

## Norgen PCR Purification Kit

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

<b>Product name</b>	: Norgen PCR Purification Kit	<b>Manufacturer</b>	: Norgen Biotek Corp. 344 Merritt St. St. Catharines, Ontario Canada L2T 1K6 Tel: (905) 227-8848 Fax: (905) 227-1061
<b>Chemical product name</b>	: Not applicable.	<b>Supplier</b>	: Norgen Biotek Corp. 344 Merritt St. St. Catharines, Ontario Canada L2T 1K6 Tel: (905) 227-8848 Fax: (905) 227-1061
<b>Synonyms</b>	: Not available.	<b>Emergency telephone number</b>	: Canada: CANUTEC-1-613-996-6666 US: CHEMTREC-1-800-424-9300
<b>Chemical Formula</b>	: Not applicable.		
<b>Material Uses</b>	: Binding solution.		
<b>Catalog#</b>			
<b>P/N 14401;</b>			
<b>Not available.</b>			

### 2. Composition/information on ingredients

**Substance/Preparation** : Preparation.

Chemical name	CAS No.	%	EC Number	Classification
<b>United States</b>				
1) Guanidinium Hydrochloride	50-01-1	1-20	200-002-3	Toxic Irritant
<b>Germany</b>				
1) Guanidinium Hydrochloride	50-01-1	1-20	200-002-3	Xn; R22 Xi; R36/38
See Section 16 for the full text of the R Phrases declared above				
<b>United Kingdom (UK)</b>				
1) Guanidinium Hydrochloride	50-01-1	1-20	200-002-3	Xn; R22 Xi; R36/38
<b>Japan</b>				
1) Guanidinium Hydrochloride	50-01-1	1-20	Listed (METI). (2)-1773	Not available.
<b>Canada</b>				
1) Guanidinium Hydrochloride	50-01-1	1-20	200-002-3	D1B D2B

This material is classified as hazardous under the United States OSHA regulation, the European DSD/DPD Directives and several countries specific requirements, in Japan and under the Canadian WHMIS regulation.

See Section 8 for Exposure Limits.  
See Section 11 for Toxicological Data.  
See Section 14 for UN Number.

### 3. Hazards identification

<b>Physical State and Appearance</b>	: Liquid. (Clear.)
<b>Emergency Overview</b>	: CAUTION! MAY BE HARMFUL IF SWALLOWED. MAY CAUSE EYE AND SKIN IRRITATION. Avoid contact with eyes, skin and clothing. Do not ingest. Wash thoroughly after handling.
<b>Routes of Entry</b>	: Dermal contact. Eye contact. Inhalation. Ingestion.
The preparation is classified as dangerous according to Directive 1999/45/EC and its amendments.	
<b>Classification in Europe</b>	: Xn; R22 Xi; R36/38

# Norgen PCR Purification Kit

**Human health hazards** : Harmful if swallowed.  
Irritating to eyes and skin.

## Effects and symptoms

**Ingestion** : Hazardous in case of ingestion.

**Skin Contact** : Hazardous in case of skin contact (irritant). Non-sensitizer for skin. Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering.

**Eye Contact** : Hazardous in case of eye contact (irritant).

**Aggravating conditions** : Repeated or prolonged exposure is not known to aggravate medical condition.

## 4. First aid measures

### First-Aid measures

**Inhalation** : If inhaled, remove to fresh air. Get medical attention if symptoms appear.

**Ingestion** : Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately.

**Skin Contact** : In case of contact, immediately flush skin with plenty of water. Cover the irritated skin with an emollient. Remove contaminated clothing and shoes. Cold water may be used. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention.

**Eye Contact** : Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention.

**Notes to physician** : No specific antidote. Medical staff must contact Poison Information Center.

**Protection of first-aiders** : Not available.

## 5. Fire-fighting measures

### Extinguishing Media

**Suitable** : Use extinguishing media suitable for surrounding materials.

**Unsuitable.** : Not applicable.

**Unusual fire/explosion hazards** : Not applicable.

**Hazardous thermal decomposition products** : Not applicable.

**Special fire-fighting procedures** : Fire-fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear.

**Protection of fire-fighters** : Not applicable.

## 6. Accidental release measures

**Personal precautions** : Splash goggles. Full suit. Boots. Gloves. Suggested protective clothing might not be sufficient; consult a specialist before handling this product.

**Environmental Precautions and Clean-up Methods** : Absorb with an inert material and put the spilled material in an appropriate waste disposal. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.

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

## 7. Handling and storage

**Handling** : Avoid contact with eyes. Wear suitable protective clothing. If you feel unwell, seek medical attention and show the label when possible. Keep away from incompatibles such as oxidizing agents.

**Storage** : Keep container tightly closed. Keep container in a cool, well-ventilated area. Preferred storage temperature is 4°C. For long-term storage keep at -20°C.

**Germany - Storage Code** : Not available.

## 8. Exposure controls/personal protection

**Engineering measures** : Good general ventilation should be sufficient to control airborne levels.

**Hygiene measures** : Wash hands, forearms, and face thoroughly after handling compounds and before eating, smoking, using lavatory, and at the end of day.

### Ingredient Name Occupational Exposure Limits

#### United States

1) None assigned.

#### Germany

1) None assigned.

#### United Kingdom (UK)

1) None assigned.

#### Japan

1) None assigned.

#### Canada

1) None assigned.

**Recommended monitoring procedures** : Not available.

**Personal protective equipment**

**Respiratory system** : Wear appropriate respirator when ventilation is inadequate.  
**Skin and body** : Lab coat.  
**Hands** : Gloves.  
**Eyes** : Splash goggles.

## 9. Physical and chemical properties

**Physical state** : Liquid. (Clear.)  
**Color** : Colorless.  
**Odor** : Odorless.  
**pH** : Neutral.  
**Boiling Point** : The lowest known value is 99.9°C (211.8°F) (Water).  
**Melting Point** : May start to solidify at -0.1°C (31.8°F) based on data for: Water.  
**Flash point** : Not applicable.  
**Explosive properties** : Risks of explosion of the product in presence of mechanical impact: Not applicable.  
 Risks of explosion of the product in presence of static discharge: Not applicable.  
**Vapor Pressure** : The highest known value is 2.3 kPa (17.5 mm Hg) (at 20°C) (Water).  
**Density** : The only known value is 1 (Water = 1) (Water).  
**Solubility** : Miscible in water.  
**Vapor Density** : The highest known value is 0.62 (Air = 1) (Water).

## 10. Stability and reactivity

**Stability** : The product is stable at room temperature.  
**Conditions to avoid** : The product is unstable at a temperature above 37°C. See Section 7 for storage conditions.  
**Materials to avoid** : Reactive with oxidizing agents.  
**Hazardous Decomposition Products** : Not applicable.

## 11. Toxicological information

**Acute toxicity**

<u>Ingredient Name</u>	<u>Test</u>	<u>Result</u>	<u>Route</u>	<u>Species</u>
Guanidinium Hydrochloride	LD50	475 mg/kg	Oral	Rat
	LD50	571 mg/kg	Oral	Mouse

**Skin irritation** : Hazardous in case of skin contact (irritant).

**Eye irritation** : Hazardous in case of eye contact (irritant).

**Sensitization** : Non-sensitizer for skin.

**Chronic toxicity** : Repeated or prolonged exposure is not known to aggravate medical condition.

**Carcinogenic Effects** : Not classified or listed by IARC, NTP, OSHA, EU and ACGIH.

**Mutagenic Effects** : Not available.

**Reproduction toxicity** : Not available.

**Developmental and Teratogenic Effects** : Not available.

**To the best of our knowledge, the toxicological properties of this substance have not been investigated thoroughly.**

## 12. Ecological information

**Ecotoxicity Data**

<u>Ingredient Name</u>	<u>Species</u>	<u>Period</u>	<u>Result</u>
<b>Mobility</b>			: Not available.
<b>Persistence/degradability</b>			: Not available.
<b>Bioaccumulative potential</b>			: Not available.
<b>Soil/Water Partition Coefficient (K<sub>ow</sub>)</b>			: Not available.

## 13. Disposal considerations

**Methods of disposal** : Waste must be disposed of in accordance with federal, state and local environmental control regulations.  
**Waste Classification** : Not applicable.  
**European Waste Catalogue (EWC)** : Not available.  
**Hazardous Waste** : The classification of the product may meet the criteria for a hazardous waste

## 14. Transport information

### International transport regulations

Regulatory Information	Classification
DOT (United States)	Not regulated.
ADR/RID (Europe)	Not regulated.
ADN (Europe)	Not regulated.
Road Law (Japan)	Not regulated.
TDG (Canada)	Not regulated.
IATA-DGR	Not regulated.
IMDG	Not regulated.

## 15. Regulatory information

- HCS (United States)** : Toxic  
Irritating material
- U.S. Federal Regulations** : TSCA 8(b) inventory: All components listed.  
SARA 302/304/311/312 extremely hazardous substances: No products were found.  
SARA 302/304 emergency planning and notification: No products were found.  
SARA 302/304/311/312 hazardous chemicals: No products were found.  
SARA 311/312 MSDS distribution - chemical inventory - hazard identification: No products were found.  
Clean Water Act (CWA) 307: No products were found.  
Clean Water Act (CWA) 311: No products were found.  
Clean air act (CAA) 112 accidental release prevention: No products were found.  
Clean air act (CAA) 112 regulated flammable substances: No products were found.  
Clean air act (CAA) 112 regulated toxic substances: No products were found.

### SARA 313

- Form R - Reporting Requirements** : No products were found.
- Supplier Notification** : No products were found.

- State Regulations** : No products were found.  
California prop. 65: No products were found.

### EU Regulations

- Product Use** : Classification and labeling have been performed according to EU directives 67/548/EEC, 1999/45/EC including amendments and the intended use.  
- Industrial applications.

### National regulations

#### Germany

- Employment restrictions in accordance with § 15b of the Hazardous Substance Ordinance** : Yes.
- Hazardous Incident Ordinance** : No.
- Ordinance on Combustible Liquids** : Class: Omitted
- Hazard class for water (GWK)** : 1

#### United Kingdom (UK)

- VOC Content (Retail Use)** : Not applicable.
- VOC Content (Industrial Use)** : Contains 0 wt% VOC.

- Japan Control Laws** : Not available.

- WHMIS (Canada)** : D-1B: Material causing immediate and serious toxic effects (TOXIC).  
D-2B: Material causing other toxic effects (TOXIC).

This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all the information required by the CPR.

## 16. Other information

**US Label Requirements** : MAY BE HARMFUL IF SWALLOWED.  
MAY CAUSE EYE AND SKIN IRRITATION.

**Hazardous Material Information System (U.S.A.)**

Health	2
Fire Hazard	0
Reactivity	0
Personal Protection	C

**National Fire Protection Association (U.S.A.)**



**Europe Label**

:



**Safety phrases**

: S2- Keep out of the reach of children.  
S46- If swallowed, seek medical advice immediately and show this container or label.

**Japan Label**

: Not available.

**WHMIS Label**

:



**HISTORY**

**Date of printing** : 2004-11-12.  
**Date of issue** : 2004-11-12.  
**Date of Previous Issue** : No Previous Validation.  
**Version** : 1  
**Prepared by** : Kemika XXI inc.

**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.*

## Norgen PCR Purification Kit

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

**Product name** : Norgen PCR Purification Kit

**Manufacturer** : Norgen Biotek Corp.  
344 Merritt St.  
St. Catharines, Ontario  
Canada L2T 1K6  
Tel: (905) 227-8848  
Fax: (905) 227-1061

**Chemical product name** : Not applicable.

**Supplier** : Norgen Biotek Corp.  
344 Merritt St.  
St. Catharines, Ontario  
Canada L2T 1K6  
Tel: (905) 227-8848  
Fax: (905) 227-1061

**Synonyms** : Not available.

**Chemical Formula** : Not applicable.

**Emergency telephone number** : Canada:  
CANUTEC-1-613-996-6666  
US:  
CHEMTREC-1-800-424-9300

**Material Uses** : Wash solution.

**Catalog#**  
**P/N 14402;**

### 2. Composition/information on ingredients

**Substance/Preparation** : Preparation.

Chemical name	CAS No.	%	EC Number	Classification
United States				
Germany				
United Kingdom (UK)				
Japan				
Canada				

This material is classified as non-hazardous under the United States OSHA regulation, the European DSD/DPD Directives and several countries specific requirements, in Japan and under the Canadian WHMIS regulation.

### 3. Hazards identification

**Physical State and Appearance** : Liquid. (Clear.)

**Emergency Overview** : No specific hazard.  
USE WITH CARE.  
Follow good industrial hygiene practice.

**Routes of Entry** : Dermal contact. Eye contact. Inhalation. Ingestion.  
The preparation is not classified as dangerous according to Directive 1999/45/EC and its amendments.

**Effects and symptoms**

**Skin Contact** : Slightly hazardous in case of skin contact (irritant). Non-sensitizer for skin.

**Eye Contact** : Slightly hazardous in case of eye contact (irritant).

**Aggravating conditions** : Repeated or prolonged exposure is not known to aggravate medical condition.

## 4. First aid measures

### First-Aid measures

- Inhalation** : If inhaled, remove to fresh air. Get medical attention if symptoms appear.
- Ingestion** : Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately.
- Skin Contact** : Wash with soap and water. Cover the irritated skin with an emollient. Get medical attention if irritation develops. Cold water may be used.
- Eye Contact** : Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention if irritation occurs.
- Notes to physician** : No specific antidote. Medical staff must contact Poison Information Center.
- Protection of first-aiders** : Not available.

## 5. Fire-fighting measures

### Extinguishing Media

- Suitable** : Use extinguishing media suitable for surrounding materials.
- Unsuitable.** : Not applicable.
- Unusual fire/explosion hazards** : Not applicable.
- Hazardous thermal decomposition products** : Not applicable.
- Special fire-fighting procedures** : Fire-fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear.
- Protection of fire-fighters** : Not applicable.

## 6. Accidental release measures

- Personal precautions** : Splash goggles. Full suit. Boots. Gloves. Suggested protective clothing might not be sufficient; consult a specialist before handling this product.
- Environmental Precautions and Clean-up Methods** : Absorb with an inert material and put the spilled material in an appropriate waste disposal. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.

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

## 7. Handling and storage

- Handling** : Avoid contact with eyes. Wear suitable protective clothing. If you feel unwell, seek medical attention and show the label when possible. Keep away from incompatibles such as oxidizing agents.
- Storage** : Keep container tightly closed. Keep container in a cool, well-ventilated area. Preferred storage temperature is 4°C. For long-term storage keep at -20°C.
- Germany - Storage Code** : Not available.

## 8. Exposure controls/personal protection

- Engineering measures** : Good general ventilation should be sufficient to control airborne levels.
- Hygiene measures** : Wash hands after handling compounds and before eating, smoking, using lavatory, and at the end of day.

<u>Ingredient Name</u>	<u>Occupational Exposure Limits</u>
<b>United States</b>	1) None assigned.
<b>Germany</b>	1) None assigned.
<b>United Kingdom (UK)</b>	1) None assigned.
<b>Japan</b>	1) None assigned.
<b>Canada</b>	1) None assigned.

- Recommended monitoring procedures** : Not available.

### Personal protective equipment

- Skin and body** : Lab coat.
- Eyes** : Safety glasses.

## 9. Physical and chemical properties

<b>Physical state</b>	: Liquid. (Clear.)
<b>Color</b>	: Colorless.
<b>Odor</b>	: Odorless.
<b>pH</b>	: 8.5 [Basic.]
<b>Boiling Point</b>	: The lowest known value is 99.9°C (211.8°F) (Water).
<b>Melting Point</b>	: May start to solidify at -0.1°C (31.8°F) based on data for: Water.
<b>Flash point</b>	: Not applicable.
<b>Explosive properties</b>	: Risks of explosion of the product in presence of mechanical impact: Not applicable. Risks of explosion of the product in presence of static discharge: Not applicable.
<b>Vapor Pressure</b>	: The highest known value is 2.3 kPa (17.5 mm Hg) (at 20°C) (Water).
<b>Density</b>	: The only known value is 1 (Water = 1) (Water).
<b>Solubility</b>	: Miscible in water.
<b>Vapor Density</b>	: The highest known value is 0.62 (Air = 1) (Water).

## 10. Stability and reactivity

<b>Stability</b>	: The product is stable at room temperature.
<b>Conditions to avoid</b>	: The product is unstable at a temperature above 37°C. See Section 7 for storage conditions.
<b>Materials to avoid</b>	: Reactive with oxidizing agents.
<b>Hazardous Decomposition Products</b>	: Not applicable.

## 11. Toxicological information

### Acute toxicity

<u>Ingredient Name</u>	<u>Test</u>	<u>Result</u>	<u>Route</u>	<u>Species</u>
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**Skin irritation** : Slightly hazardous in case of skin contact (irritant).

**Eye irritation** : Slightly hazardous in case of eye contact (irritant).

**Sensitization** : Non-sensitizer for skin.

### Chronic toxicity

: Repeated or prolonged exposure is not known to aggravate medical condition.

**Carcinogenic Effects** : Not classified or listed by IARC, NTP, OSHA, EU and ACGIH.

**Mutagenic Effects** : Not available.

**Reproduction toxicity** : Not available.

**Developmental and Teratogenic Effects** : Not available.

**To the best of our knowledge, the toxicological properties of this substance have not been investigated thoroughly.**

## 12. Ecological information

### Ecotoxicity Data

<u>Ingredient Name</u>	<u>Species</u>	<u>Period</u>	<u>Result</u>
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**Mobility** : Not available.

**Persistence/degradability** : Not available.

**Bioaccumulative potential** : Not available.

**Soil/Water Partition Coefficient (K<sub>ow</sub>)** : Not available.

## 13. Disposal considerations

<b>Methods of disposal</b>	: Waste must be disposed of in accordance with federal, state and local environmental control regulations.
<b>Waste Classification</b>	: Not applicable.
<b>European Waste Catalogue (EWC)</b>	: Not available.
<b>Hazardous Waste</b>	: To present knowledge of the supplier, this product is not regarded as hazardous waste as defined by EU Directive 91/689/EC.

## 14. Transport information

### International transport regulations



<b>Regulatory Information</b>	<b>Classification</b>
<b>DOT (United States)</b>	Not regulated.
<b>ADR/RID (Europe)</b>	Not regulated.
<b>ADN (Europe)</b>	Not regulated.
<b>Road Law (Japan)</b>	Not regulated.
<b>TDG (Canada)</b>	Not regulated.
<b>IATA-DGR</b>	Not regulated.
<b>IMDG</b>	Not regulated.

## 15. Regulatory information

**HCS (United States)** : Not controlled under the HCS (United States).  
**U.S. Federal Regulations** : TSCA 8(b) inventory: All components listed.  
SARA 302/304/311/312 extremely hazardous substances: No products were found.  
SARA 302/304 emergency planning and notification: No products were found.  
SARA 302/304/311/312 hazardous chemicals: No products were found.  
SARA 311/312 MSDS distribution - chemical inventory - hazard identification: No products were found.  
Clean Water Act (CWA) 307: No products were found.  
Clean Water Act (CWA) 311: No products were found.  
Clean air act (CAA) 112 accidental release prevention: No products were found.  
Clean air act (CAA) 112 regulated flammable substances: No products were found.  
Clean air act (CAA) 112 regulated toxic substances: No products were found.

**SARA 313**  
**Form R - Reporting Requirements** : No products were found.  
**Supplier Notification** : No products were found.

**State Regulations** :  
California prop. 65: No products were found.

**EU Regulations**  
**Product Use** : Classification and labeling have been performed according to EU directives 67/548/EEC, 1999/45/EC including amendments and the intended use.  
- Industrial applications.

**National regulations**  
**Germany**  
**Ordinance on Combustible Liquids** : Class: Omitted  
**Hazard class for water (GWK)** : 1  
**United Kingdom (UK)**  
**VOC Content (Retail Use)** : Not applicable.  
**VOC Content (Industrial Use)** : Contains 0 wt% VOC.

**Japan Control Laws** : Not applicable.

**WHMIS (Canada)** : Not controlled under WHMIS (Canada).  
DSL/NDSL: All components listed.

**This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all the information required by the CPR.**

## 16. Other information

**US Label Requirements** : USE WITH CARE.

**Hazardous Material  
Information System  
(U.S.A.)**

Health	0
Fire Hazard	0
Reactivity	0
Personal Protection	C

**National Fire  
Protection  
Association  
(U.S.A.)**



Europe Label :  
Japan Label : Not applicable.  
WHMIS Label :

**HISTORY**

Date of printing : 2004-11-12.  
Date of issue : 2004-11-12.  
Date of Previous Issue : No Previous Validation.  
Version : 1  
Prepared by : Kemika XXI inc.

**Notice to Reader**

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## Norgen PCR Purification Kit

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

**Product name** : Norgen PCR Purification Kit

**Manufacturer** : Norgen Biotek Corp.  
344 Merritt St.  
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Canada L2T 1K6  
Tel: (905) 227-8848  
Fax: (905) 227-1061

**Chemical product name** : Not applicable.

**Supplier** : Norgen Biotek Corp.  
344 Merritt St.  
St. Catharines, Ontario  
Canada L2T 1K6  
Tel: (905) 227-8848  
Fax: (905) 227-1061

**Synonyms** : Not available.

**Chemical Formula** : Not applicable.

**Emergency telephone number** : Canada:  
CANUTEC-1-613-996-6666  
US:  
CHEMTREC-1-800-424-9300

**Material Uses** : Elution buffer.

**Catalog#**  
**P/N 14403;**

### 2. Composition/information on ingredients

**Substance/Preparation** : Preparation.

Chemical name	CAS No.	%	EC Number	Classification
United States				
Germany				
United Kingdom (UK)				
Japan				
Canada				

This material is classified as non-hazardous under the United States OSHA regulation, the European DSD/DPD Directives and several countries specific requirements, in Japan and under the Canadian WHMIS regulation.

### 3. Hazards identification

**Physical State and Appearance** : Liquid. (Clear.)

**Emergency Overview** : No specific hazard.  
USE WITH CARE.  
Follow good industrial hygiene practice.

**Routes of Entry** : Dermal contact. Eye contact. Inhalation. Ingestion.  
The preparation is not classified as dangerous according to Directive 1999/45/EC and its amendments.

**Effects and symptoms**

**Skin Contact** : Slightly hazardous in case of skin contact (irritant). Non-sensitizer for skin.

**Eye Contact** : Slightly hazardous in case of eye contact (irritant).

**Aggravating conditions** : Repeated or prolonged exposure is not known to aggravate medical condition.

## 4. First aid measures

### First-Aid measures

- Inhalation** : If inhaled, remove to fresh air. Get medical attention if symptoms appear.
- Ingestion** : Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately.
- Skin Contact** : Wash with soap and water. Cover the irritated skin with an emollient. Get medical attention if irritation develops. Cold water may be used.
- Eye Contact** : Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention if irritation occurs.
- Notes to physician** : No specific antidote. Medical staff must contact Poison Information Center.
- Protection of first-aiders** : Not available.

## 5. Fire-fighting measures

### Extinguishing Media

- Suitable** : Use extinguishing media suitable for surrounding materials.
- Unsuitable.** : Not applicable.
- Unusual fire/explosion hazards** : Not applicable.
- Hazardous thermal decomposition products** : Not applicable.
- Special fire-fighting procedures** : Fire-fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear.
- Protection of fire-fighters** : Not applicable.

## 6. Accidental release measures

- Personal precautions** : Splash goggles. Full suit. Boots. Gloves. Suggested protective clothing might not be sufficient; consult a specialist before handling this product.
- Environmental Precautions and Clean-up Methods** : Absorb with an inert material and put the spilled material in an appropriate waste disposal. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.

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

## 7. Handling and storage

- Handling** : Avoid contact with eyes. Wear suitable protective clothing. If you feel unwell, seek medical attention and show the label when possible. Keep away from incompatibles such as oxidizing agents.
- Storage** : Keep container tightly closed. Keep container in a cool, well-ventilated area. Preferred storage temperature is 4°C. For long-term storage keep at -20°C.
- Germany - Storage Code** : Not available.

## 8. Exposure controls/personal protection

- Engineering measures** : Good general ventilation should be sufficient to control airborne levels.
- Hygiene measures** : Wash hands after handling compounds and before eating, smoking, using lavatory, and at the end of day.

<u>Ingredient Name</u>	<u>Occupational Exposure Limits</u>
<b>United States</b>	1) None assigned.
<b>Germany</b>	1) None assigned.
<b>United Kingdom (UK)</b>	1) None assigned.
<b>Japan</b>	1) None assigned.
<b>Canada</b>	1) None assigned.

- Recommended monitoring procedures** : Not available.

### Personal protective equipment

- Skin and body** : Lab coat.
- Eyes** : Safety glasses.

## 9. Physical and chemical properties

<b>Physical state</b>	: Liquid. (Clear.)
<b>Color</b>	: Colorless.
<b>Odor</b>	: Odorless.
<b>pH</b>	: 8.5 [Basic.]
<b>Boiling Point</b>	: The lowest known value is 99.9°C (211.8°F) (Water).
<b>Melting Point</b>	: May start to solidify at -0.1°C (31.8°F) based on data for: Water.
<b>Flash point</b>	: Not applicable.
<b>Explosive properties</b>	: Risks of explosion of the product in presence of mechanical impact: Not applicable. Risks of explosion of the product in presence of static discharge: Not applicable.
<b>Vapor Pressure</b>	: The highest known value is 2.3 kPa (17.5 mm Hg) (at 20°C) (Water).
<b>Density</b>	: The only known value is 1 (Water = 1) (Water).
<b>Solubility</b>	: Miscible in water.
<b>Vapor Density</b>	: The highest known value is 0.62 (Air = 1) (Water).

## 10. Stability and reactivity

<b>Stability</b>	: The product is stable at room temperature.
<b>Conditions to avoid</b>	: The product is unstable at a temperature above 37°C. See Section 7 for storage conditions.
<b>Materials to avoid</b>	: Reactive with oxidizing agents.
<b>Hazardous Decomposition Products</b>	: Not applicable.

## 11. Toxicological information

### Acute toxicity

<u>Ingredient Name</u>	<u>Test</u>	<u>Result</u>	<u>Route</u>	<u>Species</u>
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**Skin irritation** : Slightly hazardous in case of skin contact (irritant).

**Eye irritation** : Slightly hazardous in case of eye contact (irritant).

**Sensitization** : Non-sensitizer for skin.

### Chronic toxicity

: Repeated or prolonged exposure is not known to aggravate medical condition.

**Carcinogenic Effects** : Not classified or listed by IARC, NTP, OSHA, EU and ACGIH.

**Mutagenic Effects** : Not available.

**Reproduction toxicity** : Not available.

**Developmental and Teratogenic Effects** : Not available.

**To the best of our knowledge, the toxicological properties of this substance have not been investigated thoroughly.**

## 12. Ecological information

### Ecotoxicity Data

<u>Ingredient Name</u>	<u>Species</u>	<u>Period</u>	<u>Result</u>
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**Mobility** : Not available.

**Persistence/degradability** : Not available.

**Bioaccumulative potential** : Not available.

**Soil/Water Partition Coefficient (K<sub>ow</sub>)** : Not available.

## 13. Disposal considerations

<b>Methods of disposal</b>	: Waste must be disposed of in accordance with federal, state and local environmental control regulations.
<b>Waste Classification</b>	: Not applicable.
<b>European Waste Catalogue (EWC)</b>	: Not available.
<b>Hazardous Waste</b>	: To present knowledge of the supplier, this product is not regarded as hazardous waste as defined by EU Directive 91/689/EC.

## 14. Transport information

### International transport regulations

<b>Regulatory Information</b>	<b>Classification</b>
<b>DOT (United States)</b>	Not regulated.
<b>ADR/RID (Europe)</b>	Not regulated.
<b>ADN (Europe)</b>	Not regulated.
<b>Road Law (Japan)</b>	Not regulated.
<b>TDG (Canada)</b>	Not regulated.
<b>IATA-DGR</b>	Not regulated.
<b>IMDG</b>	Not regulated.

## 15. Regulatory information

**HCS (United States)** : Not controlled under the HCS (United States).  
**U.S. Federal Regulations** : TSCA 8(b) inventory: All components listed.  
SARA 302/304/311/312 extremely hazardous substances: No products were found.  
SARA 302/304 emergency planning and notification: No products were found.  
SARA 302/304/311/312 hazardous chemicals: No products were found.  
SARA 311/312 MSDS distribution - chemical inventory - hazard identification: No products were found.  
Clean Water Act (CWA) 307: No products were found.  
Clean Water Act (CWA) 311: No products were found.  
Clean air act (CAA) 112 accidental release prevention: No products were found.  
Clean air act (CAA) 112 regulated flammable substances: No products were found.  
Clean air act (CAA) 112 regulated toxic substances: No products were found.

### SARA 313

**Form R - Reporting Requirements** : No products were found.

**Supplier Notification** : No products were found.

**State Regulations** :  
California prop. 65: No products were found.

### EU Regulations

**Product Use** : Classification and labeling have been performed according to EU directives 67/548/EEC, 1999/45/EC including amendments and the intended use.  
- Industrial applications.

### National regulations

#### Germany

**Ordinance on Combustible Liquids** : Class: Omitted

**Hazard class for water (GWK)** : 1

#### United Kingdom (UK)

**VOC Content (Retail Use)** : Not applicable.

**VOC Content (Industrial Use)** : Contains 0 wt% VOC.

**Japan Control Laws** : Not applicable.

**WHMIS (Canada)** : Not controlled under WHMIS (Canada).  
DSL/NDSL: All components listed.

**This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all the information required by the CPR.**

## 16. Other information

**US Label Requirements** : USE WITH CARE.

**Hazardous Material  
Information System  
(U.S.A.)**

Health	0
Fire Hazard	0
Reactivity	0
Personal Protection	C

**National Fire  
Protection  
Association  
(U.S.A.)**



Europe Label :  
Japan Label : Not applicable.  
WHMIS Label :

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Prepared by : Kemika XXI inc.

**Notice to Reader**

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