

SAFETY DATA SHEET

Legionella DFA Reagents

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

1.1 Product identifier

Product name : Legionella DFA Reagents

Trade name

	Code
<i>Legionella pneumophila</i> sg 2 DFA Reagent	PL.205
<i>Legionella pneumophila</i> sg 3 DFA Reagent	PL.206
<i>Legionella pneumophila</i> sg 4 DFA Reagent	PL.207
<i>Legionella pneumophila</i> sg 5 DFA Reagent	PL.208
<i>Legionella pneumophila</i> sg 6 DFA Reagent	PL.209
<i>Legionella micdadei</i> DFA Reagent	PL.210
Phosphate Buffered Saline (10X concentrate)	PL.212
<i>Legionella</i> DFA Reagent Negative Control	PL.213A
Mounting Medium	PL.213
<i>Legionella pneumophila</i> sg 7 DFA Reagent	PL.276
<i>Legionella pneumophila</i> sg 8 DFA Reagent	PL.277
<i>Legionella pneumophila</i> sg 9 DFA Reagent	PL.278
<i>Legionella pneumophila</i> sg 10 DFA Reagent	PL.279
<i>Legionella pneumophila</i> sg 11 DFA Reagent	PL.280
<i>Legionella pneumophila</i> sg 12 DFA Reagent	PL.281
<i>Legionella pneumophila</i> sg 13 DFA Reagent	PL.282
<i>Legionella pneumophila</i> sg 14 DFA Reagent	PL.283
<i>Legionella pneumophila</i> DFA Reagent	PL.285
Polyvalent Positive Control (<i>Legionella pneumophila</i> sg 1-14)	

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

Identified uses : The *Legionella* Direct Fluorescent Antibody Reagents are intended for the presumptive (serological) identification of *Legionella pneumophila* serogroups 2 through 14 from culture isolates.

1.3 Details of the supplier of the safety data sheet

Supplier's details : 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

e-mail address of person responsible for this SDS : support@pro-lab.com

1.4 Emergency telephone number

National advisory body/Poison Centre

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

Emergency telephone number (with hours of operation) : +44 (0)151 353 1613 -Monday to Friday 8:30 am to 5:00 pm.
+44 (0)7714 429 646 -Outside the above hours.

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : Mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Not classified.

PL.205	The product is not classified as hazardous according to Regulation (EC) 1272/2008 as amended.
PL.212	The product is not classified as hazardous according to Regulation (EC) 1272/2008 as amended.
PL.213A	The product is not classified as hazardous according to Regulation (EC) 1272/2008 as amended.
PL.213	The product is not classified as hazardous according to Regulation (EC) 1272/2008 as amended.
PL.285	The product is not classified as hazardous according to Regulation (EC) 1272/2008 as amended.
PL.206	The product is not classified as hazardous according to Regulation (EC) 1272/2008 as amended.
PL.207	The product is not classified as hazardous according to Regulation (EC) 1272/2008 as amended.
PL.208	The product is not classified as hazardous according to Regulation (EC) 1272/2008 as amended.
PL.209	The product is not classified as hazardous according to Regulation (EC) 1272/2008 as amended.
PL.210	The product is not classified as hazardous according to Regulation (EC) 1272/2008 as amended.
PL.276	The product is not classified as hazardous according to Regulation (EC) 1272/2008 as amended.
PL.277	The product is not classified as hazardous according to Regulation (EC) 1272/2008 as amended.
PL.278	The product is not classified as hazardous according to Regulation (EC) 1272/2008 as amended.
PL.279	The product is not classified as hazardous according to Regulation (EC) 1272/2008 as amended.
PL.280	The product is not classified as hazardous according to Regulation (EC) 1272/2008 as amended.
PL.281	The product is not classified as hazardous according to Regulation (EC) 1272/2008 as amended.
PL.282	The product is not classified as hazardous according to Regulation (EC) 1272/2008 as amended.
PL.283	The product is not classified as hazardous according to Regulation (EC) 1272/2008 as amended.

See Section 16 for the full text of the H statements declared above.

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

2.2 Label elements



SECTION 2: Hazards identification

Signal word	: PL.205 PL.212 PL.213A PL.213 PL.285 PL.206 PL.207 PL.208 PL.209 PL.210 PL.276 PL.277 PL.278 PL.279 PL.280 PL.281 PL.282 PL.283	No signal word. No signal word. No signal word. No signal word. No signal word. No signal word. No signal word. No signal word. No signal word. No signal word. No signal word. No signal word. No signal word. No signal word. No signal word. No signal word. No signal word. No signal word.
Hazard statements	: PL.205 PL.212 PL.213A PL.213 PL.285 PL.206 PL.207 PL.208 PL.209 PL.210 PL.276 PL.277 PL.278 PL.279 PL.280 PL.281 PL.282 PL.283	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
<u>Precautionary statements</u>		
General	: Not applicable.	
Prevention	: Not applicable.	
Response	: Not applicable.	
Storage	: Not applicable.	
Disposal	: Not applicable.	
Supplemental label elements	: Not applicable.	
Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles	: Not applicable.	
<u>Special packaging requirements</u>		

SECTION 2: Hazards identification

Containers to be fitted with child-resistant fastenings : Not applicable.

Tactile warning of danger : Not applicable.

2.3 Other hazards

Other hazards which do not result in classification : None known.

SECTION 3: Composition/information on ingredients

3.2 Mixtures : Mixture

Product/ingredient name	Identifiers	%	Classification Regulation (EC) No. 1272/2008 [CLP]	Type
PL.213 Glycerol	REACH #: Annex V EC: 200-289-5 CAS: 56-81-5	≥90	Not classified.	[2]

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, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

Type

[1] Substance classified with a health or environmental hazard

[2] Substance with a workplace exposure limit

[3] Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII

[4] Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII

[5] Substance of equivalent concern

[6] Additional disclosure due to company policy

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

SECTION 4: First aid measures

4.1 Description of first aid measures

Eye contact : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.

Inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.

Skin contact : Flush contaminated skin with plenty of water. Get medical attention if symptoms occur.

Ingestion : Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training.

4.2 Most important symptoms and effects, both acute and delayed

Potential acute health effects

SECTION 4: First aid measures

- Eye contact** : No known significant effects or critical hazards.
Inhalation : No known significant effects or critical hazards.
Skin contact : No known significant effects or critical hazards.
Ingestion : No known significant effects or critical hazards.

Over-exposure signs/symptoms

- Eye contact** : No known significant effects or critical hazards.
Inhalation : No known significant effects or critical hazards.
Skin contact : No known significant effects or critical hazards.
Ingestion : No known significant effects or critical hazards.

4.3 Indication of any immediate medical attention and special treatment needed

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatments : No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

- Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media : None known.

5.2 Special hazards arising from the substance or mixture

- Hazards from the substance or mixture** : In a fire or if heated, a pressure increase will occur and the container may burst.
Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
halogenated compounds
metal oxide/oxides

5.3 Advice for firefighters

- Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
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. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : 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. Put on appropriate personal protective equipment.
- For emergency responders** : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

6.2 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).

6.3 Methods and material for containment and cleaning up

- Spill** : Stop leak if without risk. Move containers from spill area. 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. Dispose of via a licensed waste disposal contractor.

6.4 Reference to other sections

- : See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

7.1 Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8).
- Advice on general occupational hygiene** : 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. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities

Store between the following temperatures: 2 to 8°C (35.6 to 46.4°F). 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. See Section 10 for incompatible materials before handling or use.

7.3 Specific end use(s)

- Recommendations** : Not available.
- Industrial sector specific solutions** : Not available.

SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance. Information is provided based on typical anticipated uses of the product. Additional measures might be required for bulk handling or other uses that could significantly increase worker exposure or environmental releases.

8.1 Control parameters

Occupational exposure limits

Product/ingredient name	Exposure limit values
PL.213 Glycerol	EH40/2005 WELs (United Kingdom (UK), 12/2011). TWA: 10 mg/m ³ 8 hours. Form: Mist

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 monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

DNELs/DMELs

No DNELs/DMELs available.

PNECs

No PNECs available

8.2 Exposure controls

Appropriate engineering controls : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Individual protection measures

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.

Eye/face 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. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

Skin protection

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.

Body 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.

SECTION 8: Exposure controls/personal protection

- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state	:	PL.205	Liquid.
		PL.212	Liquid.
		PL.213A	Liquid.
		PL.213	Liquid. [Viscous solution.]
		PL.285	Liquid.
		PL.206	Liquid.
		PL.207	Liquid.
		PL.208	Liquid.
		PL.209	Liquid.
		PL.210	Liquid.
		PL.276	Liquid.
		PL.277	Liquid.
		PL.278	Liquid.
		PL.279	Liquid.
		PL.280	Liquid.
		PL.281	Liquid.
		PL.282	Liquid.
		PL.283	Liquid.

Colour	:	PL.205	Red. [Dark]
		PL.212	Clear.
		PL.213A	Red. [Dark]
		PL.213	Clear.
		PL.285	Translucent.
		PL.206	Red. [Dark]
		PL.207	Red. [Dark]
		PL.208	Red. [Dark]
		PL.209	Red. [Dark]
		PL.210	Red. [Dark]
		PL.276	Red. [Dark]
		PL.277	Red. [Dark]
		PL.278	Red. [Dark]
		PL.279	Red. [Dark]
		PL.280	Red. [Dark]
		PL.281	Red. [Dark]
		PL.282	Red. [Dark]
		PL.283	Red. [Dark]

Odour : Not available.

Odour threshold : Not available.

SECTION 9: Physical and chemical properties

pH	: PL.205 PL.212 PL.213A PL.213 PL.285 PL.206 PL.207 PL.208 PL.209 PL.210 PL.276 PL.277 PL.278 PL.279 PL.280 PL.281 PL.282 PL.283	Not available. Not available. Not available. Not available. Not available. Not available. Not available. Not available. Not available. Not available. Not available. Not available. Not available. Not available. Not available. Not available. Not available. Not available.
Melting point/freezing point	: Not available.	
Initial boiling point and boiling range	: Not available.	
Flash point	: Not available.	
Evaporation rate	: Not available.	
Flammability (solid, gas)	: Not available.	
Upper/lower flammability or explosive limits	: Not available.	
Vapour pressure	: Not available.	
Vapour density	: Not available.	
Relative density	: Not available.	
Solubility(ies)	: Easily soluble in the following materials: cold water and hot water.	
Partition coefficient: n-octanol/ water	: Not available.	
Auto-ignition temperature	: Not available.	
Decomposition temperature	: Not available.	
Viscosity	: Not available.	
Explosive properties	: Not available.	
Oxidising properties	: Not available.	

9.2 Other information

No additional information.

SECTION 10: Stability and reactivity

- 10.1 Reactivity** : No specific test data related to reactivity available for this product or its ingredients.
- 10.2 Chemical stability** : The product is stable.
- 10.3 Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.
- 10.4 Conditions to avoid** : No specific data.
- 10.5 Incompatible materials** : Reactive or incompatible with the following materials: oxidising materials.
- 10.6 Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
PL.205 Sodium azide	LD50 Dermal LD50 Dermal LD50 Oral	Rabbit Rat Rat	20 mg/kg 50 mg/kg 27 mg/kg	- - -
PL.212 Disodium hydrogenorthophosphate	LD50 Oral	Rat	17000 mg/kg	-
PL.213A Sodium azide	LD50 Dermal LD50 Dermal LD50 Oral	Rabbit Rat Rat	20 mg/kg 50 mg/kg 27 mg/kg	- - -
PL.213 Glycerol Sodium azide	LD50 Oral LD50 Dermal LD50 Dermal LD50 Oral	Rat Rabbit Rat Rat	12600 mg/kg 20 mg/kg 50 mg/kg 27 mg/kg	- - - -
PL.285 Sodium azide	LD50 Dermal LD50 Dermal LD50 Oral	Rabbit Rat Rat	20 mg/kg 50 mg/kg 27 mg/kg	- - -
PL.206 Sodium azide	LD50 Dermal LD50 Dermal LD50 Oral	Rabbit Rat Rat	20 mg/kg 50 mg/kg 27 mg/kg	- - -
PL.207 Sodium azide	LD50 Dermal LD50 Dermal LD50 Oral	Rabbit Rat Rat	20 mg/kg 50 mg/kg 27 mg/kg	- - -
PL.208 Sodium azide	LD50 Dermal LD50 Dermal LD50 Oral	Rabbit Rat Rat	20 mg/kg 50 mg/kg 27 mg/kg	- - -
PL.209 Sodium azide	LD50 Dermal LD50 Dermal	Rabbit Rat	20 mg/kg 50 mg/kg	- -

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PL.210 Sodium azide	LD50 Oral	Rat	27 mg/kg	-
	LD50 Dermal	Rabbit	20 mg/kg	-
	LD50 Dermal LD50 Oral	Rat Rat	50 mg/kg 27 mg/kg	- -
PL.276 Sodium azide	LD50 Dermal	Rabbit	20 mg/kg	-
	LD50 Dermal	Rat	50 mg/kg	-
	LD50 Oral	Rat	27 mg/kg	-
PL.277 Sodium azide	LD50 Dermal	Rabbit	20 mg/kg	-
	LD50 Dermal	Rat	50 mg/kg	-
	LD50 Oral	Rat	27 mg/kg	-
PL.278 Sodium azide	LD50 Dermal	Rabbit	20 mg/kg	-
	LD50 Dermal	Rat	50 mg/kg	-
	LD50 Oral	Rat	27 mg/kg	-
PL.279 Sodium azide	LD50 Dermal	Rabbit	20 mg/kg	-
	LD50 Dermal	Rat	50 mg/kg	-
	LD50 Oral	Rat	27 mg/kg	-
PL.280 Sodium azide	LD50 Dermal	Rabbit	20 mg/kg	-
	LD50 Dermal	Rat	50 mg/kg	-
	LD50 Oral	Rat	27 mg/kg	-
PL.281 Sodium azide	LD50 Dermal	Rabbit	20 mg/kg	-
	LD50 Dermal	Rat	50 mg/kg	-
	LD50 Oral	Rat	27 mg/kg	-
PL.282 Sodium azide	LD50 Dermal	Rabbit	20 mg/kg	-
	LD50 Dermal	Rat	50 mg/kg	-
	LD50 Oral	Rat	27 mg/kg	-
PL.283 Sodium azide	LD50 Dermal	Rabbit	20 mg/kg	-
	LD50 Dermal	Rat	50 mg/kg	-
	LD50 Oral	Rat	27 mg/kg	-

Acute toxicity estimates

Route	ATE value
PL.205 Oral	27028.1 mg/kg
PL.213A Oral	27141.5 mg/kg
PL.213 Oral	27000 mg/kg
PL.285 Oral	27000 mg/kg
PL.206 Oral	27028.1 mg/kg
PL.207 Oral	27028.1 mg/kg
PL.208 Oral	27028.1 mg/kg

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PL.209 Oral	27028.1 mg/kg
PL.210 Oral	27028.1 mg/kg
PL.276 Oral	27028.1 mg/kg
PL.277 Oral	27028.1 mg/kg
PL.278 Oral	27028.1 mg/kg
PL.279 Oral	27028.1 mg/kg
PL.280 Oral	27028.1 mg/kg
PL.281 Oral	27028.1 mg/kg
PL.282 Oral	27028.1 mg/kg
PL.283 Oral	27028.1 mg/kg

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
PL.212 Disodium hydrogenorthophosphate	Eyes - Mild irritant Skin - Mild irritant	Rabbit Rabbit	- -	24 hours 500 mg 24 hours 500 mg	- -
PL.213 Glycerol	Eyes - Mild irritant Skin - Mild irritant	Rabbit Rabbit	- -	24 hours 500 mg 24 hours 500 mg	- -

Sensitisation

There is no data available.

Mutagenicity

There is no data available.

Carcinogenicity

There is no data available.

Reproductive toxicity

There is no data available.

Teratogenicity

There is no data available.

Specific target organ toxicity (single exposure)

There is no data available.

Specific target organ toxicity (repeated exposure)

There is no data available.

Aspiration hazard

There is no data available.

SECTION 11: Toxicological information

Information on likely routes of exposure : Dermal contact. Eye contact. Inhalation. Ingestion.

Potential acute health effects

Eye contact : No known significant effects or critical hazards.
Inhalation : No known significant effects or critical hazards.
Skin contact : No known significant effects or critical hazards.
Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : No known significant effects or critical hazards.
Inhalation : No known significant effects or critical hazards.
Skin contact : No known significant effects or critical hazards.
Ingestion : No known significant effects or critical hazards.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Short term exposure

Potential immediate effects : No known significant effects or critical hazards.
Potential delayed effects : No known significant effects or critical hazards.

Long term exposure

Potential immediate effects : No known significant effects or critical hazards.
Potential delayed effects : No known significant effects or critical hazards.

Potential chronic health effects

General : 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.

Other information : Not available.

SECTION 12: Ecological information

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
PL.205 Boric acid	Acute LC50 133000 µg/L Fresh water Acute LC50 108 mg/L Marine water Chronic NOEC 6000 µg/L Fresh water Chronic NOEC 2100 µg/L Fresh water	Daphnia - Daphnia magna - Neonate Fish - Paralichthys olivaceus Daphnia - Daphnia magna	48 hours 96 hours 21 days
Sodium azide	Chronic NOEC 2100 µg/L Fresh water Acute EC50 0.348 mg/L Fresh water Acute EC50 6.4 mg/L Fresh water	Fish - Oncorhynchus mykiss Algae - Pseudokirchneriella subcapitata Crustaceans - Simocephalus serrulatus - Larvae	87 days 96 hours 48 hours
PL.212	Acute EC50 4.2 mg/L Fresh water Acute LC50 0.68 mg/L Fresh water Chronic NOEC 5600 µg/L Marine water	Daphnia - Daphnia pulex - Larvae Fish - Lepomis macrochirus Algae - Macrocyctis pyrifera	48 hours 96 hours 96 hours

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Disodium hydrogenorthophosphate	Acute LC50 3580000 µg/L Fresh water	Daphnia - Daphnia magna	48 hours
PL.213A Boric acid	Acute LC50 133000 µg/L Fresh water Acute LC50 108 mg/L Marine water Chronic NOEC 6000 µg/L Fresh water Chronic NOEC 2100 µg/L Fresh water	Daphnia - Daphnia magna - Neonate Fish - Paralichthys olivaceus Daphnia - Daphnia magna Fish - Oncorhynchus mykiss	48 hours 96 hours 21 days 87 days
Sodium azide	Acute EC50 0.348 mg/L Fresh water Acute EC50 6.4 mg/L Fresh water	Algae - Pseudokirchneriella subcapitata Crustaceans - Simocephalus serrulatus - Larvae	96 hours 48 hours
PL.213 Sodium azide	Acute EC50 4.2 mg/L Fresh water Acute LC50 0.68 mg/L Fresh water Chronic NOEC 5600 µg/L Marine water	Daphnia - Daphnia pulex - Larvae Fish - Lepomis macrochirus Algae - Macrocystis pyrifera	48 hours 96 hours 96 hours
PL.213 Sodium azide	Acute EC50 0.348 mg/L Fresh water Acute EC50 6.4 mg/L Fresh water	Algae - Pseudokirchneriella subcapitata Crustaceans - Simocephalus serrulatus - Larvae	96 hours 48 hours
PL.285 Sodium azide	Acute EC50 4.2 mg/L Fresh water Acute LC50 0.68 mg/L Fresh water Chronic NOEC 5600 µg/L Marine water	Daphnia - Daphnia pulex - Larvae Fish - Lepomis macrochirus Algae - Macrocystis pyrifera	48 hours 96 hours 96 hours
PL.285 Sodium azide	Acute EC50 0.348 mg/L Fresh water Acute EC50 6.4 mg/L Fresh water	Algae - Pseudokirchneriella subcapitata Crustaceans - Simocephalus serrulatus - Larvae	96 hours 48 hours
PL.285 Sodium azide	Acute EC50 4.2 mg/L Fresh water Acute LC50 0.68 mg/L Fresh water Chronic NOEC 5600 µg/L Marine water	Daphnia - Daphnia pulex - Larvae Fish - Lepomis macrochirus Algae - Macrocystis pyrifera	48 hours 96 hours 96 hours
PL.206 Boric acid	Acute LC50 133000 µg/L Fresh water Acute LC50 108 mg/L Marine water Chronic NOEC 6000 µg/L Fresh water Chronic NOEC 2100 µg/L Fresh water	Daphnia - Daphnia magna - Neonate Fish - Paralichthys olivaceus Daphnia - Daphnia magna Fish - Oncorhynchus mykiss	48 hours 96 hours 21 days 87 days
Sodium azide	Acute EC50 0.348 mg/L Fresh water Acute EC50 6.4 mg/L Fresh water	Algae - Pseudokirchneriella subcapitata Crustaceans - Simocephalus serrulatus - Larvae	96 hours 48 hours
PL.206 Sodium azide	Acute EC50 4.2 mg/L Fresh water Acute LC50 0.68 mg/L Fresh water Chronic NOEC 5600 µg/L Marine water	Daphnia - Daphnia pulex - Larvae Fish - Lepomis macrochirus Algae - Macrocystis pyrifera	48 hours 96 hours 96 hours
PL.207 Boric acid	Acute LC50 133000 µg/L Fresh water Acute LC50 108 mg/L Marine water Chronic NOEC 6000 µg/L Fresh water Chronic NOEC 2100 µg/L Fresh water	Daphnia - Daphnia magna - Neonate Fish - Paralichthys olivaceus Daphnia - Daphnia magna Fish - Oncorhynchus mykiss	48 hours 96 hours 21 days 87 days
Sodium azide	Acute EC50 0.348 mg/L Fresh water Acute EC50 6.4 mg/L Fresh water	Algae - Pseudokirchneriella subcapitata Crustaceans - Simocephalus serrulatus - Larvae	96 hours 48 hours
PL.207 Sodium azide	Acute EC50 4.2 mg/L Fresh water Acute LC50 0.68 mg/L Fresh water Chronic NOEC 5600 µg/L Marine water	Daphnia - Daphnia pulex - Larvae Fish - Lepomis macrochirus Algae - Macrocystis pyrifera	48 hours 96 hours 96 hours
PL.208 Boric acid	Acute LC50 133000 µg/L Fresh water Acute LC50 108 mg/L Marine water Chronic NOEC 6000 µg/L Fresh water Chronic NOEC 2100 µg/L Fresh water	Daphnia - Daphnia magna - Neonate Fish - Paralichthys olivaceus Daphnia - Daphnia magna Fish - Oncorhynchus mykiss	48 hours 96 hours 21 days 87 days
Sodium azide	Acute EC50 0.348 mg/L Fresh water Acute EC50 6.4 mg/L Fresh water	Algae - Pseudokirchneriella subcapitata Crustaceans - Simocephalus serrulatus - Larvae	96 hours 48 hours
PL.208 Sodium azide	Acute EC50 4.2 mg/L Fresh water Acute LC50 0.68 mg/L Fresh water Chronic NOEC 5600 µg/L Marine water	Daphnia - Daphnia pulex - Larvae Fish - Lepomis macrochirus Algae - Macrocystis pyrifera	48 hours 96 hours 96 hours
PL.209 Boric acid	Acute LC50 133000 µg/L Fresh water Acute LC50 108 mg/L Marine water Chronic NOEC 6000 µg/L Fresh water	Daphnia - Daphnia magna - Neonate Fish - Paralichthys olivaceus Daphnia - Daphnia magna	48 hours 96 hours 21 days

SECTION 12: Ecological information

Sodium azide	Chronic NOEC 2100 µg/L Fresh water Acute EC50 0.348 mg/L Fresh water Acute EC50 6.4 mg/L Fresh water	Fish - Oncorhynchus mykiss Algae - Pseudokirchneriella subcapitata Crustaceans - Simocephalus serrulatus - Larvae	87 days 96 hours 48 hours
	Acute EC50 4.2 mg/L Fresh water Acute LC50 0.68 mg/L Fresh water Chronic NOEC 5600 µg/L Marine water	Daphnia - Daphnia pulex - Larvae Fish - Lepomis macrochirus Algae - Macrocyctis pyrifera	48 hours 96 hours 96 hours
PL.210 Boric acid	Acute LC50 133000 µg/L Fresh water Acute LC50 108 mg/L Marine water Chronic NOEC 6000 µg/L Fresh water Chronic NOEC 2100 µg/L Fresh water	Daphnia - Daphnia magna - Neonate Fish - Paralichthys olivaceus Daphnia - Daphnia magna	48 hours 96 hours 21 days
Sodium azide	Chronic NOEC 2100 µg/L Fresh water Acute EC50 0.348 mg/L Fresh water Acute EC50 6.4 mg/L Fresh water	Fish - Oncorhynchus mykiss Algae - Pseudokirchneriella subcapitata Crustaceans - Simocephalus serrulatus - Larvae	87 days 96 hours 48 hours
	Acute EC50 4.2 mg/L Fresh water Acute LC50 0.68 mg/L Fresh water Chronic NOEC 5600 µg/L Marine water	Daphnia - Daphnia pulex - Larvae Fish - Lepomis macrochirus Algae - Macrocyctis pyrifera	48 hours 96 hours 96 hours
PL.276 Boric acid	Acute LC50 133000 µg/L Fresh water Acute LC50 108 mg/L Marine water Chronic NOEC 6000 µg/L Fresh water Chronic NOEC 2100 µg/L Fresh water	Daphnia - Daphnia magna - Neonate Fish - Paralichthys olivaceus Daphnia - Daphnia magna	48 hours 96 hours 21 days
Sodium azide	Chronic NOEC 2100 µg/L Fresh water Acute EC50 0.348 mg/L Fresh water Acute EC50 6.4 mg/L Fresh water	Fish - Oncorhynchus mykiss Algae - Pseudokirchneriella subcapitata Crustaceans - Simocephalus serrulatus - Larvae	87 days 96 hours 48 hours
	Acute EC50 4.2 mg/L Fresh water Acute LC50 0.68 mg/L Fresh water Chronic NOEC 5600 µg/L Marine water	Daphnia - Daphnia pulex - Larvae Fish - Lepomis macrochirus Algae - Macrocyctis pyrifera	48 hours 96 hours 96 hours
PL.277 Boric acid	Acute LC50 133000 µg/L Fresh water Acute LC50 108 mg/L Marine water Chronic NOEC 6000 µg/L Fresh water Chronic NOEC 2100 µg/L Fresh water	Daphnia - Daphnia magna - Neonate Fish - Paralichthys olivaceus Daphnia - Daphnia magna	48 hours 96 hours 21 days
Sodium azide	Chronic NOEC 2100 µg/L Fresh water Acute EC50 0.348 mg/L Fresh water Acute EC50 6.4 mg/L Fresh water	Fish - Oncorhynchus mykiss Algae - Pseudokirchneriella subcapitata Crustaceans - Simocephalus serrulatus - Larvae	87 days 96 hours 48 hours
	Acute EC50 4.2 mg/L Fresh water Acute LC50 0.68 mg/L Fresh water Chronic NOEC 5600 µg/L Marine water	Daphnia - Daphnia pulex - Larvae Fish - Lepomis macrochirus Algae - Macrocyctis pyrifera	48 hours 96 hours 96 hours
PL.278 Boric acid	Acute LC50 133000 µg/L Fresh water Acute LC50 108 mg/L Marine water Chronic NOEC 6000 µg/L Fresh water Chronic NOEC 2100 µg/L Fresh water	Daphnia - Daphnia magna - Neonate Fish - Paralichthys olivaceus Daphnia - Daphnia magna	48 hours 96 hours 21 days
Sodium azide	Chronic NOEC 2100 µg/L Fresh water Acute EC50 0.348 mg/L Fresh water Acute EC50 6.4 mg/L Fresh water	Fish - Oncorhynchus mykiss Algae - Pseudokirchneriella subcapitata Crustaceans - Simocephalus serrulatus - Larvae	87 days 96 hours 48 hours
	Acute EC50 4.2 mg/L Fresh water Acute LC50 0.68 mg/L Fresh water Chronic NOEC 5600 µg/L Marine water	Daphnia - Daphnia pulex - Larvae Fish - Lepomis macrochirus Algae - Macrocyctis pyrifera	48 hours 96 hours 96 hours
PL.279 Boric acid	Acute LC50 133000 µg/L Fresh water Acute LC50 108 mg/L Marine water Chronic NOEC 6000 µg/L Fresh water Chronic NOEC 2100 µg/L Fresh water	Daphnia - Daphnia magna - Neonate Fish - Paralichthys olivaceus Daphnia - Daphnia magna	48 hours 96 hours 21 days
Sodium azide	Chronic NOEC 2100 µg/L Fresh water Acute EC50 0.348 mg/L Fresh water Acute EC50 6.4 mg/L Fresh water	Fish - Oncorhynchus mykiss Algae - Pseudokirchneriella subcapitata Crustaceans - Simocephalus serrulatus - Larvae	87 days 96 hours 48 hours
	Acute EC50 4.2 mg/L Fresh water Acute LC50 0.68 mg/L Fresh water Chronic NOEC 5600 µg/L Marine water	Daphnia - Daphnia pulex - Larvae Fish - Lepomis macrochirus Algae - Macrocyctis pyrifera	48 hours 96 hours 96 hours
PL.280 Boric acid	Acute LC50 133000 µg/L Fresh water	Daphnia - Daphnia magna - Neonate	48 hours

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Sodium azide	Acute LC50 108 mg/L Marine water Chronic NOEC 6000 µg/L Fresh water Chronic NOEC 2100 µg/L Fresh water Acute EC50 0.348 mg/L Fresh water Acute EC50 6.4 mg/L Fresh water	Fish - Paralichthys olivaceus Daphnia - Daphnia magna Fish - Oncorhynchus mykiss Algae - Pseudokirchneriella subcapitata Crustaceans - Simocephalus serrulatus - Larvae	96 hours 21 days 87 days 96 hours 48 hours
	Acute EC50 4.2 mg/L Fresh water Acute LC50 0.68 mg/L Fresh water Chronic NOEC 5600 µg/L Marine water	Daphnia - Daphnia pulex - Larvae Fish - Lepomis macrochirus Algae - Macrocyctis pyrifera	48 hours 96 hours 96 hours
PL.281 Boric acid	Acute LC50 133000 µg/L Fresh water Acute LC50 108 mg/L Marine water Chronic NOEC 6000 µg/L Fresh water Chronic NOEC 2100 µg/L Fresh water Acute EC50 0.348 mg/L Fresh water Acute EC50 6.4 mg/L Fresh water	Daphnia - Daphnia magna - Neonate Fish - Paralichthys olivaceus Daphnia - Daphnia magna Fish - Oncorhynchus mykiss Algae - Pseudokirchneriella subcapitata Crustaceans - Simocephalus serrulatus - Larvae	48 hours 96 hours 21 days 87 days 96 hours 48 hours
Sodium azide	Acute EC50 4.2 mg/L Fresh water Acute LC50 0.68 mg/L Fresh water Chronic NOEC 5600 µg/L Marine water	Daphnia - Daphnia pulex - Larvae Fish - Lepomis macrochirus Algae - Macrocyctis pyrifera	48 hours 96 hours 96 hours
PL.282 Boric acid	Acute LC50 133000 µg/L Fresh water Acute LC50 108 mg/L Marine water Chronic NOEC 6000 µg/L Fresh water Chronic NOEC 2100 µg/L Fresh water Acute EC50 0.348 mg/L Fresh water Acute EC50 6.4 mg/L Fresh water	Daphnia - Daphnia magna - Neonate Fish - Paralichthys olivaceus Daphnia - Daphnia magna Fish - Oncorhynchus mykiss Algae - Pseudokirchneriella subcapitata Crustaceans - Simocephalus serrulatus - Larvae	48 hours 96 hours 21 days 87 days 96 hours 48 hours
Sodium azide	Acute EC50 4.2 mg/L Fresh water Acute LC50 0.68 mg/L Fresh water Chronic NOEC 5600 µg/L Marine water	Daphnia - Daphnia pulex - Larvae Fish - Lepomis macrochirus Algae - Macrocyctis pyrifera	48 hours 96 hours 96 hours
PL.283 Boric acid	Acute LC50 133000 µg/L Fresh water Acute LC50 108 mg/L Marine water Chronic NOEC 6000 µg/L Fresh water Chronic NOEC 2100 µg/L Fresh water Acute EC50 0.348 mg/L Fresh water Acute EC50 6.4 mg/L Fresh water	Daphnia - Daphnia magna - Neonate Fish - Paralichthys olivaceus Daphnia - Daphnia magna Fish - Oncorhynchus mykiss Algae - Pseudokirchneriella subcapitata Crustaceans - Simocephalus serrulatus - Larvae	48 hours 96 hours 21 days 87 days 96 hours 48 hours
Sodium azide	Acute EC50 4.2 mg/L Fresh water Acute LC50 0.68 mg/L Fresh water Chronic NOEC 5600 µg/L Marine water	Daphnia - Daphnia pulex - Larvae Fish - Lepomis macrochirus Algae - Macrocyctis pyrifera	48 hours 96 hours 96 hours

12.2 Persistence and degradability

There is no data available.

12.3 Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
PL.205 Boric acid	-1.09	-	low
PL.212 Disodium hydrogenorthophosphate	-5.8	-	low
PL.213A Boric acid	-1.09	-	low
PL.213 Glycerol	-1.76	-	low
PL.206 Boric acid	-1.09	-	low

SECTION 12: Ecological information

PL.207 Boric acid	-1.09	-	low
PL.208 Boric acid	-1.09	-	low
PL.209 Boric acid	-1.09	-	low
PL.210 Boric acid	-1.09	-	low
PL.276 Boric acid	-1.09	-	low
PL.277 Boric acid	-1.09	-	low
PL.278 Boric acid	-1.09	-	low
PL.279 Boric acid	-1.09	-	low
PL.280 Boric acid	-1.09	-	low
PL.281 Boric acid	-1.09	-	low
PL.282 Boric acid	-1.09	-	low
PL.283 Boric acid	-1.09	-	low

12.4 Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

Mobility : Not available.

12.5 Results of PBT and vPvB assessment

PBT : Not applicable.

vPvB : Not applicable.

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

SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

13.1 Waste treatment methods

Product

SECTION 13: Disposal considerations

- Methods of disposal** : The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.
- Hazardous waste** : Within the present knowledge of the supplier, this product is not regarded as hazardous waste, as defined by EU Directive 2008/98/EC.
- Packaging**
- Methods of disposal** : The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.
- Special precautions** : This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

	ADR/RID	ADN	IMDG	IATA
14.1 UN number	Not regulated.	Not regulated.	Not regulated.	Not regulated.
14.2 UN proper shipping name	-	-	-	-
14.3 Transport hazard class(es)	-	-	-	-
14.4 Packing group	-	-	-	-
14.5 Environmental hazards	No.	No.	No.	No.
Additional information	-	-	-	-

- 14.6 Special precautions for user** : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorisation

Annex XIV

None of the components are listed.

Substances of very high concern



SECTION 15: Regulatory information

None of the components are listed.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles : Not applicable.

Other EU regulations

Europe inventory : Not determined.

Ozone depleting substances (1005/2009/EU)

Not listed.

Prior Informed Consent (PIC) (649/2012/EU)

Not listed.

Seveso Directive

This product is not controlled under the Seveso Directive.

15.2 Chemical safety assessment : This product contains substances for which Chemical Safety Assessments are still required.

SECTION 16: Other information

Abbreviations and acronyms : ATE = Acute Toxicity Estimate
CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
DMEL = Derived Minimal Effect Level
DNEL = Derived No Effect Level
EUH statement = CLP-specific Hazard statement
PBT = Persistent, Bioaccumulative and Toxic
PNEC = Predicted No Effect Concentration
RRN = REACH Registration Number
vPvB = Very Persistent and Very Bioaccumulative

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
Not classified.	

Full text of abbreviated H statements : Not applicable.

Full text of classifications [CLP/GHS] : Not applicable.

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