

# SAFETY DATA SHEET

## Iodine Acetone (Liqui Iodi Fortis)

According to the REACH etc. (Amendment etc.) (EU Exit) Regulations 2019 No. 758, as amended.

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

#### 1.1. Product identifier

**Product name** Iodine Acetone (Liqui Iodi Fortis)  
**Product number** PL.7056, PL.7057, PL.7058

#### 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 (SI 2019 No. 720)

**Physical hazards** Flam. Liq. 2 - H225  
**Health hazards** Eye Irrit. 2 - H319 STOT SE 3 - H336  
**Environmental hazards** Not Classified

**Human health** May irritate eyes. Vapours may cause drowsiness and dizziness.  
**Physicochemical** The product is highly flammable.

#### 2.2. Label elements

##### Hazard pictograms



**Signal word** Danger

**Hazard statements** H225 Highly flammable liquid and vapour.  
H319 Causes serious eye irritation.  
H336 May cause drowsiness or dizziness.

## Iodine Acetone (Liqui Iodi Fortis)

<b>Precautionary statements</b>	<p>P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.</p> <p>P280 Wear protective clothing, gloves, eye and face protection.</p> <p>P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.</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>P312 Call a POISON CENTRE/doctor if you feel unwell.</p> <p>P501 Dispose of contents/ container in accordance with national regulations.</p>
<b>Contains</b>	acetone
<b>Supplementary precautionary statements</b>	<p>P233 Keep container tightly closed.</p> <p>P240 Ground and bond container and receiving equipment.</p> <p>P241 Use explosion-proof electrical equipment.</p> <p>P242 Use non-sparking tools.</p> <p>P243 Take action to prevent static discharges.</p> <p>P261 Avoid breathing vapour/ spray.</p> <p>P264 Wash contaminated skin thoroughly after handling.</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>P337+P313 If eye irritation persists: Get medical advice/ attention.</p> <p>P370+P378 In case of fire: Use foam, carbon dioxide, dry powder or water fog to extinguish.</p> <p>P403+P235 Store in a well-ventilated place. Keep cool.</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

<b>acetone</b>	<b>50 - 100%</b>
CAS number: 67-64-1	EC number: 200-662-2
<b>Classification</b> Flam. Liq. 2 - H225 Eye Irrit. 2 - H319 STOT SE 3 - H336	
<b>ethanol</b>	<b>2.5 - &lt;5%</b>
CAS number: 64-17-5	EC number: 200-578-6
Substance with National workplace exposure limits.	
<b>Classification</b> Flam. Liq. 2 - H225 Eye Irrit. 2 - H319	

## Iodine Acetone (Liqui Iodi Fortis)

<b>iodine</b>		<b>0.25 - &lt;0.5%</b>
CAS number: 7553-56-2	EC number: 231-442-4	
M factor (Acute) = 1		
<b>Classification</b>		
Acute Tox. 4 - H302		
Acute Tox. 4 - H312		
Acute Tox. 4 - H332		
Skin Irrit. 2 - H315		
Eye Irrit. 2 - H319		
STOT SE 3 - H335		
STOT RE 1 - H372		
Aquatic Acute 1 - H400		
<b>methanol</b>		<b>0.025 - &lt;0.25%</b>
CAS number: 67-56-1	EC number: 200-659-6	
<b>Classification</b>		
Flam. Liq. 2 - H225		
Acute Tox. 3 - H301		
Acute Tox. 3 - H311		
Acute Tox. 3 - H331		
STOT SE 1 - H370		

The full text for all hazard statements is displayed in Section 16.

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

<b>General information</b>	Keep affected person away from heat, sparks and flames.
<b>Inhalation</b>	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.
<b>Ingestion</b>	Rinse mouth thoroughly with water. Do not induce vomiting unless under the direction of medical personnel. If in doubt, get medical attention promptly.
<b>Skin contact</b>	Rinse cautiously with water for several minutes. Remove contaminated clothing. Wash contaminated clothing before reuse.
<b>Eye contact</b>	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

<b>Inhalation</b>	Symptoms following overexposure may include the following: Coughing, chest tightness, feeling of chest pressure. Drowsiness, dizziness, disorientation, vertigo. May cause discomfort.
<b>Ingestion</b>	May cause discomfort if swallowed.
<b>Skin contact</b>	Prolonged contact may cause redness, irritation and dry skin.
<b>Eye contact</b>	Causes serious eye irritation. Pain. Profuse watering of the eyes. Prolonged contact may cause redness and/or tearing.

## Iodine Acetone (Liqui Iodi Fortis)

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

**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

## Iodine Acetone (Liqui Iodi Fortis)

**Storage precautions** Keep at temperature not exceeding 25°C.

**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

##### acetone

Long-term exposure limit (8-hour TWA): WEL 500 ppm 1210 mg/m<sup>3</sup>

Short-term exposure limit (15-minute): WEL 1500 ppm 3620 mg/m<sup>3</sup>

##### ethanol

Long-term exposure limit (8-hour TWA): WEL 1000 ppm 1920 mg/m<sup>3</sup>

##### iodine

Short-term exposure limit (15-minute): WEL 0.1 ppm 1.1 mg/m<sup>3</sup>

##### methanol

Long-term exposure limit (8-hour TWA): WEL 200 ppm 266 mg/m<sup>3</sup>

Short-term exposure limit (15-minute): WEL 250 ppm 333 mg/m<sup>3</sup>

Sk

WEL = Workplace Exposure Limit.

Sk = Can be absorbed through the skin.

#### acetone (CAS: 67-64-1)

**DNEL** Workers - Inhalation; Long term systemic effects: 1210 mg/m<sup>3</sup>  
 Workers - Inhalation; Short term local effects: 2420 mg/m<sup>3</sup>  
 Workers - Dermal; Long term systemic effects: 186 mg/kg/day  
 General population - Inhalation; Long term systemic effects: 200 mg/m<sup>3</sup>  
 General population - Dermal; Long term systemic effects: 62 mg/kg/day  
 General population - Oral; Long term systemic effects: 62 mg/kg/day

**PNEC** Fresh water; 10.6 mg/l  
 Fresh water, Intermittent release; 21 mg/l  
 marine water; 1.06 mg/l  
 STP; 100 mg/l  
 Sediment (Freshwater); 30.4 mg/kg  
 Sediment (Marinewater); 3.04 mg/kg  
 Soil; 29.5 mg/kg

#### iodine (CAS: 7553-56-2)

**DNEL** Workers - Inhalation; Long term systemic effects: 0.07 mg/m<sup>3</sup>  
 Workers - Dermal; Long term systemic effects: 0.01 mg/kg/day

**PNEC** - Fresh water; 18.13 µg/L  
 - marine water; 60.01 µg/L  
 - STP; 11 mg/l  
 - Sediment (Freshwater); 3.99 mg/kg  
 - Sediment (Marinewater); 20.22 mg/kg  
 - Soil; 5.95 mg/kg

## Iodine Acetone (Liqui Iodi Fortis)

### methanol (CAS: 67-56-1)

<b>DNEL</b>	Workers - Inhalation; Long term systemic effects: 260 mg/m <sup>3</sup>
	Workers - Inhalation; Short term systemic effects: 260 mg/m <sup>3</sup>
	Workers - Inhalation; Long term local effects: 260 mg/m <sup>3</sup>
	Workers - Inhalation; Short term local effects: 260 mg/m <sup>3</sup>
	Workers - Dermal; Long term systemic effects: 40 mg/kg/day
	Workers - Dermal; Short term systemic effects: 40 mg/kg/day
	General population - Inhalation; Long term systemic effects: 50 mg/m <sup>3</sup>
	General population - Inhalation; Short term systemic effects: 50 mg/m <sup>3</sup>
	General population - Inhalation; Long term local effects: 50 mg/m <sup>3</sup>
	General population - Inhalation; Short term local effects: 50 mg/m <sup>3</sup>
	General population - Dermal; Long term systemic effects: 8 mg/kg/day
	General population - Dermal; Short term systemic effects: 8 mg/kg/day
	General population - Oral; Long term systemic effects: 8 mg/kg/day
	General population - Oral; Short term systemic effects: 8 mg/kg/day
<b>PNEC</b>	- Fresh water; 20.8 mg/l
	- Fresh water, Intermittent release; 1540 mg/l
	- marine water; 2.08 mg/l
	- STP; 100 mg/l
	- Sediment (Freshwater); 77 mg/kg
	- Sediment (Marinewater); 7.7 mg/kg
- Soil; 100 mg/kg	

### 8.2. Exposure controls

<b>Appropriate engineering controls</b>	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.
<b>Eye/face protection</b>	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.
<b>Hand protection</b>	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.
<b>Other skin and body protection</b>	Wear anti-static protective clothing if there is a risk of ignition from static electricity.
<b>Hygiene measures</b>	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.
<b>Respiratory protection</b>	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

<b>Appearance</b>	Liquid.
<b>Colour</b>	Dark brown.
<b>Odour</b>	Acetone.

## Iodine Acetone (Liqui Iodi Fortis)

<b>pH</b>	Not relevant.
<b>Melting point</b>	Not relevant.
<b>Initial boiling point and range</b>	~ 56°C @ 1013 hPa
<b>Flash point</b>	~ -17°C
<b>Evaporation rate</b>	Not determined.
<b>Flammability (solid, gas)</b>	Not determined.
<b>Upper/lower flammability or explosive limits</b>	Not determined.
<b>Vapour pressure</b>	Not determined.
<b>Vapour density</b>	Not relevant.
<b>Relative density</b>	Not determined.
<b>Solubility(ies)</b>	Soluble in water.
<b>Partition coefficient</b>	Not determined.
<b>Auto-ignition temperature</b>	Not determined.
<b>Decomposition Temperature</b>	Not determined.
<b>Viscosity</b>	Not determined.
<b>Explosive properties</b>	Not considered to be explosive.
<b>Oxidising properties</b>	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 (CO<sub>2</sub>). Carbon monoxide (CO). Nitrous gases (NO<sub>x</sub>). Hydrocarbons. Does not decompose when used and stored as recommended.

## SECTION 11: Toxicological information

## Iodine Acetone (Liqui Iodi Fortis)

### 11.1. Information on toxicological effects

#### Acute toxicity - oral

**Notes (oral LD<sub>50</sub>)** Based on available data the classification criteria are not met.

**ATE oral (mg/kg)** 214,290.0

#### Acute toxicity - dermal

**Notes (dermal LD<sub>50</sub>)** Based on available data the classification criteria are not met.

**ATE dermal (mg/kg)** 214,290.0

#### Acute toxicity - inhalation

**Notes (inhalation LC<sub>50</sub>)** Based on available data the classification criteria are not met.

**ATE inhalation (gases ppm)** 500,010.0

**ATE inhalation (vapours mg/l)** 2,142.9

#### Skin corrosion/irritation

**Animal data** Based on available data the classification criteria are not met.

#### 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 3 - H335 May cause drowsiness or dizziness.

#### 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.

#### **Inhalation**

Symptoms following overexposure may include the following: Pain or irritation. Irritation of nose, throat and airway. Coughing. Wheezing/breathing difficulties.

#### **Ingestion**

May cause discomfort if swallowed.

#### **Skin contact**

No specific symptoms known. Prolonged and frequent contact may cause redness and irritation.

#### **Eye contact**

Causes eye irritation.

#### **Acute and chronic health hazards**

No specific long-term effects known.



## Iodine Acetone (Liqui Iodi Fortis)

Route of exposure                    Inhalation Ingestion Dermal

### Toxicological information on ingredients.

#### acetone

##### Acute toxicity - oral

Acute toxicity oral (LD<sub>50</sub>  
mg/kg)                    5,800.0

Species                    Rat

Notes (oral LD<sub>50</sub>)                    REACH dossier information. Based on available data the classification criteria are not met.

ATE oral (mg/kg)                    5,800.0

##### Acute toxicity - dermal

Acute toxicity dermal (LD<sub>50</sub>  
mg/kg)                    7,427.0

Species                    Rabbit

Notes (dermal LD<sub>50</sub>)                    REACH dossier information. Based on available data the classification criteria are not met.

ATE dermal (mg/kg)                    7,427.0

##### Acute toxicity - inhalation

Acute toxicity inhalation  
(LC<sub>50</sub> gases ppmV)                    54,000.0

Species                    Rat

Acute toxicity inhalation  
(LC<sub>50</sub> vapours mg/l)                    128.0

Species                    Rat

Notes (inhalation LC<sub>50</sub>)                    REACH dossier information. Based on available data the classification criteria are not met.

ATE inhalation (gases  
ppm)                    54,000.0

ATE inhalation (vapours  
mg/l)                    128.0

##### Skin sensitisation

Skin sensitisation                    Guinea pig maximization test (GPMT) - Guinea pig: Not sensitising. REACH dossier information. Based on available data the classification criteria are not met.

##### Germ cell mutagenicity

Genotoxicity - in vitro                    Gene mutation: Negative. REACH dossier information.

##### Carcinogenicity

Carcinogenicity                    NOEL 0.1 ml, Dermal, Mouse REACH dossier information. Based on available data the classification criteria are not met.

##### Reproductive toxicity

## Iodine Acetone (Liqui Iodi Fortis)

**Reproductive toxicity - development** Maternal toxicity: - NOAEC: 2200 ppm, Inhalation, Rat

### Specific target organ toxicity - single exposure

**STOT - single exposure** STOT SE 3 - H336 Vapours may cause drowsiness and dizziness.

**Target organs** Central nervous system

### Specific target organ toxicity - repeated exposure

**STOT - repeated exposure** NOAEL 20000 ppm, Oral, Mouse REACH dossier information. Not classified as a specific target organ toxicant after repeated exposure.

### ethanol

#### Acute toxicity - oral

**Acute toxicity oral (LD<sub>50</sub> mg/kg)** 10,470.0

**Species** Rat

**Notes (oral LD<sub>50</sub>)** REACH dossier information. Based on available data the classification criteria are not met.

**ATE oral (mg/kg)** 10,470.0

#### Acute toxicity - inhalation

**Acute toxicity inhalation (LC<sub>50</sub> vapours mg/l)** 124.7

**Species** Rat

**Notes (inhalation LC<sub>50</sub>)** REACH dossier information. Based on available data the classification criteria are not met.

**ATE inhalation (vapours mg/l)** 124.7

#### Skin corrosion/irritation

**Animal data** Dose: 0.2 ml, 24 hours, Rabbit Primary dermal irritation index: 0 / 8 REACH dossier information. Not irritating.

#### Serious eye damage/irritation

**Serious eye damage/irritation** Dose: 0.1 mL, 21 days, Rabbit Causes eye irritation. REACH dossier information.

#### Respiratory sensitisation

**Respiratory sensitisation** Rat: Not sensitising. REACH dossier information. Based on available data the classification criteria are not met.

#### Skin sensitisation

**Skin sensitisation** Guinea pig maximization test (GPMT) - Guinea pig: Not sensitising. REACH dossier information. Read across data. Based on available data the classification criteria are not met.

#### Germ cell mutagenicity

**Genotoxicity - in vitro** Gene mutation: Negative. REACH dossier information. Based on available data the classification criteria are not met.

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**Genotoxicity - in vivo** Chromosome aberration: Negative. REACH dossier information. Based on available data the classification criteria are not met.

### Carcinogenicity

**IARC carcinogenicity** IARC Group 1 Carcinogenic to humans.

### Reproductive toxicity

**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.

### Specific target organ toxicity - repeated exposure

**STOT - repeated exposure** LOAEL 4 mL/Kg, Oral, Rat REACH dossier information. Based on available data the classification criteria are not met.

### iodine

#### Acute toxicity - oral

**Acute toxicity oral (LD<sub>50</sub> mg/kg)** 315.0

**Species** Rat

**Notes (oral LD<sub>50</sub>)** Supplier's information. Based on available data the classification criteria are not met.

**ATE oral (mg/kg)** 315.0

#### Acute toxicity - dermal

**Acute toxicity dermal (LD<sub>50</sub> mg/kg)** 1,425.0

**Species** Rabbit

**Notes (dermal LD<sub>50</sub>)** REACH dossier information.

**ATE dermal (mg/kg)** 1,425.0

#### Acute toxicity - inhalation

**Acute toxicity inhalation (LC<sub>50</sub> dust/mist mg/l)** 4.588

**Species** Rat

**Notes (inhalation LC<sub>50</sub>)** REACH dossier information.

**ATE inhalation (dusts/mists mg/l)** 4.588

#### Skin corrosion/irritation

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

#### Serious eye damage/irritation

**Serious eye damage/irritation** Irritating to eyes.

#### Skin sensitisation

## Iodine Acetone (Liqui Iodi Fortis)

**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 - single exposure

**STOT - single exposure** May cause respiratory irritation.

### Specific target organ toxicity - repeated exposure

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

**Target organs** Thymus

### methanol

### Acute toxicity - oral

**Notes (oral LD<sub>50</sub>)** International Programme on Chemical Safety (IPCS) (1997) Environmental Health Criteria 196: Methanol. Geneva, World Health Organization. Toxic if swallowed.

**ATE oral (mg/kg)** 100.0

### Acute toxicity - dermal

**Notes (dermal LD<sub>50</sub>)** Converted acute toxicity point estimate (cATpE) Toxic in contact with skin.

### Acute toxicity - inhalation

**Notes (inhalation LC<sub>50</sub>)** Converted acute toxicity point estimate (cATpE) Toxic if inhaled.

**ATE inhalation (gases ppm)** 700.0

**ATE inhalation (vapours mg/l)** 3.0

### Skin corrosion/irritation

**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.

### Serious eye damage/irritation

**Serious eye damage/irritation** Dose: 0.05 ml, 24 hours, Rabbit REACH dossier information. Based on available data the classification criteria are not met.

### Skin sensitisation

**Skin sensitisation** Guinea pig maximization test (GPMT) - Guinea pig: Not sensitising. REACH dossier information. Based on available data the classification criteria are not met.

### Germ cell mutagenicity

**Genotoxicity - in vitro** Bacterial reverse mutation test: 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.

## Iodine Acetone (Liqui Iodi Fortis)

### Specific target organ toxicity - single exposure

**STOT - single exposure** STOT SE 1 - H370

**Target organs** Eyes Central nervous system

### Specific target organ toxicity - repeated exposure

**STOT - repeated exposure** LOAEL 2340 mg/kg/day, Oral, Monkey REACH dossier information. Based on available data the classification criteria are not met.

## 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.

#### acetone

##### Acute aquatic toxicity

**Acute toxicity - fish** LC<sub>50</sub>, 96 hours: 6210 mg/l, Pimephales promelas (Fat-head Minnow)  
REACH dossier information.

**Acute toxicity - aquatic invertebrates** LC<sub>50</sub>, 48 hours: 8800 mg/l, Daphnia pulex  
REACH dossier information.

**Acute toxicity - aquatic plants** NOEC, 8 days: 530 mg/l, Microcystis aeruginosa  
REACH dossier information.

**Acute toxicity - microorganisms** EC<sub>12</sub>, 30 minutes: 1000 mg/l, Activated sludge  
REACH dossier information.

##### Chronic aquatic toxicity

**Chronic toxicity - aquatic invertebrates** NOEC, 28 days: 1106 - 2212 mg/l, Daphnia magna  
LOEC, 28 days: 2212 mg/l, Daphnia magna  
REACH dossier information.

#### ethanol

##### Acute aquatic toxicity

**Acute toxicity - fish** LC<sub>50</sub>, 96 hours: 14200 mg/l, Pimephales promelas (Fat-head Minnow)  
REACH dossier information.

**Acute toxicity - aquatic invertebrates** LC<sub>50</sub>, 48 hours: 5012 mg/l, Ceriodaphnia dubia  
REACH dossier information.

**Acute toxicity - aquatic plants** EC<sub>50</sub>, 72 hours: 275 mg/l, Chlorella vulgaris  
REACH dossier information.

##### Chronic aquatic toxicity

**Chronic toxicity - fish early life stage** NOEC, 120 hours: 250 mg/l, Brachydanio rerio (Zebra Fish)

**Chronic toxicity - aquatic invertebrates** NOEC, 9 days: 9.6 mg/l, Daphnia magna  
REACH dossier information.

#### iodine

## Iodine Acetone (Liqui Iodi Fortis)

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

### methanol

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

#### acetone

<b>Persistence and degradability</b>	The product is readily biodegradable.
<b>Phototransformation</b>	Water - DT <sub>50</sub> : 10 days REACH dossier information.
<b>Biodegradation</b>	Water - Degradation (90.9%): 28 days REACH dossier information.

#### ethanol

<b>Biodegradation</b>	Water - Degradation (74%): 10 days REACH dossier information. The substance is readily biodegradable.
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## Iodine Acetone (Liqui Iodi Fortis)

**Chemical oxygen demand** 1.99 g O<sub>2</sub>/g substance REACH dossier information.

### iodine

**Phototransformation** Water - DT<sub>50</sub> : 0.14 minutes  
REACH dossier information.

**Stability (hydrolysis)** pH5 - Half-life : ~ 0.005 minutes @ 20°C

### methanol

**Phototransformation** Water - DT<sub>50</sub> : 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.

#### acetone

**Partition coefficient** log Pow: -0.24 REACH dossier information.

#### ethanol

**Partition coefficient** log Pow: - 0.35 REACH dossier information.

#### iodine

**Partition coefficient** log Pow: 2.49 REACH dossier information.

#### methanol

**Partition coefficient** log Pow: -0.77 REACH dossier information.

### 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.

#### acetone

**Mobility** The product is soluble in water.

**Henry's law constant** 2.929 Pa m<sup>3</sup>/mol @ 25°C REACH dossier information.

**Surface tension** 23700 mN/m @ 20°C REACH dossier information.

#### ethanol

## Iodine Acetone (Liqui Iodi Fortis)

**Surface tension** 24.5 mN/m @ 20°C/68°F 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 m<sup>3</sup>/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.

### Ecological information on ingredients.

### ethanol

**Results of PBT and vPvB assessment** This substance is not classified as PBT or vPvB according to current UK criteria.

### iodine

**Results of PBT and vPvB assessment** Substance is inorganic.

### methanol

**Results of PBT and vPvB assessment** This substance is not classified as PBT or vPvB according to current UK criteria.

### 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



## Iodine Acetone (Liqui Iodi Fortis)

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

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

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

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

### 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** II

**IMDG packing group** II

**ICAO packing group** II

**ADN packing group** II

### 14.5. Environmental hazards

**Environmentally hazardous substance/marine pollutant**

No.

### 14.6. Special precautions for user

**EmS** F-E, S-E

**ADR transport category** 2

**Emergency Action Code** •3YE

**Hazard Identification Number (ADR/RID)** 33

**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

## Iodine Acetone (Liqui Iodi Fortis)

<b>National regulations</b>	EH40/2005 Workplace exposure limits. The REACH etc. (Amendment etc.) (EU Exit) Regulations 2019 No. 758, as amended. The Chemicals (Health and Safety) and Genetically Modified Organisms (Contained Use) (Amendment etc.) (EU Exit) Regulations 2019 No. 720, as amended.
<b>EU legislation</b>	Council Directive of 20 May 1975 on the approximation of the laws of the Member States relating to aerosol dispensers (75/324/EEC).

### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

### SECTION 16: Other information

<b>Abbreviations and acronyms used in the safety data sheet</b>	ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road. ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways. ATE: Acute Toxicity Estimate. BCF: Bioconcentration Factor. DNEL: Derived No Effect Level. EC <sub>50</sub> : 50% of maximal Effective Concentration. IATA: International Air Transport Association. ICAO: Technical Instructions for the Safe Transport of Dangerous Goods by Air. IMDG: International Maritime Dangerous Goods. LC50: Lethal Concentration to 50 % of a test population. LD50: Lethal Dose to 50% of a test population (Median Lethal Dose). NOAEL: No Observed Adverse Effect Level. NOEC: No Observed Effect Concentration. PNEC: Predicted No Effect Concentration. RID: European Agreement concerning the International Carriage of Dangerous Goods by Rail.
<b>Classification abbreviations and acronyms</b>	Flam. Liq. = Flammable liquid Eye Irrit. = Eye irritation STOT SE = Specific target organ toxicity-single exposure
<b>Classification procedures according to SI 2019 No. 720</b>	Flam. Liq. 2 - H225: Expert judgement. Eye Irrit. 2 - H319, STOT SE 3 - H336: Calculation method.
<b>Revision comments</b>	Revised regulations.
<b>Revision date</b>	26/09/2022
<b>Revision</b>	8
<b>Supersedes date</b>	01/10/2017
<b>SDS number</b>	800

## Iodine Acetone (Liqui Iodi Fortis)

### Hazard statements in full

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.  
H335 May cause respiratory irritation.  
H336 May cause drowsiness or dizziness.  
H370 Causes damage to organs .  
H372 Causes damage to organs (Thyroid) through prolonged or repeated exposure.  
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.