

Notes (dermal LD₅₀) REACH dossier information.

ATE dermal (mg/kg) 1,425.0

Acute toxicity - inhalation

Acute toxicity inhalation (LC₅₀ dust/mist mg/l) 4.588

Species Rat

Notes (inhalation LC₅₀) REACH dossier information.

ATE inhalation (dusts/mists mg/l) 4.588

Skin corrosion/irritation

Human skin model test Cell Viability (11%) 15 minutes REACH dossier information.

Skin sensitisation

Skin sensitisation Local Lymph Node Assay (LLNA) - Mouse: Not sensitising. REACH dossier information.

Reproductive toxicity

Reproductive toxicity - fertility Screening - NOAEL 10 mg/kg/day, Oral, Rat F1 REACH dossier information.

Reproductive toxicity - development Developmental toxicity: - NOAEL: 10 mg/kg/day, Oral, Rat REACH dossier information. No evidence of reproductive toxicity in animal studies.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure NOAEL 3 mg/l, Oral, Rat REACH dossier information.

methanol

Acute toxicity - oral

Notes (oral LD₅₀) International Programme on Chemical Safety (IPCS) (1997) Environmental Health Criteria 196: Methanol. Geneva, World Health Organization. Toxic if swallowed.

Lugols Iodine Concentrate

ATE oral (mg/kg)	300.0
<u>Acute toxicity - dermal</u>	
Notes (dermal LD₅₀)	Converted acute toxicity point estimate (cATpE) Toxic in contact with skin.
ATE dermal (mg/kg)	300.0
<u>Acute toxicity - inhalation</u>	
Notes (inhalation LC₅₀)	Converted acute toxicity point estimate (cATpE) Toxic if inhaled.
ATE inhalation (gases ppm)	700.0
ATE inhalation (vapours mg/l)	3.0
<u>Skin corrosion/irritation</u>	
Animal data	Dose: 2.5cm x 2.5cm, 20 hours, Rabbit Erythema/eschar score: No erythema (0). Oedema score: No oedema (0). REACH dossier information. Based on available data the classification criteria are not met.
<u>Serious eye damage/irritation</u>	
Serious eye damage/irritation	Dose: 0.05 ml, 24 hours, Rabbit REACH dossier information. Based on available data the classification criteria are not met.
<u>Skin sensitisation</u>	
Skin sensitisation	Guinea pig maximization test (GPMT) - Guinea pig: Not sensitising. REACH dossier information. Based on available data the classification criteria are not met.
<u>Specific target organ toxicity - single exposure</u>	
STOT - single exposure	STOT SE 1 - H370
Target organs	Eyes Central nervous system

SECTION 12: Ecological Information

12.1. Toxicity

Toxicity Based on available data the classification criteria are not met. However, large or frequent spills may have hazardous effects on the environment.

Ecological information on ingredients.

ethanol

Acute toxicity - fish	LC ₅₀ , 96 hours: 14200 mg/l, Pimephales promelas (Fat-head Minnow) REACH dossier information.
Acute toxicity - aquatic invertebrates	LC ₅₀ , 48 hours: 5012 mg/l, Ceriodaphnia dubia REACH dossier information.
Acute toxicity - aquatic plants	EC ₅₀ , 72 hours: 11.5 mg/l, Chlorella vulgaris REACH dossier information.
Chronic toxicity - aquatic invertebrates	NOEC, 9 days: 9.6 mg/l, Daphnia magna REACH dossier information.

potassium iodide

Lugols Iodine Concentrate

Acute toxicity - fish	LC ₀ , 96 hours: 100 mg/l, Brachydanio rerio (Zebra Fish) NOEC, 7 days: 100 mg/l, Brachydanio rerio (Zebra Fish) REACH dossier information.
Acute toxicity - aquatic invertebrates	LC ₅₀ , 24 hours: 226 mg/l, dreissena polymorpha (zebra mussel) REACH dossier information.
Acute toxicity - aquatic plants	MIC ₁₀₀ , 10 days: 356.8 mg/l, Dunaliella salina REACH dossier information.
Acute toxicity - microorganisms	MIC ₁₀₀ , 24 hours: 358.3 mg/l, Staphylococcus auerus REACH dossier information.
Chronic toxicity - fish early life stage	LC ₁₀₀ , 22 days: 166002.8 mg/l, Onchorhynchus mykiss (Rainbow trout) REACH dossier information.

iodine

Toxicity	Aquatic Acute 1 - H400 Very toxic to aquatic life.
<u>Acute aquatic toxicity</u>	
LE(C)₅₀	0.1 < L(E)C ₅₀ ≤ 1
M factor (Acute)	1
Acute toxicity - fish	LC ₅₀ , 96 hours: 1.67 mg/l, Onchorhynchus mykiss (Rainbow trout) REACH dossier information.
Acute toxicity - aquatic invertebrates	LC ₅₀ , 48 hours: 0.55 - 0.59 mg/l, Daphnia magna REACH dossier information.
Acute toxicity - aquatic plants	NOEC, 72 hours: 0.025 mg/l, Desmodesmus subspicatus EC ₅₀ , 72 hours: 0.13 mg/l, Desmodesmus subspicatus REACH dossier information.
Acute toxicity - microorganisms	EC ₅₀ , 3 hours: 280 mg/l, Activated sludge EC ₁₀ , 3 hours: 110 mg/l, Activated sludge REACH dossier information.

methanol

Acute toxicity - fish	LC ₅₀ , 96 hours: 15400 mg/l, Lepomis macrochirus (Bluegill) EC ₅₀ , 96 hours: 12700 mg/l, Lepomis macrochirus (Bluegill) REACH dossier information.
Acute toxicity - aquatic invertebrates	EC ₅₀ , 96 hours: 18260 mg/l, Daphnia magna REACH dossier information.
Acute toxicity - aquatic plants	EC ₅₀ , 96 hours: ~ 22000 mg/l, Pseudokirchneriella subcapitata REACH dossier information.
Acute toxicity - microorganisms	IC ₅₀ , 3 hours: >1000 mg/l, Activated sludge REACH dossier information.

12.2. Persistence and degradability

Persistence and degradability There are no data on the degradability of this product. Volatile substances are degraded in the atmosphere within a few days.

Ecological information on ingredients.

Lugols Iodine Concentrate

ethanol

Biodegradation	Water - Degradation (74%): 10 days REACH dossier information. The substance is readily biodegradable.
Chemical oxygen demand	1.99 g O ₂ /g substance REACH dossier information.

potassium iodide

Biodegradation	Water - Half-life : 720 hours Water - Half-life : 360 hours Water - Degradation (50%): 360 hours Calculation method. REACH dossier information. The substance is readily biodegradable.
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iodine

Phototransformation	Water - DT ₅₀ : 0.14 minutes REACH dossier information.
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methanol

Phototransformation	Water - DT ₅₀ : 17.2 days REACH dossier information.
Biodegradation	Water - Degradation (95%): 20 days Water - Degradation (91%): 15 days Water - Degradation (88%): 10 days Water - Degradation (76%): 5 days REACH dossier information. The substance is readily biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative potential Not determined.

Partition coefficient Not determined.

Ecological information on ingredients.

ethanol

Partition coefficient log Pow: - 0.35 REACH dossier information.

potassium iodide

Bioaccumulative potential BCF: 2.268, Fish Calculation method. REACH dossier information.

Partition coefficient Pow: 0.11 REACH dossier information.

iodine

Partition coefficient log Pow: 2.49 REACH dossier information.

methanol

Partition coefficient log Pow: -0.77 REACH dossier information.

Lugols Iodine Concentrate

12.4. Mobility in soil

Mobility

The product contains organic solvents which will evaporate easily from all surfaces. The product contains substances which are water-soluble and may spread in water systems.

Ecological information on ingredients.

ethanol

Surface tension 24.5 mN/m @ 20°C/68°F REACH dossier information.

potassium iodide

Adsorption/desorption coefficient Water - Koc: 13.22 @ 25°C Calculation method. REACH dossier information.

Henry's law constant 3.717E-18 Pa m³/mol @ 25°C Calculation method. REACH dossier information.

iodine

Adsorption/desorption coefficient Water - Kd: 0.13 - 7.7 @ 20°C REACH dossier information.

Henry's law constant 0.02961 - 0.03257 Pa m³/mol @ 20°C REACH dossier information.

methanol

Mobility Mobile.

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment This product does not contain any substances classified as PBT or vPvB.

12.6. Other adverse effects

Other adverse effects Not relevant.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information Reuse or recycle products wherever possible. Dispose of surplus products and those that cannot be recycled via a licensed waste disposal contractor. Residues and empty containers should be taken care of as hazardous waste according to local and national provisions.

Disposal methods Absorb in vermiculite, dry sand or earth and place into containers. Place waste in labelled, sealed containers. Dispose of contents/container in accordance with national regulations.

SECTION 14: Transport information

14.1. UN number

UN No. (ADR/RID) 1993

UN No. (IMDG) 1993

UN No. (ICAO) 1993

UN No. (ADN) 1993

14.2. UN proper shipping name

Lugols Iodine Concentrate

Proper shipping name (ADR/RID) FLAMMABLE LIQUID, N.O.S. (ethanol)

Proper shipping name (IMDG) FLAMMABLE LIQUID, N.O.S. (ethanol)

Proper shipping name (ICAO) FLAMMABLE LIQUID, N.O.S. (ethanol)

Proper shipping name (ADN) FLAMMABLE LIQUID, N.O.S. (ethanol)

14.3. Transport hazard class(es)

ADR/RID class 3

ADR/RID classification code F1

ADR/RID label 3

IMDG class 3

ICAO class/division 3

ADN class 3

Transport labels



14.4. Packing group

ADR/RID packing group III

IMDG packing group III

ADN packing group III

ICAO packing group III

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant

No.

14.6. Special precautions for user

EmS F-E, S-E

ADR transport category 3

Emergency Action Code •3Y

Hazard Identification Number (ADR/RID) 30

Tunnel restriction code (D/E)

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

Transport in bulk according to Not relevant.

Annex II of MARPOL 73/78 and the IBC Code

SECTION 15: Regulatory information

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

National regulations EH40/2005 Workplace exposure limits.

Lugols Iodine Concentrate

EU legislation

Council Directive of 20 May 1975 on the approximation of the laws of the Member States relating to aerosol dispensers (75/324/EEC).

Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended).

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended).

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information

Classification procedures according to Regulation (EC) 1272/2008 Flam. Liq. 3 - H226: Expert judgement. Acute Tox. 4 - H332, Skin Irrit. 2 - H315, Eye Irrit. 2 - H319, STOT SE 2 - H371: Calculation method.

Revision comments Classification according to EC 1272/2008 (CLP).

Revision date 27/09/2016

Revision 8

Supersedes date 09/04/2015

SDS number 808

Risk phrases in full R10 Flammable.
R11 Highly flammable.
R20 Harmful by inhalation.
R20/21 Harmful by inhalation and in contact with skin.
R22 Harmful if swallowed.
R23/24/25 Toxic by inhalation, in contact with skin and if swallowed.
R36/38 Irritating to eyes and skin.
R39/23/24/25 Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.
R50 Very toxic to aquatic organisms.
R68/20/21/22 Harmful: possible risk of irreversible effects through inhalation, in contact with skin and if swallowed.

Hazard statements in full H225 Highly flammable liquid and vapour.
H226 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 (Eyes, Central nervous system).
H371 May cause damage to organs .
H400 Very toxic to aquatic life.

The information in this safety data sheet was obtained from current and reliable sources. However, the data is provided without warranty, expressed or implied, regarding its correctness or accuracy. Since the conditions for use, handling, storage and disposal of this product are beyond Pro-Lab Diagnostics control, it is the users responsibility to perform thorough testing of this product when used in combination with any other product. It is suggested that users familiarise themselves with this safety data sheet before handling the product.