

# SAFETY DATA SHEET



## Prolex™ Extraction Reagent Set

### 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

#### Identification of the substance or preparation

<b>Product name</b>	: Prolex™ Extraction Reagent Set	<b>Code</b>	
<b>Trade name</b>	: Prolex™ Extraction Reagent Set	PL.046	
	Streptococcal Grouping Reagent Extraction Reagent 1	PL.047	
	Streptococcal Grouping Reagent Extraction Reagent 2	PL.048	
	Streptococcal Grouping Reagent Extraction Reagent 3	PL.049	
<b>Product type</b>	: Liquid.		
<b>Material uses</b>	: Prolex™ Extraction Reagent Set, used in combination with Prolex™ Streptococcal Grouping Latex Reagents, provides a rapid method for the serological identification of groups A, B, C, D, F and G of the Lancefield groups of streptococci grown on agar plates.		
<b>Supplier/Manufacturer</b>	: 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		
<b>e-mail address of person responsible for this SDS</b>	: support@pro-lab.com		
<b>Emergency telephone number (with hours of operation)</b>	: +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. HAZARDS IDENTIFICATION

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

<b>Classification</b>	: PL.047	O; R8 Xn; R22 N; R50
	PL.048	Not classified.
	PL.049	Xi; R36/37/38
<b>Physical/chemical hazards</b>	: PL.047	Contact with combustible material may cause fire.
	PL.048	Not applicable.
	PL.049	Not applicable.
<b>Human health hazards</b>	: PL.047	Harmful if swallowed.
	PL.048	Not applicable.
	PL.049	Irritating to eyes, respiratory system and skin.
<b>Environmental hazards</b>	: PL.047	Very toxic to aquatic organisms.
	PL.048	Not applicable.
	PL.049	Not applicable.

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

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

**Substance/preparation** : Preparation

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient name	CAS number	%	Number	Classification
<b>Streptococcal Grouping Reagent Extraction Reagent 1 - PL.047</b> Sodium nitrite	7632-00-0	5 - 10	231-555-9	O; R8 T; R25 N; R50 [1]
Methanol	67-56-1	0.1 - 1	200-659-6	F; R11 T; R23/24/25, R39/23/24/25 [1] [2]
<b>Streptococcal Grouping Reagent Extraction Reagent 2 - PL.048</b> Acetic acid	64-19-7	<25	200-580-7	R10 C; R35 [1] [2]
<b>Streptococcal Grouping Reagent Extraction Reagent 3 - PL.049</b> 1,3-Propanediol, 2-amino-2-(hydroxymethyl) <b>See section 16 for the full text of the R-phrases declared above</b>	77-86-1	10 - 30	201-064-4	Xi; R36/37/38 [1]

**There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.**

[1] Substance classified with a health or environmental hazard

[2] Substance with a workplace exposure limit

[3] PBT-substance

[4] vPvB-substance

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

### 4. FIRST AID MEASURES

- Inhalation** : Move exposed person to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway.
- Ingestion** : Wash out mouth with water. Move exposed person to fresh air. Keep person warm and at rest. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway.
- Skin contact** : Flush contaminated skin with plenty of water. Get medical attention if symptoms occur.
- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Continue to rinse for at least 20 minutes. Get medical attention if irritation occurs.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.
- Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

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

## 5. FIRE-FIGHTING MEASURES

### Extinguishing media

- Suitable** : Use an extinguishing agent suitable for the surrounding fire.
- Not suitable** : None known.
- Special exposure hazards** : This material is very toxic to aquatic organisms. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
- Hazardous thermal decomposition products** : Decomposition products may include the following materials:  
carbon dioxide  
carbon monoxide  
nitrogen 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** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see section 8).
- Environmental precautions** : Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities.
- Methods for cleaning up**
- Small spill** : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product. Note: see section 1 for emergency contact information and section 13 for waste disposal.

## 7. HANDLING AND STORAGE

- Handling** : Put on appropriate personal protective equipment (see section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapour or mist. Avoid release to the environment. Refer to special instructions/safety data sheet. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Storage** : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. Store between the following temperatures: 2°C (36°F) to 8°C (46°F).
- Packaging materials**
- Recommended** : Use original container.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

<u>Ingredient name</u>	<u>Occupational exposure limits</u>
Methanol	<b>EH40/2005 WELs (United Kingdom (UK), 8/2007). Absorbed through skin.</b> STEL: 333 mg/m <sup>3</sup> 15 minute(s). STEL: 250 ppm 15 minute(s). TWA: 266 mg/m <sup>3</sup> 8 hour(s). TWA: 200 ppm 8 hour(s).
Acetic acid	<b>EU OEL (Europe, 4/2006).</b> Limit value: 25 mg/m <sup>3</sup> 8 hour(s). Limit value: 10 ppm 8 hour(s).

**Recommended monitoring procedures** : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to European Standard EN 689 for methods for the assessment of exposure by inhalation to chemical agents and national guidance documents for methods for the determination of hazardous substances.

### Exposure controls

**Occupational exposure controls** : If user operations generate dust, fumes, gas, vapour or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

**Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

**Respiratory protection** : Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

**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.

**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 or dusts.

**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.

**Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### General information

#### Appearance

<b>Physical state</b>	: PL.047	Liquid. [Transparent.]
	PL.048	Liquid. [Transparent.]
	PL.049	Liquid. [Transparent.]
<b>Colour</b>	: PL.047	Yellow.
	PL.048	Red.
	PL.049	Blue.

### Important health, safety and environmental information

**Solubility** : Miscible in water.

## 10. STABILITY AND REACTIVITY

- Chemical stability** : The product is stable.
- Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.
- Conditions to avoid** : Avoid release to the environment. Refer to special instructions/safety data sheet.
- Materials to avoid** : Reactive or incompatible with the following materials: oxidizing materials, reducing materials, organic materials, metals, acids and moisture.
- Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## 11. TOXICOLOGICAL INFORMATION

### Toxicokinetics

- Absorption** : Not available.
- Distribution** : Contains material which may cause damage to the following organs: upper respiratory tract, skin, eyes, teeth.
- Metabolism** : Not available.
- Elimination** : Not available.

### Potential acute health effects

- Inhalation** : PL.047 Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.  
 PL.048 May give off gas, vapor or dust that is very irritating or corrosive to the respiratory system.  
 PL.049 Irritating to respiratory system. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
- Ingestion** : PL.047 Harmful if swallowed.  
 PL.048 May cause burns to mouth, throat and stomach.  
 PL.049 Irritating to mouth, throat and stomach.
- Skin contact** : PL.047 May cause skin irritation.  
 PL.048 Severely corrosive to the skin. Causes burns.  
 PL.049 Irritating to skin.
- Eye contact** : PL.047 May cause eye irritation.  
 PL.048 Severely corrosive to the eyes. Causes severe burns.  
 PL.049 Irritating to eyes.

### Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
<b>Streptococcal Grouping Reagent Extraction Reagent 1 - PL.047</b> Sodium nitrite Methanol	LD50 Oral	Rat	85 mg/kg	-
	LC50 Inhalation Gas.	Rat	64000 ppm	4 hours
	LD50 Dermal	Rabbit	15800 mg/kg	-
	LD50 Oral	Rat	5600 mg/kg	-
<b>Streptococcal Grouping Reagent Extraction Reagent 2 - PL.048</b> Acetic acid	LD50 Oral	Rat	3310 mg/kg	-
<b>Streptococcal Grouping Reagent Extraction Reagent 3 - PL.049</b> 1,3-Propanediol, 2-amino-2-(hydroxymethyl)-	LD50 Oral	Rat	5900 mg/kg	-

### Potential chronic health effects

- Chronic effects** : No known significant effects or critical hazards.
- Carcinogenicity** : No known significant effects or critical hazards.
- Mutagenicity** : No known significant effects or critical hazards.
- Teratogenicity** : No known significant effects or critical hazards.
- Developmental effects** : No known significant effects or critical hazards.
- Fertility effects** : No known significant effects or critical hazards.

### Over-exposure signs/symptoms

- Inhalation** : No specific data.

## 11. TOXICOLOGICAL INFORMATION

**Ingestion** : No specific data.  
**Skin** : No specific data.  
**Eyes** : No specific data.

## 12. ECOLOGICAL INFORMATION

**Ecotoxicity** : Very toxic to aquatic organisms.

### Aquatic ecotoxicity

Product/ingredient name	Result	Species	Exposure
Sodium nitrite	Acute LC50 1100 ug/L Fresh water	Crustaceans - Cherax quadricarinatus - 0.1 to 0.14 g	48 hours
	Acute LC50 48 ug/L Fresh water	Fish - Ictalurus punctatus - Fingerling - 50 to 76 mm	96 hours
Methanol	Chronic NOEC 0.02 mg/L Fresh water	Fish - Labeo rohita - Fingerling	96 hours
	Acute LC50 250000 ug/L Marine water	Crustaceans - Crangon crangon - Adult	48 hours
	Acute LC50 3289 to 4395 mg/L Fresh water	Daphnia - Daphnia magna - Neonate - <24 hours	48 hours
	Acute LC50 >100000 ug/L Fresh water	Fish - Pimephales promelas - Juvenile (Fledgling, Hatchling, Weanling) - 0.2 to 0.5 g	96 hours
Acetic acid	Acute EC50 65000 ug/L Fresh water	Daphnia - Daphnia magna - Neonate - <24 hours	48 hours
	Acute LC50 50.1 ul/L Marine water	Crustaceans - Artemia sp.	48 hours
	Acute LC50 75000 ug/L Fresh water	Fish - Lepomis macrochirus - 5.3 to 7.2 cm - 3.5 to 3.9 g	96 hours

### Other ecological information

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Sodium nitrite	-	-	Readily

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

**PBT** : Not applicable.

**vPvB** : Not applicable.

## 13. DISPOSAL CONSIDERATIONS

**Methods of disposal** : The generation of waste should be avoided or minimised wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. 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. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.


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

## 14. TRANSPORT INFORMATION

### International transport regulations

Regulatory information	UN number	Proper shipping name	Classes	PG*	Label	Additional information
<b>ADR/RID Class</b>	UN3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Sodium nitrite)	9	III		Limited Quantity Exemption
<b>ADN/ADNR Class</b>	UN3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Sodium nitrite)	9	III		Limited Quantity Exemption
<b>IMDG Class</b>	UN3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Sodium nitrite)	9	III		Limited Quantity Exemption

## 14. TRANSPORT INFORMATION

<b>IATA Class</b>	UN3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Sodium nitrite)	9	III		Limited Quantity Exemption
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PG\* : Packing group

Exemption to the above classification may apply.

## 15. REGULATORY INFORMATION

### EU regulations

Classification and labeling have been determined according to EU Directives 67/548/EEC and 1999/45/EC (including amendments) and take into account the intended product use.

**Hazard symbol or symbols :**



Oxidising, Harmful, Dangerous for the environment

**Risk phrases :**

PL.047 R8- Contact with combustible material may cause fire.  
 R22- Harmful if swallowed.  
 R50- Very toxic to aquatic organisms.  
 PL.048 This product is not classified according to EU legislation.  
 PL.049 R36/37/38- Irritating to eyes, respiratory system and skin.

**Safety phrases :**

S26- In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
 S36/37/39- Wear suitable protective clothing, gloves and eye/face protection.  
 S45- In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).  
 S61- Avoid release to the environment. Refer to special instructions/safety data sheet.

**Contains :**

Sodium nitrite

**Product use :**

Industrial applications.

**Europe inventory :**

All components are listed or exempted.

**Black List Chemicals :**

Not listed

**Priority List Chemicals :**

Not listed

**Integrated pollution**

Not listed

**prevention and control list (IPPC) - Air**

**Integrated pollution**

Not listed

**prevention and control list (IPPC) - Water**

### International regulations

**Chemical Weapons Convention:** Not listed  
**List Schedule I Chemicals**

**Chemical Weapons Convention:** Not listed  
**List Schedule II Chemicals**

**Chemical Weapons Convention:** Not listed  
**List Schedule III Chemicals**

## 16. OTHER INFORMATION

**Full text of R-phrases referred to in sections 2 and 3 - United Kingdom (UK)**

R8- Contact with combustible material may cause fire.  
 R10- Flammable.  
 R25- Toxic if swallowed.  
 R22- Harmful if swallowed.  
 R34- Causes burns.  
 R35- Causes severe burns.  
 R36/37/38- Irritating to eyes, respiratory system and skin.  
 R50- Very toxic to aquatic organisms.

## 16. OTHER INFORMATION

**Full text of classifications referred to in sections 2 and 3 - United Kingdom (UK)** : O - Oxidising  
T - Toxic  
C - Corrosive  
Xn - Harmful  
Xi - Irritant  
N - Dangerous for the environment

### History

**Date of issue (dd/mm/yyyy)** : 01/12/2009  
**Date of previous issue** : 01/04/2009  
**Version** : 1.1

### 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.