SAFETY DATA SHEET

Agilent Technologies

PLgel in ethylbenzene - less than 10 ml

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

This product is considered an article. This Safety Data Sheet is written based on the encapsulated substance or mixture in this article.

1.1 Product identifier

Product name : PLgel in ethylbenzene - less than 10 ml

Part no. : PL1110-1120, PL1110-1120DW, PL1110-1220, PL1110-1220DW, PL1110-1320, PL1110-1400, PL1110-1520, PL1110-6100, PL1110-6100DW, PL1110-6100LS, PL1110-6115, PL1110-6120, PL1110-6125, PL1110-6130, PL1110-6140, PL1110-6150, PL1110-6160, PL1110-6200, PL1110-6200LS, PL1110-6300, PL1110-6320, PL1110-6400, PL1110-6500, PL1110-6504, PL1110-6515, PL1110-6520, PL1110-6525, PL1110-6530, PL1110-6540, PL1110-6550, PL1210-1120, PL1510-1100, PL1510-1200, PL1510-1300, PL1510-1500, PL1510-1504, PL1510-1520, PL1510-3515, PL1510-5100, PL1510-5200, PL1510-5300, PL1510-5320, PL1510-5500, PL1510-5504, PL2010-0700, PL1113-1300, PL1113-1320, PL1113-1325, PL1113-1500, PL1113-6300, PL1113-6325, PL1113-6500, PL1113-6520, PL1513-1300, PL1513-1320, PL1513-1500, PL1513-5300, PL1513-5325, PL1513-5500, PL1513-5520, PL1913-5300, PL1913-5325, PL1913-5500, PL1913-5520, PL1010-2504, PL1013-2100, PL1110-6260, PL1510-5520, PL1510-5525, PL1510-5530, PL1510-5540

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

Material uses : Analytical chemistry.
chromatography column
Solvent volume: < 10 mL

PL1110-1120	PLgel 10um Guard 50 x 7.5 mm
PL1110-1120DW	PLgel 10um Guard 50 x 7.7 mm
PL1110-1220	PLgel 20um Guard 50 x 7.5 mm
PL1110-1220DW	PLgel 20um Guard 50 x 7.7 mm compression
PL1110-1320	PLgel 3um Guard 50 x 7.5 mm
PL1110-1400	PLgel Olexis Guard 50 x 7.5 mm
PL1110-1520	PLgel 5um Guard 50 x 7.5 mm
PL1110-6100	PLgel 10um MIXED-B 300 x 7.5 mm
PL1110-6100DW	PLgel 10um MIXED-B 300 x 7.5 mm
PL1110-6100LS	PLgel 10um MIXED-B LS 300 x 7.5 mm
PL1110-6115	PLgel 10um 50A 300 x 7.5 mm
PL1110-6120	PLgel 10um 100A 300 x 7.5 mm
PL1110-6125	PLgel 10um 500A 300 x 7.5 mm
PL1110-6130	PLgel 10um 10E3A 300 x 7.5 mm
PL1110-6140	PLgel 10um 10E4A 300 x 7.5 mm
PL1110-6150	PLgel 10um 10E5A 300 x 7.5 mm
PL1110-6160	PLgel 10um 10E6A 300 x 7.5 mm
PL1110-6200	PLgel 20um MIXED-A 300 x 7.5 mm
PL1110-6200LS	PLgel 20um MIXED-A LS 300 x 7.5 mm
PL1110-6300	PLgel 3um MIXED-E 300 x 7.5 mm
PL1110-6320	PLgel 3um 100A 300 x 7.5 mm
PL1110-6400	PLgel Olexis 300 x 7.5 mm
PL1110-6500	PLgel 5um MIXED-C 300 x 7.5 mm
PL1110-6504	PLgel 5um MIXED-D 300 x 7.5 mm
PL1110-6515	PLgel 5um 50A 300 x 7.5 mm
PL1110-6520	PLgel 5um 100A 300 x 7.5 mm
PL1110-6525	PLgel 5um 500A 300 x 7.5 mm
PL1110-6530	PLgel 5um 10E3A 300 x 7.5 mm
PL1110-6540	PLgel 5um 10E4A 300 x 7.5 mm
PL1110-6550	PLgel 5um 10E5A 300 x 7.5 mm
PL1210-1120	PLgel Prep Guard 25 x 25 mm
PL1510-1100	PLgel 10um MiniMIX-B Guard 50 x 4.6 mm
PL1510-1200	PLgel 20um MimiMIX-A Guard 50 x 4.6 mm
PL1510-1300	PLgel 3um MiniMIX-E Guard 50 x 4.6 mm

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

PL1510-1500	PLgel 5um MiniMIX-C Guard 50 x 4.6 mm
PL1510-1504	PLgel 5um MiniMIX-D Guard 50 x 4.6 mm
PL1510-1520	PLgel 5um Guard 50 x 4.6 mm
PL1510-3515	PLgel 5um 50A, 150 x 4.6 mm
PL1510-5100	PLgel 10um MiniMIX-B 250 x 4.6 mm
PL1510-5200	PLgel 20um MiniMIX-A 250 x 4.6 mm
PL1510-5300	PLgel 3um MiniMIX-E 250 x 4.6 mm
PL1510-5320	PLgel 3um 100A 250 x 4.6 mm
PL1510-5500	PLgel 5um MiniMIX-C 250 x 4.6 mm
PL1510-5504	PLgel 5um MiniMIX-D 250 x 4. mm
PL2010-0700	Contains:PL1110-6500 PLgel 5um MIXED-C 300 x 7.5mm
PL1113-1300	ResiPore Guard 50 x 7.5 mm
PL1113-1320	OligoPore Guard 50 x 7.5 mm
PL1113-1325	MesoPore Guard 50 x 7.5 mm
PL1113-1500	PolyPore Guard 50 x 7.5 mm
PL1113-6300	ResiPore 300 x 7.5 mm
PL1113-6325	MesoPore 300 x 7.5 mm
PL1113-6500	PolyPore 300 x 7.5 mm
PL1113-6520	OligoPore 300 x 7.5 mm
PL1513-1300	ResiPore Guard 50 x 4.6 mm
PL1513-1320	OligoPore Guard 50 x 4.6 mm
PL1513-1500	PolyPore Guard 50 x 4.6 mm
PL1513-5300	ResiPore 250 x 4.6 mm
PL1513-5325	MesoPore 250 x 4.6 mm
PL1513-5500	PolyPore 250 x 4.6 mm
PL1513-5520	OligoPore 250 x 4.6 mm
PL1913-5300	ResiPore 2.1 x 250 mm
PL1913-5325	MesoPore 2.1 x 250 mm
PL1913-5500	PolyPore 2.1 x 250 mm
PL1913-5520	OligoPore 2.1 x 250 mm
PL1010-2504	PLgel 5 µm MIXED-D, 100 x 10 mm
PL1013-2100	PL Rapide H 100 x 10 mm
PL1110-6260	PLgel 20 µm 10^6Å, 300 x 7.5 mm
PL1510-5520	PLgel 5um 100A 250 x 4.6 mm
PL1510-5525	PLgel 5um 500A 250 x 4.6 mm
PL1510-5530	PLgel 5um 10E3A 250 x 4.6 mm
PL1510-5540	PLgel 5um 10E4A 250 x 4.6 mm

1.3 Details of the supplier of the safety data sheet

Agilent Technologies Manufacturing GmbH & Co. KG
Hewlett-Packard-Str. 8
76337 Waldbronn
Germany
0800 603 1000

e-mail address of person responsible for this SDS : pdl-msds_author@agilent.com

1.4 Emergency telephone number

Emergency telephone number (with hours of operation) : CHEMTREC®: +(44)-870-8200418

SECTION 2: Hazards identification

This article, when used under reasonable conditions and in accordance with the directions for use, should not present a health hazard. The substance or mixture is encapsulated in the article. Only if released due to use or processing of the article in a manner not in accordance with the product's directions for use it may present potential health and safety hazards.

2.1 Classification of the substance or mixture

Product definition : Mixture (encapsulated in article)

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

H225	FLAMMABLE LIQUIDS	Category 2
H332	ACUTE TOXICITY (inhalation)	Category 4
H373	SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE	Category 2
H304	ASPIRATION HAZARD	Category 1

Ingredients of unknown toxicity : Percentage of the mixture consisting of ingredient(s) of unknown acute inhalation toxicity: 30 - 60%

Ingredients of unknown ecotoxicity : Contains 37% of components with unknown hazards to the aquatic environment

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

Hazard pictograms :

Signal word : Danger

Hazard statements :
H225 - Highly flammable liquid and vapour.
H304 - May be fatal if swallowed and enters airways.
H332 - Harmful if inhaled.
H373 - May cause damage to organs through prolonged or repeated exposure.

Precautionary statements

Prevention :
P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260 - Do not breathe vapour.

Response :
P314 - Get medical advice/attention if you feel unwell.
P301 + P310, P331 - IF SWALLOWED: Immediately call a POISON CENTER or doctor. Do NOT induce vomiting.

Storage : Not applicable.

Disposal : P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

Hazardous ingredients : - ethylbenzene

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.

Special packaging requirements

Tactile warning of danger : Not applicable.

SECTION 2: Hazards identification

2.3 Other hazards

Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII : This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

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

SECTION 3: Composition/information on ingredients

This article, when used under reasonable conditions and in accordance with the directions for use, should not present a health hazard. The substance or mixture is encapsulated in the article. Only if released due to use or processing of the article in a manner not in accordance with the product's directions for use it may present potential health and safety hazards.

3.1 Substances

: Mixture (encapsulated in article)

Product/ingredient name	Identifiers	%	Regulation (EC) No. 1272/2008 [CLP]	Type
ethylbenzene	EC: 202-849-4 CAS: 100-41-4 Index: 601-023-00-4	≥50 - ≤69	Flam. Liq. 2, H225 Acute Tox. 4, H332 STOT RE 2, H373 (hearing organs) Asp. Tox. 1, H304 **See Section 16 for the full text of the H statements declared above.**	[1] [2]

There are no additional ingredients present which, within the current knowledge of the supplier, are classified and contribute to the classification of the substance 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. Continue to rinse for at least 10 minutes. Get medical attention following exposure or if feeling unwell.

Inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. 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 following exposure or if feeling unwell. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

SECTION 4: First aid measures

Skin contact : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention following exposure or if feeling unwell. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion : Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. 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. Aspiration hazard if swallowed. Can enter lungs and cause damage. Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

4.2 Most important symptoms and effects, both acute and delayed

Potential acute health effects

Eye contact : No known significant effects or critical hazards.

Inhalation : Harmful if inhaled.

Skin contact : No known significant effects or critical hazards.

Ingestion : May be fatal if swallowed and enters airways.

Over-exposure signs/symptoms

Eye contact : No specific data.

Inhalation : No specific data.

Skin contact : No specific data.

Ingestion : Adverse symptoms may include the following:
nausea or vomiting

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 dry chemical, CO_2, water spray (fog) or foam.

Unsuitable extinguishing media : Do not use water jet.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture : Highly flammable liquid and vapour. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion.

Hazardous combustion products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide

5.3 Advice for firefighters

SECTION 5: Firefighting measures

Special precautions 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. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

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. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. 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

Methods for cleaning up : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. 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.

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

7.1 Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8). Do not breathe vapour or mist. Do not swallow. Avoid contact with eyes, skin and clothing. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.

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. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities

Storage :

SECTION 7: Handling and storage

Store in accordance with local regulations. Store in a segregated and approved area. 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. Store locked up. Eliminate all ignition sources. Separate from oxidising materials. 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.

Seveso Directive - Reporting thresholds

Danger criteria

Category	Notification and MAPP threshold	Safety report threshold
P5c	5000 tonne	50000 tonne

7.3 Specific end use(s)

Recommendations : Industrial applications, Professional applications.

Industrial sector specific solutions : Not available.

SECTION 8: Exposure controls/personal protection

Since the hazardous ingredient in this article is encapsulated, the risk of exposure by inhalation, ingestion, skin contact and eyes contact is minimum.

8.1 Control parameters

Occupational exposure limits

Product/ingredient name	Exposure limit values
ethylbenzene	**NAOSH (Ireland, 1/2020). Absorbed through skin.** OELV-8hr: 100 ppm 8 hours. OELV-8hr: 442 mg/m³ 8 hours. OELV-15min: 200 ppm 15 minutes. OELV-15min: 884 mg/m³ 15 minutes.

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

Product/ingredient name	Type	Exposure	Value	Population	Effects
ethylbenzene	DNEL	Long term Oral	1.6 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	15 mg/m³	General population	Systemic
	DNEL	Long term Inhalation	77 mg/m³	Workers	Systemic
	DNEL	Long term Dermal	180 mg/kg bw/day	Workers	Systemic
	DNEL	Short term Inhalation	293 mg/m³	Workers	Local
	DMEL	Long term	442 mg/m³	Workers	Local

SECTION 8: Exposure controls/personal protection

	DMEL	Inhalation Short term Inhalation	884 mg/m³	Workers	Systemic

PNECs

No PNECs available

8.2 Exposure controls

Appropriate engineering controls : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapour or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

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. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

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. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves. Refer to European Standard EN 1149 for further information on material and design requirements and test methods.

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. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

9.1 Information on basic physical and chemical properties

Appearance

Physical state : Solid. (containing flammable liquid)

Colour : White.

SECTION 9: Physical and chemical properties

Odour : Aromatic.

Odour threshold : Not available.

Melting point/freezing point : -95°C

Initial boiling point and boiling range : 136°C (276.8°F)

Flammability (solid, gas) : Contains: Flammable liquid

Upper/lower flammability or explosive limits : Lower: 0.8%
Upper: 6.7%

Flash point : Closed cup: 21°C (69.8°F)

Auto-ignition temperature : 432.22°C (810°F)

Decomposition temperature : Not available.

pH : Not available.

Viscosity : Not available.

Solubility(ies) : Mobile phase: Very slightly soluble in the following materials: water
Stationary phase: Insoluble

Partition coefficient: n-octanol/water : Not applicable.

Vapour pressure :

Ingredient name	Vapour Pressure at 20˚C			Vapour pressure at 50˚C		
	mm Hg	kPa	Method	mm Hg	kPa	Method
ethylbenzene	9.3	1.2				

Evaporation rate : Not available.

Relative density : 0.9

Density : 0.9 g/cm³ [20°C (68°F)]

Vapour density : Not available.

Explosive properties : Not available.

Oxidising properties : Not available.

Particle characteristics

Median particle size : Not applicable.

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 : Avoid all possible sources of ignition (spark or flame). Do not pressurise, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.

10.5 Incompatible materials : Reactive or incompatible with the following materials:
oxidising materials

SECTION 10: Stability and reactivity

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
ethylbenzene	LD50 Dermal LD50 Oral	Rabbit Rat	>5000 mg/kg 3500 mg/kg	- -

Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapours) (mg/l)	Inhalation (dusts and mists) (mg/l)
PLgel in ethylbenzene - less than 10 ml ethylbenzene	N/A 3500	N/A N/A	N/A N/A	11 11	N/A N/A

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
ethylbenzene	Eyes - Severe irritant Skin - Mild irritant	Rabbit Rabbit	- -	500 mg 24 hours 15 mg	- -

Skin : Repeated exposure may cause skin dryness or cracking.

Sensitiser

Conclusion/Summary : Not available.

Mutagenicity

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : Not available.

Reproductive toxicity

Conclusion/Summary : Not available.

Teratogenicity

Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Product/ingredient name	Category	Route of exposure	Target organs
ethylbenzene	Category 2	-	hearing organs

Aspiration hazard

Product/ingredient name	Result
PLgel in ethylbenzene - less than 10 ml ethylbenzene	ASPIRATION HAZARD - Category 1 ASPIRATION HAZARD - Category 1

Information on likely routes of exposure : Routes of entry anticipated: Oral, Dermal, Inhalation.

Potential acute health effects

Inhalation : Harmful if inhaled.

Ingestion : May be fatal if swallowed and enters airways.

Skin contact : No known significant effects or critical hazards.

SECTION 11: Toxicological information

Eye contact : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Inhalation : No specific data.

Ingestion : Adverse symptoms may include the following:
nausea or vomiting

Skin contact : No specific data.

Eye contact : No specific data.

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

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

General : May cause damage to organs through prolonged or repeated exposure.

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.

SECTION 12: Ecological information

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
ethylbenzene	Acute EC50 4900 µg/l Marine water	Algae - Skeletonema costatum	72 hours
	Acute EC50 7700 µg/l Marine water	Algae - Skeletonema costatum	96 hours
	Acute EC50 6.53 mg/l Marine water	Crustaceans - Artemia sp. - Nauplii	48 hours
	Acute EC50 2.93 mg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
	Acute LC50 4200 µg/l Fresh water	Fish - Oncorhynchus mykiss	96 hours

12.2 Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
ethylbenzene	ISO	70 to 80 % - Readily - 28 days	-	Activated sludge

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
ethylbenzene	-	-	Readily

12.3 Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
ethylbenzene	3.6	-	low

12.4 Mobility in soil

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

SECTION 12: Ecological information

Mobility : Not available.

12.5 Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

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

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Methods of disposal : The generation of waste should be avoided or minimised wherever possible. 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. 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 : The classification of the product may meet the criteria for a hazardous waste.

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. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapour from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

This Safety Data Sheet is written based on the encapsulated substance or mixture in this article. Since the hazardous ingredient is encapsulated, the risk of exposure by inhalation, ingestion, skin contact and eyes contact is minimum.

	ADR/RID	IMDG	IATA
14.1 UN number	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.

Additional information

Remarks : Special provisions
ADR: 216
IATA: A46
IMDG: 216

SECTION 14: Transport 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.

14.7 Transport in bulk according to IMO instruments : Not available.

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

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

Ingredient name	EC number	CAS number	Restriction
PLgel in ethylbenzene - less than 10 ml ethylbenzene	 202-849-4	 100-41-4	3 3

Label : Not applicable.

Other EU regulations

Ozone depleting substances (1005/2009/EU)

Not listed.

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

Not listed.

Persistent Organic Pollutants

Not listed.

Seveso Directive

This product is controlled under the Seveso Directive.

Danger criteria

Category
P5c

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

SECTION 15: Regulatory information

Inventory list

Australia	:	All components are listed or exempted.
Canada	:	All components are listed or exempted.
China	:	All components are listed or exempted.
Europe	:	All components are listed or exempted.
Japan	:	**Japan inventory (CSCL)**: All components are listed or exempted. **Japan inventory (ISHL)**: All components are listed or exempted.
New Zealand	:	All components are listed or exempted.
Philippines	:	All components are listed or exempted.
Republic of Korea	:	All components are listed or exempted.
Taiwan	:	All components are listed or exempted.
Thailand	:	Not determined.
Turkey	:	All components are listed or exempted.
United States	:	All components are active or exempted.
Viet Nam	:	All components are listed or exempted.

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

SECTION 16: Other information

Indicates information that has changed from previously issued version.

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
N/A = Not available
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
Flam. Liq. 2, H225 Acute Tox. 4, H332 STOT RE 2, H373 Asp. Tox. 1, H304	On basis of test data Calculation method Calculation method Expert judgment

Full text of abbreviated H statements

H225	Highly flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H332	Harmful if inhaled.
H373	May cause damage to organs through prolonged or repeated exposure.

Full text of classifications [CLP/GHS]

Acute Tox. 4	ACUTE TOXICITY - Category 4
Asp. Tox. 1	ASPIRATION HAZARD - Category 1
Flam. Liq. 2	FLAMMABLE LIQUIDS - Category 2
STOT RE 2	SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 2

Date of issue/ Date of revision : 18/07/2022

Date of previous issue : No previous validation

SECTION 16: Other information

Version : 1

Notice to reader

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