



Column Prep Desalting

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Revision date:

Version:

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

1.1. Product identifier

Product form : Mixture
Trade name : Column Prep Desalting

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

Use of the substance/mixture : Scientific research and development

1.3. Details of the supplier of the safety data sheet

Geno Technology, Inc./ G-Biosciences
9800 Page Avenue
63132-1429 Saint Louis - United States
T 800-628-7730 - F 314-991-1504
technical@GBiosciences.com - www.GBiosciences.com

1.4. Emergency telephone number

Emergency number : Chemtrec **1-800-424-9300** (USA/Canada), **+1-703-527-3887** (Intl)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS US classification

Not classified

2.2. Label elements

GHS US labeling

2.3. Other hazards

2.4. Unknown acute toxicity (GHS US)

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

Name : Column Prep Desalting

Full text of H-phrases: see section 16

3.2. Mixtures

SECTION 4: First aid measures

4.1. Description of first aid measures

4.2. Most important symptoms and effects, both acute and delayed

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

5.2. Special hazards arising from the substance or mixture

5.3. Advice for firefighters

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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

6.1.2. For emergency responders

6.2. Environmental precautions

No additional information available

6.3. Methods and material for containment and cleaning up

6.4. Reference to other sections

No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

7.2. Conditions for safe storage, including any incompatibilities

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

ethanol (64-17-5)

USA ACGIH

ACGIH OEL STEL

1000 ppm

8.2. Exposure controls

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | |
|---|---------------------|
| Physical state | : Liquid |
| Color | : No data available |
| Odor | : No data available |
| Odor threshold | : No data available |
| pH | : No data available |
| Relative evaporation rate (butyl acetate=1) | : No data available |
| Melting point | : No data available |
| Freezing point | : No data available |
| Boiling point | : No data available |
| Flash point | : No data available |
| Auto-ignition temperature | : No data available |
| Decomposition temperature | : No data available |
| Flammability | : No data available |
| Vapor pressure | : No data available |
| Relative vapor density at 20°C | : No data available |
| Relative density | : No data available |
| Solubility | : No data available |
| Partition coefficient n-octanol/water (Log Pow) | : No data available |
| Partition coefficient n-octanol/water (Log Kow) | : No data available |
| Viscosity, kinematic | : No data available |
| Viscosity, dynamic | : No data available |
| Explosive properties | : No data available |
| Oxidizing properties | : No data available |
| Explosion limits | : No data available |

9.2. Other information

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SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

No additional information available

10.3. Possibility of hazardous reactions

No additional information available

10.4. Conditions to avoid

No additional information available

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

No additional information available

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

| ethanol (64-17-5) | |
|-----------------------|--|
| LD50 oral rat | 10470 mg/kg body weight (OECD 401: Acute Oral Toxicity, Rat, Male / female, Experimental value, Oral, 14 day(s)) |
| LD50 dermal rabbit | > 15800 mg/kg body weight (Rabbit, Experimental value, Dermal) |
| LC50 Inhalation - Rat | 124.7 mg/l air (Equivalent or similar to OECD 403, 4 h, Rat, Male / female, Experimental value, Inhalation (vapours), 14 day(s)) |
| ATE CLP (oral) | 10470 mg/kg body weight |

| Deionized water (7732-18-5) | |
|-----------------------------|-------------------------|
| LD50 oral rat | 90000 mg/kg |
| ATE CLP (oral) | 90000 mg/kg body weight |

Skin corrosion/irritation : Not classified
Serious eye damage/irritation : Not classified
Respiratory or skin sensitization : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified

| ethanol (64-17-5) | |
|------------------------|------------------|
| IARC group | 1 |
| Reproductive toxicity | : Not classified |
| STOT-single exposure | : Not classified |
| STOT-repeated exposure | : Not classified |

| ethanol (64-17-5) | |
|---|---|
| NOAEL (subchronic,oral,animal/male,90 days) | < 9700 mg/kg body weight Animal: mouse, Animal sex: male, Guideline: EPA OPPTS 870.3100 (90-Day Oral Toxicity in Rodents) |
| NOAEL (subchronic,oral,animal/female,90 days) | > 9400 mg/kg body weight Animal: mouse, Animal sex: female, Guideline: EPA OPPTS 870.3100 (90-Day Oral Toxicity in Rodents) |

Aspiration hazard : Not classified

SECTION 12: Ecological information

12.1. Toxicity

| ethanol (64-17-5) | |
|----------------------|--|
| LC50 - Fish [1] | 15300 mg/l (US EPA, 96 h, Pimephales promelas, Flow-through system, Fresh water, Experimental value, Lethal) |
| EC50 - Crustacea [1] | 9300 mg/l (48 h, Daphnia magna, Pure substance) |
| NOEC (chronic) | 9.6 mg/l Test organisms (species): Daphnia magna Duration: '9 d' |

12.2. Persistence and degradability

| ethanol (64-17-5) | |
|---------------------------------|--|
| Persistence and degradability | Biodegradable in the soil. Readily biodegradable in water. |
| Biochemical oxygen demand (BOD) | 0.8 – 0.967 g O ₂ /g substance |

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| ethanol (64-17-5) | |
|------------------------------|-----------------------------------|
| Chemical oxygen demand (COD) | 1.7 g O ₂ /g substance |
| ThOD | 2.1 g O ₂ /g substance |
| BOD (% of ThOD) | 0.43 |

12.3. Bioaccumulative potential

| ethanol (64-17-5) | |
|---|---|
| BCF - Fish [1] | 1 (Other, 72 h, Cyprinus carpio, Static system, Fresh water, Read-across) |
| Partition coefficient n-octanol/water (Log Pow) | -0.31 (Experimental value) |
| Bioaccumulative potential | Not bioaccumulative. |

| Deionized water (7732-18-5) | |
|---|-------|
| Partition coefficient n-octanol/water (Log Pow) | -1.38 |

12.4. Mobility in soil

| ethanol (64-17-5) | |
|--|-----------------------------------|
| Surface tension | 22.31 mN/m (20 °C, 100 %) |
| Organic Carbon Normalized Adsorption Coefficient (Log Koc) | 0.2 (log Koc, Experimental value) |
| Ecology - soil | Highly mobile in soil. |

12.5. Other adverse effects

SECTION 13: Disposal considerations

13.1. Waste treatment methods

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number

Not applicable

14.2. UN proper shipping name

14.3. Additional information

Other information : No supplementary information available.

Overland transport

Transport by sea

Air transport

SECTION 15: Regulatory information

15.1. US Federal regulations

| ethanol (64-17-5) | |
|---|--|
| Listed on the United States TSCA (Toxic Substances Control Act) inventory | |

| Deionized water (7732-18-5) | |
|---|--|
| Listed on the United States TSCA (Toxic Substances Control Act) inventory | |

15.2. International regulations

CANADA

| ethanol (64-17-5) | |
|---|--|
| Listed on the Canadian DSL (Domestic Substances List) | |

| Deionized water (7732-18-5) | |
|---|--|
| Listed on the Canadian DSL (Domestic Substances List) | |

EU-Regulations

| Deionized water (7732-18-5) | |
|-----------------------------|--|
|-----------------------------|--|

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

Not classified

Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]

15.2.2. National regulations

| |
|--|
| ethanol (64-17-5) |
| Listed on IARC (International Agency for Research on Cancer) |
| Deionized water (7732-18-5) |

15.3. US State regulations

| Column Prep Desalting() | |
|---|----|
| U.S. - California - Proposition 65 - Carcinogens List | No |
| U.S. - California - Proposition 65 - Developmental Toxicity | No |
| U.S. - California - Proposition 65 - Reproductive Toxicity - Female | No |
| U.S. - California - Proposition 65 - Reproductive Toxicity - Male | No |

| ethanol (64-17-5) | | | | |
|---|---|---|---|----------------------------------|
| U.S. - California - Proposition 65 - Carcinogens List | U.S. - California - Proposition 65 - Developmental Toxicity | U.S. - California - Proposition 65 - Reproductive Toxicity - Female | U.S. - California - Proposition 65 - Reproductive Toxicity - Male | No significant risk level (NSRL) |
| No | No | No | No | |

| Deionized water (7732-18-5) | | | | |
|---|---|---|---|----------------------------------|
| U.S. - California - Proposition 65 - Carcinogens List | U.S. - California - Proposition 65 - Developmental Toxicity | U.S. - California - Proposition 65 - Reproductive Toxicity - Female | U.S. - California - Proposition 65 - Reproductive Toxicity - Male | No significant risk level (NSRL) |
| No | No | No | No | |

| ethanol (64-17-5) | | | | |
|--|--|--|--|--|
| State or local regulations | | | | |
| U.S. - Idaho - Non-Carcinogenic Toxic Air Pollutants - Acceptable Ambient Concentrations | | | | |
| U.S. - New Jersey - Right to Know Hazardous Substance List | | | | |
| U.S. - New York City - Right to Know Hazardous Substances List | | | | |
| U.S. - Pennsylvania - RTK (Right to Know) List | | | | |

SECTION 16: Other information

SDS US GENO (GHS HazCom 2012)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.