

Safety Data Sheet

according to HPR, Schedule 1

Printing date 03/13/2018

Version CA-EN-Rev 1

Reviewed on 01/09/2018

Trade name: GRADIA SEPARATOR

(Contd. of page 1)

- **Precautionary statements**

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Wear protective gloves/protective clothing/eye protection/face protection.

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Store locked up.

Dispose of contents/container in accordance with local/regional/national/international regulations.

- **Additional information:**

22.5 % of the mixture consists of an ingredient or ingredients of unknown acute toxicity.

- **Classification system:**

- **NFPA ratings (scale 0 - 4)**



Health = 2

Fire = 3

Reactivity = 0

- **HMS-ratings (scale 0 - 4)**



Health = 2

Fire = 3

Reactivity = 0

3 Composition/Information on ingredients

- **Chemical characterization: Mixtures**

- **Description:** Mixture of the substances listed below with nonhazardous additions.

- **Dangerous components:**

isopropyl alcohol	60 - 100% w/w
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- **Additional information:**

If a substance is marked with **, then substance is a trade secret. This is allowed under OSHA's Hazard Communication Standard (HCS) as a trade secret and under GHS as Confidential Business Information (CBI).

4 First aid measures

- **Description of first aid measures**

- **General information:**

Immediately remove any clothing soiled by the product.

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

If symptoms persist consult doctor.

- **After inhalation:**

Supply fresh air; consult doctor in case of complaints.

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.

In case of unconsciousness place patient stably in side position for transportation.

- **After skin contact:**

Rinse with warm water.

If symptoms persist consult doctor.

(Contd. on page 3)

Safety Data Sheet

according to HPR, Schedule 1

Printing date 03/13/2018

Version CA-EN-Rev 1

Reviewed on 01/09/2018

Trade name: GRADIA SEPARATOR

(Contd. of page 2)

- **After eye contact:**
Protect unharmed eye.
Rinse opened eye for several minutes under running water. Then consult a doctor.
- **After swallowing:**
Rinse out mouth and then drink plenty of water.
If symptoms persist consult doctor.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed**
No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Firefighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** CO₂, sand, extinguishing powder. Do not use water.
- **For safety reasons unsuitable extinguishing agents:** Water
- **Special hazards arising from the substance or mixture**
Formation of toxic gases is possible during heating or in case of fire.
- **Advice for firefighters**
- **Protective equipment:**
Mouth respiratory protective device.
Wear self-contained respiratory protective device.
- **Additional information**
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Remove persons from danger area.
Keep away from ignition sources
Avoid contact with the eyes and skin.
Wear protective clothing.
- **Environmental precautions:**
Do not allow product to reach sewage system or any water course.
Inform respective authorities in case of seepage into water course or sewage system.
Do not allow to penetrate the ground/soil.
In case of seepage into the ground inform responsible authorities.
- **Methods and material for containment and cleaning up:**
Ensure adequate ventilation.
Absorb liquid components with liquid-binding material.
Dispose of the collected material according to regulations.
- **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

CA

(Contd. on page 4)

Safety Data Sheet

according to HPR, Schedule 1

Printing date 03/13/2018

Version CA-EN-Rev 1

Reviewed on 01/09/2018

Trade name: GRADIA SEPARATOR

(Contd. of page 3)

7 Handling and storage

- **Handling:**
- **Precautions for safe handling**
 - Observe instructions for use.
 - Ensure good ventilation/exhaustion at the workplace.
 - Prevent formation of aerosols.
 - Avoid contact with the eyes and skin.
 - Use caution when opening. The product is a highly flammable liquid and vapor; keep away from heat, hot surfaces, sparks, flames and other ignitions sources. Use with adequate ventilation. Do not ingest or breathe vapor. Personal Protective Equipment (PPE) such as gloves and safety eyewear are always to be worn. Check bottle with liquid before using. Make sure that upon removal of cap, the bottle opening has no obstructions. Some bottles may contain an insert (as a seal). The insert must be in the cap and not obstructing opening.
 - In case of contact, flush eyes with water for at least 15 minutes. Get prompt medical attention. If overcome by vapor, move to fresh air. If breathing is difficult, administer oxygen and seek medical attention. If swallowed, dilute by giving water to drink and seek medical attention. In case of contact with skin wash thoroughly with soap and water. Store securely. Store in a well ventilated place. Keep cool. Dispose of all waste according to local regulations.
- **Information about protection against explosions and fires:**
 - Keep ignition sources away - Do not smoke.
 - Protect from heat.
 - Protect against electrostatic charges.
 - Do not spray on a naked flame or any incandescent material.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**
 - Store in a cool location.
 - Store only in unopened original receptacles.
- **Information about storage in one common storage facility:** Store away from foodstuffs.
- **Further information about storage conditions:**
 - Observe instructions for use / storage.
 - Keep receptacle tightly sealed.
 - Store in cool, dry conditions in well sealed receptacles.
 - Protect from heat and direct sunlight.
 - Store in a cool place.
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/ Personal protection

- **Additional information about design of technical systems:** No further data; see item 7.

- **Control parameters**

- **Components with limit values that require monitoring at the workplace:**

isopropyl alcohol	
EL	Short-term value: 400 ppm Long-term value: 200 ppm
EV	Short-term value: 400 ppm Long-term value: 200 ppm

- **Additional information:** The lists that were valid during the creation were used as basis.

(Contd. on page 5)

CA

Safety Data Sheet

according to HPR, Schedule 1

Printing date 03/13/2018

Version CA-EN-Rev 1

Reviewed on 01/09/2018

Trade name: GRADIA SEPARATOR

(Contd. of page 4)

- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
The usual precautionary measures for handling chemicals should be followed.
Avoid contact with the eyes and skin.
Wash hands before breaks and at the end of work.
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing.
- **Breathing equipment:**



Suitable respiratory protective device recommended.

- **Protection of hands:**



Protective gloves

- **Material of gloves**
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
- **Penetration time of glove material**
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:**
Manufacturing sites:
Wear safety glasses with side shields (or goggles).
Distribution, Workplace, and Household Settings:
No special protective equipment required

9 Physical and chemical properties

- **Information on basic physical and chemical properties**

- **General Information**

- **Appearance:**

Form:	Liquid
Color:	Clear
Odor:	Characteristic
Odor threshold:	Not determined.

- **pH-value:** Not determined.

- **Change in condition**

Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	Undetermined.

- **Flash point:** 13 °C

- **Flammability (solid, gaseous):** Not applicable.

(Contd. on page 6)

CA

Safety Data Sheet

according to HPR, Schedule 1

Printing date 03/13/2018

Version CA-EN-Rev 1

Reviewed on 01/09/2018

Trade name: GRADIA SEPARATOR

(Contd. of page 5)

· Ignition temperature:	425 °C
· Decomposition temperature:	Not determined.
· Auto igniting:	Product is not self-igniting.
· Danger of explosion:	Product is not explosive. However, formation of explosive air/vapor mixtures are possible.
· Explosion limits:	
Lower:	2 Vol %
Upper:	12 Vol %
· Vapor pressure at 20 °C:	43 hPa
· Density:	Not determined.
· Relative density	Not determined.
· Vapor density	Not determined.
· Evaporation rate	Not determined.
· Solubility in / Miscibility with Water:	Insoluble.
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
· Solvent content:	
Organic solvents:	77.5 %
· Other information	No further relevant information available.

10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability** Stable at ambient temperature.
- **Thermal decomposition / conditions to be avoided:**
No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**
- **LD/LC50 values that are relevant for classification:** No further relevant information available.
- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** Irritating effect.
- **Sensitization:** No sensitizing effects known.

(Contd. on page 7)

CA

Safety Data Sheet

according to HPR, Schedule 1

Printing date 03/13/2018

Version CA-EN-Rev 1

Reviewed on 01/09/2018

Trade name: GRADIA SEPARATOR

(Contd. of page 6)

- **Additional toxicological information:**

The product shows the following dangers according to internally approved calculation methods for preparations:

Irritant

- **Carcinogenic categories**

- **IARC (International Agency for Research on Cancer)**

isopropyl alcohol	3
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- **NTP (National Toxicology Program)**

None of the ingredients is listed.

- **Carcinogenic categories' legend:**

IARC Group 1: The agent is carcinogenic to humans.

IARC Group 2A: The agent is probably carcinogenic to humans.

IARC Group 2B: The agent is possibly carcinogenic to humans.

IARC Group 3: The agent is not classifiable as to its carcinogenicity to humans.

IARC Group 4: The agent is probably not carcinogenic to humans.

NTP K: Known to be human carcinogen.

NTP R: Reasonably anticipated to be human carcinogen.

- **Repeated dose toxicity.** No further relevant information available.

- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**

No further relevant information available.

No further relevant information available.

12 Ecological information

- **Toxicity**

- **Aquatic toxicity:** No further relevant information available.

- **Persistence and degradability** No further relevant information available.

- **Behavior in environmental systems:**

- **Bioaccumulative potential** No further relevant information available.

- **Mobility in soil** No further relevant information available.

- **Additional ecological information:**

- **General notes:**

Water hazard class 3 (Self-assessment): extremely hazardous for water

Do not allow product to reach ground water, water course or sewage system, even in small quantities.

Danger to drinking water if even extremely small quantities leak into the ground.

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.

- **vPvB:** Not applicable.

- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**

- **Recommendation:**

Dispose of contents / container in accordance with local / regional / national / international regulations.

(Contd. on page 8)

CA

Safety Data Sheet

according to HPR, Schedule 1

Printing date 03/13/2018

Version CA-EN-Rev 1




Reviewed on 01/09/2018

Trade name: GRADIA SEPARATOR

(Contd. of page 7)

- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

- | | |
|--|--|
| <ul style="list-style-type: none"> · UN-Number · DOT, TDG, IMDG, IATA | <p>UN1219</p> |
| <ul style="list-style-type: none"> · UN proper shipping name · DOT · TDG · IMDG, IATA | <p>Isopropanol solution
1219 Isopropanol solution
ISOPROPYL ALCOHOL solution</p> |
| <ul style="list-style-type: none"> · Transport hazard class(es) · DOT | <p></p> |
| <ul style="list-style-type: none"> · Class · Label · TDG (Transport dangerous goods): | <p>3 Flammable liquids
3</p> |
| <ul style="list-style-type: none"> · Class · Label | <p></p> <p>3 (F1) Flammable liquids
3</p> |
| <ul style="list-style-type: none"> · IMDG, IATA | <p></p> |
| <ul style="list-style-type: none"> · Class · Label | <p>3 Flammable liquids
3</p> |
| <ul style="list-style-type: none"> · Packing group · DOT, TDG, IMDG, IATA | <p>II</p> |
| <ul style="list-style-type: none"> · Environmental hazards: · Marine pollutant: | <p>No</p> |
| <ul style="list-style-type: none"> · Special precautions for user · Danger code (Kemler): · Stowage Category | <p>Warning: Flammable liquids
33
B</p> |
| <ul style="list-style-type: none"> · Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code | <p>Not applicable.</p> |

(Contd. on page 9)

CA

Safety Data Sheet

according to HPR, Schedule 1

Printing date 03/13/2018

Version CA-EN-Rev 1

Reviewed on 01/09/2018

Trade name: GRADIA SEPARATOR

(Contd. of page 8)

- **Transport/Additional information:**

- **TDG**

- **Excepted quantities (EQ)** Code: E2
Maximum net quantity per inner packaging: 30 ml
Maximum net quantity per outer packaging: 500 ml

- **IMDG**

- **Limited quantities (LQ)** 1L
- **Excepted quantities (EQ)** Code: E2
Maximum net quantity per inner packaging: 30 ml
Maximum net quantity per outer packaging: 500 ml

- **UN "Model Regulation":** UN 1219 ISOPROPANOL SOLUTION, 3, II

15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **SARA (Superfund Amendments and Reauthorization Act)**

- **Section 355 (extremely hazardous substances):**

None of the ingredients is listed.

- **Section 313 (Specific toxic chemical listings):**

isopropyl alcohol

- **TSCA (Toxic Substances Control Act):**

All ingredients are listed.

- **Canadian substance listings:**

- **Canadian Domestic Substances List (DSL)**

All ingredients are listed.

- **Canadian Ingredient Disclosure list (limit 0.1%)**

None of the ingredients is listed.

- **Canadian Ingredient Disclosure list (limit 1%)**

isopropyl alcohol

- **GHS label elements**

The product is classified and labeled according to the Globally Harmonized System (GHS).

- **Hazard pictograms**



GHS02 GHS07

- **Signal word** Danger

- **Hazard-determining components of labeling:**

isopropyl alcohol

- **Hazard statements**

Highly flammable liquid and vapour.
Causes serious eye irritation.

(Contd. on page 10)

CA

Safety Data Sheet

according to HPR, Schedule 1

Printing date 03/13/2018

Version CA-EN-Rev 1

Reviewed on 01/09/2018

Trade name: GRADIA SEPARATOR

(Contd. of page 9)

May cause drowsiness or dizziness.

• **Precautionary statements**

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Wear protective gloves/protective clothing/eye protection/face protection.

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Store locked up.

Dispose of contents/container in accordance with local/regional/national/international regulations.

• **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

• **Department issuing SDS:** Regulatory Affairs

• **Contact:**

Regulatory Affairs

Telephone No. +1 (708) 597-0900

sds@gcamerica.com

• **Date of preparation / last revision** 03/13/2018 / -

• **Abbreviations and acronyms:**

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

HCS: Hazard Communication Standard (USA)

MSDS: Material Safety Data Sheet

SDS: Safety Data Sheet

ECHA: European Chemicals Agency

OSHA: Occupational Safety and Health Administration (USA)

LEL: Lower Explosive Limit

UEL: Upper Explosive Limit

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

• **Sources**

• Manufacturers' MSDSs/SDSs

• OSHA (<https://www.osha.gov/dts/chemicalsampling/toc/chmcas.html>)

• TOXNET (<http://toxnet.nlm.nih.gov/>)

• ECHA (<http://echa.europa.eu/>)

• EnviChem (www.echemportal.org)

• **Notes:**

CAS Registry Number is a Registered Trademark of the American Chemical Society.

CHEMTREC® is a registered service mark of the American Chemistry Council, Inc.

• * **Data compared to the previous version altered.** This version replaces all previous versions.

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(Contd. on page 11)

Safety Data Sheet
according to HPR, Schedule 1

Printing date 03/13/2018

Version CA-EN-Rev 1

Reviewed on 01/09/2018

Trade name: GRADIA SEPARATOR

our negligence or for fraudulent misrepresentation.

(Contd. of page 10)

CA