

SAFETY DATA SHEET

TestOxidase™ Reagent

1. Identification of the substance/preparation and company/undertaking

Identification of the substance or preparation

Product name : TestOxidase™ Reagent **Code**
Trade name : TestOxidase™ Reagent PL 390
Use of the substance/preparation : TestOxidase™ Reagent is a qualitative method for the determination of bacterial cytochrome oxidase.
Company/undertaking identification
Supplier/Manufacturer : Pro-Lab Diagnostics, 20 Mural Street, Unit 4, Richmond Hill, ON, Canada L4B 1K3
Tel: +1-905-731-0300 Fax: +1-905-731-0206 www.pro-lab.com
Emergency telephone number : +44 (0)151 353 1613 -Monday to Friday 9:00 am to 5:00 pm.
+44 (0)7714 429 646 -Outside the above hours.

2. Composition/information on ingredients

Substance/preparation : Preparation

Ingredient name	CAS number	%	EC number	Classification
Propan-2-ol	67-63-0	70 - 100	200-661-7	F; R11 Xi; R36 R67
See section 16 for the full text of the R-phrases declared above				

Occupational exposure limits, if available, are listed in section 8.

3. Hazards identification

The preparation is classified as dangerous according to Directive 1999/45/EC and its amendments.

Classification : F; R11
Xi; R36
R67
Physical/chemical hazards : Highly flammable.
Human health hazards : Irritating to eyes.
Vapours may cause drowsiness and dizziness.

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

4. First-aid measures

First-aid measures

Inhalation : If inhaled, remove to fresh air. If not breathing, give artificial respiration. Get medical attention if symptoms appear.
Ingestion : Do not induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention if symptoms appear.
Skin contact : Wash with soap and water. Get medical attention if irritation occurs.
Eye contact : Check for and remove any contact lenses. In case of contact with eyes, rinse immediately with plenty of water. Get medical attention if irritation occurs.

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

5. Fire-fighting measures

- Extinguishing media** : Use dry chemical, carbon dioxide, water spray (fog) or foam.
- Special exposure hazards** : Highly flammable liquid and vapour. Vapour may cause flash fire. Vapours may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Runoff to sewer may create fire or explosion hazard.
- Hazardous thermal decomposition products** : These products are carbon oxides.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

6. Accidental release measures

- Personal precautions** : Immediately contact emergency personnel. Eliminate all ignition sources. Keep unnecessary personnel away. Use suitable protective equipment. Do not touch or walk through spilt material.
- Environmental precautions and clean-up methods** : Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.
If emergency personnel are unavailable, contain spilt material. For small spills, add absorbent (soil may be used in the absence of other suitable materials) and use a non-sparking or explosion-proof means to transfer material to a sealable, appropriate container for disposal. For large spills, dyke spilt material or otherwise contain material to ensure runoff does not reach a waterway. Place spilt material in an appropriate container for disposal.

Note: see section 8 for personal protective equipment and section 13 for waste disposal.

7. Handling and storage

- Handling** : Avoid contact with eyes. Keep container closed. Use only with adequate ventilation. Avoid breathing vapour or mist. Keep away from heat, sparks and flame. To avoid fire or explosion, dissipate static electricity during transfer by earthing and bonding containers and equipment before transferring material. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Wash thoroughly after handling.
- Storage** : Store in a segregated and approved area. Keep container in a cool, well-ventilated area. Keep container tightly closed and sealed until ready for use. Avoid all possible sources of ignition (spark or flame).
- Packaging materials**
- Recommended** : Use original container.
- Specific uses** : Not available.

8. Exposure controls/personal protection

Ingredient name

Propan-2-ol

Occupational exposure limits

EH40-OES (United Kingdom (UK), 5/2003).

STEL: 1250 mg/m³ 15 minute/minutes. Form: All forms.

STEL: 500 ppm 15 minute/minutes. Form: All forms.

TWA: 999 mg/m³ 8 hour/hours. Form: All forms.

TWA: 400 ppm 8 hour/hours. Form: All forms.

Exposure controls

Occupational exposure controls

- : Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapours below their respective occupational exposure limits. Ensure that eyewash stations and safety showers are close to the workstation location.

Hand protection

- : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.
>8 hour/hours (breakthrough time): Natural rubber (latex).



Eye protection

- : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts.
Recommended: Splash goggles.



Skin protection

- : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Body: Recommended: Lab coat.

9. Physical and chemical properties

General information

Appearance

Physical state : Liquid.

Important health, safety and environmental information

pH : Neutral.

Boiling point : Weighted average: 86°C (186.8°F)

Melting point : Weighted average: -71.1°C (-96°F)

Flash point : Closed cup: Between -18°C (0°F) and 23°C (73°F).

Explosion Limits : The greatest known range is Lower: 2.5% Upper: 12% (Propan-2-ol)

Vapour pressure : Weighted average: 3.98 kPa (29.85 mm Hg) (at 20°C)

Relative density : Weighted average: 0.82 g/cm³

Solubility : Easily soluble in cold water, hot water, methanol, acetone.

Vapour density : Weighted average: 1.78 (Air = 1)

Evaporation rate : 1.7 (Propan-2-ol) compared with Butyl acetate.

Other information

Auto-ignition temperature : The lowest known value is 399°C (750.2°F) (Propan-2-ol).

10. Stability and reactivity

Stability : The product is stable.

Materials to avoid : Reactive with oxidizing materials.

Hazardous decomposition products : These products are carbon oxides.

11. Toxicological information

Potential acute health effects

Inhalation : Harmful by inhalation.

Ingestion : No known significant effects or critical hazards.

Skin contact : No known significant effects or critical hazards.

Eye contact : Irritating to eyes.

Acute toxicity

<u>Ingredient name</u>	<u>Test</u>	<u>Result</u>	<u>Route</u>	<u>Species</u>
Propan-2-ol	LD50	5045 mg/kg	Oral	Rat
	LD50	6410 mg/kg	Oral	Rabbit
	LD50	3600 mg/kg	Oral	Mouse
	LD50	12800 mg/kg	Dermal	Rabbit
	LC50	16000 ppm (8 hour/hours)	Inhalation	Rat

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Reproductive toxicity : No known significant effects or critical hazards.

Over-exposure signs/symptoms

Inhalation : No known significant effects or critical hazards.

Ingestion : No known significant effects or critical hazards.

Skin : No known significant effects or critical hazards.

Target organs : Contains material which causes damage to the following organs: upper respiratory tract, skin, central nervous system (CNS), eye, lens or cornea.

Other adverse effects : Not available.

12. Ecological information

Ecotoxicity data

<u>Ingredient name</u>	<u>Species</u>	<u>Period</u>	<u>Result</u>
Propan-2-ol	Pimephales promelas (EC50)	48 hour/hours	10000 mg/l
	Lepomis macrochirus (LC50)	96 hour/hours	>1400 mg/l
	Pimephales promelas (LC50)	96 hour/hours	6550 mg/l
	Pimephales promelas (LC50)	96 hour/hours	9640 mg/l
	Pimephales promelas (LC50)	96 hour/hours	10400 mg/l
	Pimephales promelas (LC50)	96 hour/hours	11130 mg/l

Mobility : Not available.

Other adverse effects : No known significant effects or critical hazards.

13. Disposal considerations

Methods of disposal : The generation of waste should be avoided or minimized wherever possible. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.

Waste classification : Not applicable.

European waste catalogue (EWC) : Not available.

Hazardous waste : The classification of the product may meet the criteria for a hazardous waste.

14. Transport information

International transport regulations

Classification: ADR/ADNR/IMDG/IATA : Not regulated for a material classed as a combustible liquid in a non-bulk packaging.
(Packaging having <= 450 L water capacity).

Label: Not applicable.

Additional information

15. Regulatory information

EU regulations

Hazard symbol/symbols :



Highly flammable, Irritant

Risk phrases : R11- Highly flammable.
R36- Irritating to eyes.
R67- Vapours may cause drowsiness and dizziness.

Contains : Propan-2-ol 200-661-7

Product use : Classification and labelling have been performed according to EU Directives 67/548/EEC and 1999/45/EC (including amendments) and the intended use.
- Industrial applications.

EU statistical classification (Tariff Code) : 32089091

16. Other information

Full text of R-phrases referred to in sections 2 and 3 - United Kingdom (UK) : R11- Highly flammable.
 R36- Irritating to eyes.
 R67- Vapours may cause drowsiness and dizziness.

Full text of classifications referred to in sections 2 and 3 - United Kingdom (UK) : F - Highly flammable
 Xi - Irritant

Training advice : Not available.

Recommended use and restrictions : Not available.

Further information : Not available.

Key data sources : Not available.

Revision comments : Not available.

History

Date of issue : 09/30/2005

Version : 1

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

Version 1

Page: 5/5