GE Healthcare

Material Safety Data Sheet

United States
English

Section 1. Chemical product and company identification

Product name **µRPC C2/C18 ST 4.6/100**

Catalogue Number 17-5057-01

Material uses Industrial applications: Analytical chemistry. Research. Liquid chromatography.
Product type Liquid.
Validation date 8 December 2011
Print date 08 December 2011

Supplier
GE Healthcare UK Ltd
Amersham Place
Little Chalfont
Buckinghamshire HP7 9NA
England
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In case of emergency

US	ChemTrec (US)	1-800-424-9300
Canada	ChemTrec (US)	1-703-527-3887

2. Hazards identification

Physical state Liquid. [and Suspension.]
Odor Alcohol-like. [Slight]
OSHA/HCS status This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
Emergency overview WARNING!

FLAMMABLE LIQUID AND VAPOR. HARMFUL IF INHALED, ABSORBED THROUGH SKIN OR SWALLOWED. CAUSES EYE AND SKIN IRRITATION. CONTAINS MATERIAL THAT CAN CAUSE TARGET ORGAN DAMAGE.

Precautionary measures Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Do not eat, drink or smoke when using this product. Avoid contact with eyes, skin and clothing. Keep away from heat, sparks and flame. Keep container tightly closed. Wash thoroughly after handling.

Routes of entry Dermal contact. Eye contact. Inhalation. Ingestion.

Potential acute health effects

Eyes Irritating to eyes.
Skin Toxic in contact with skin. Irritating to skin.
Inhalation Toxic by inhalation.
Ingestion Toxic if swallowed.

Potential chronic health effects

Chronic effects Contains material that can cause target organ damage.
Carcinogenicity No known significant effects or critical hazards.
Mutagenicity No known significant effects or critical hazards.
Teratogenicity No known significant effects or critical hazards.
Developmental effects No known significant effects or critical hazards.
Fertility effects No known significant effects or critical hazards.
Target organs Contains material which may cause damage to the following organs: liver, gastrointestinal tract, upper respiratory tract, skin, eyes, central nervous system (CNS).
Inhalation No specific data.
Ingestion No specific data.
Skin Adverse symptoms may include the following:
irritation
redness
Eyes Adverse symptoms may include the following:
pain or irritation
watering
redness

Medical conditions aggravated by over-exposure
Pre-existing disorders involving any target organs mentioned in this MSDS as being at risk may be aggravated by over-exposure to this product.

See toxicological information (Section 11)

3. Composition/information on ingredients

Name	CAS number	% by weight
Methanol	67-56-1	70

Section 4. First aid measures

Eye contact
Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention immediately.

Skin contact
In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention immediately.

Inhalation
Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.

Ingestion
Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.

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. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

Section 5. Fire-fighting measures

Flammability of the product
Flammable liquid. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Runoff to sewer may create fire or explosion hazard.

Extinguishing media

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

Not suitable
Do not use water jet.

Special exposure hazards
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.

Hazardous combustion products
Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
metal oxide/oxides

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.

Section 6. Accidental release measures

Personal precautions
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 spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see Section 8).

Environmental precautions
Avoid dispersal of spilled 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).

Methods for cleaning up
Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13). Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see section 1 for emergency contact information and section 13 for waste disposal.

Small spill
Stop leak if without risk. Move containers from spill area. 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. Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor.

Section 7. Handling and storage

Handling

Put on appropriate personal protective equipment (see Section 8). 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. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. 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 non-sparking tools. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Empty containers retain product residue and can be hazardous. Do not reuse container.

Storage

Store between the following temperatures: 4 to 30°C (39.2 to 86°F). 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. Eliminate all ignition sources. Separate from oxidizing 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 unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Product name	Exposure limits
Methanol	**ACGIH TLV (United States, 2/2010). Absorbed through skin. Notes: Substances for which there is a Biological Exposure Index or Indices** STEL: 328 mg/m³ 15 minute(s). STEL: 250 ppm 15 minute(s). TWA: 262 mg/m³ 8 hour(s). TWA: 200 ppm 8 hour(s). **NIOSH REL (United States, 6/2009). Absorbed through skin.** STEL: 325 mg/m³ 15 minute(s). STEL: 250 ppm 15 minute(s). TWA: 260 mg/m³ 10 hour(s). TWA: 200 ppm 10 hour(s). **OSHA PEL (United States, 11/2006).** TWA: 260 mg/m³ 8 hour(s). TWA: 200 ppm 8 hour(s). **OSHA PEL 1989 (United States, 3/1989). Absorbed through skin.** STEL: 325 mg/m³ 15 minute(s). STEL: 250 ppm 15 minute(s). TWA: 260 mg/m³ 8 hour(s). TWA: 200 ppm 8 hour(s).

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.

Engineering measures

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, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

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.

Personal protection

Respiratory

Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Hands

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.

Eyes

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 or dusts.

Skin

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.

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

Physical state	Liquid. [and Suspension.]
Flash point	Closed cup: 14 to 18°C (57.2 to 64.4°F)
Color	solution : Colorless. / Suspension. : White.
Odor	Alcohol-like. [Slight]
Volatility	70% (w/w)
VOC	70 % (w/w) [ISO 11890-1]
Ionicity (in water)	Non-ionic.
Solubility	Easily soluble in the following materials: cold water and hot water.

Section 10. Stability and reactivity

Stability	The product is stable.
Conditions to avoid	Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.
Materials to avoid	Reactive or incompatible with the following materials: oxidizing materials
Possibility of hazardous reactions	Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions of reactivity	Highly flammable in the presence of the following materials or conditions: open flames, sparks and static discharge and heat. Non-flammable in the presence of the following materials or conditions: moisture. Not considered to be a product presenting a risk of explosion.

Section 11. Toxicological information

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Methanol	LC50 Inhalation Gas.	Rat	145000 ppm	1 hours
	LC50 Inhalation Gas.	Rat	64000 ppm	4 hours
	LD50 Dermal	Rabbit	15800 mg/kg	-
	LD50 Oral	Rat	5600 mg/kg	-

Conclusion/Summary Not available.

Sensitizer

Conclusion/Summary Not available.

Section 12. Ecological information

Environmental effects No known significant effects or critical hazards.

Aquatic ecotoxicity

Product/ingredient name	Test	Result	Species	Exposure
Methanol	-	Acute LC50 2500000 ug/L Marine water	Crustaceans - Common shrimp, sand shrimp - Crangon crangon - Adult	48 hours
	-	Acute LC50 3289 to 4395 mg/L Fresh water	Daphnia - Water flea - Daphnia magna - Neonate - <24 hours	48 hours
	-	Acute LC50 >100000 ug/L Fresh water	Fish - Fathead minnow - Pimephales promelas - Juvenile (Fledgling, Hatchling, Weanling) - 0.2 to 0.5 g	96 hours

Conclusion/Summary Not available.

Biodegradability

Conclusion/Summary Not available.

Other adverse effects No known significant effects or critical hazards.

Section 13. Disposal considerations

Waste disposal

The generation of waste should be avoided or minimized wherever possible. Significant quantities of waste product residues should not be disposed of via the foul sewer but processed in a suitable effluent treatment plant. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. 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. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. 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. Vapor 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 spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

Section 14. Transport information

International transport regulations

Regulatory information	UN number	Proper shipping name	Class	Packing group	Label	Additional information
DOT Classification	UN1992	Flammable liquid, toxic, n.o.s. (Methanol solution)	3 (6.1)	II		-
TDG Classification	UN1992	Flammable liquid, toxic, n.o.s. (Methanol solution)	3 (6.1)	II		-
Mexico Classification	UN1992	Flammable liquid, toxic, n.o.s. (Methanol solution)	3 (6.1)	II		-
ADR/RID Class	UN1992	Flammable liquid, toxic, n.o.s. (Methanol solution)	3 (6.1)	II		Tunnel code (D/E)
IMDG Class	UN1992	Flammable liquid, toxic, n.o.s. (Methanol solution)	3 (6.1)	II		-

IATA Class	UN1992	Flammable liquid, toxic, n.o.s. (Methanol solution)	3 (6.1)	II		-

Section 15. Regulatory information

HCS Classification
Flammable liquid
Toxic material
Irritating material
Target organ effects

U.S. Federal regulations

TSCA 8(a) IUR Exempt/Partial exemption: Not determined
United States inventory (TSCA 8b): All components are listed or exempted.

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: Methanol
SARA 311/312 MSDS distribution - chemical inventory - hazard identification: Methanol: Fire hazard, Immediate (acute) health hazard, Delayed (chronic) health hazard

Clean Water Act (CWA) 307: No products were found.

Clean Water Act (CWA) 311: 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.

Clean Air Act Section 112(b) Hazardous Air Pollutants (HAPs): Listed

Clean Air Act Section 602 Class I Substances: Not listed

Clean Air Act Section 602 Class II Substances: Not listed

DEA List I Chemicals (Precursor Chemicals): Not listed

DEA List II Chemicals (Essential Chemicals): Not listed

SARA 313

	Product name	CAS number	Concentration
Form R - Reporting requirements	Methanol	67-56-1	70
Supplier notification	Methanol	67-56-1	70

SARA 313 notifications must not be detached from the MSDS and any copying and redistribution of the MSDS shall include copying and redistribution of the notice attached to copies of the MSDS subsequently redistributed.

State regulations

Massachusetts: The following components are listed: METHANOL

New York: The following components are listed: Methanol

New Jersey: The following components are listed: METHYL ALCOHOL; METHANOL

Pennsylvania: The following components are listed: METHANOL

California Prop. 65

United States inventory (TSCA 8b): All components are listed or exempted.

International regulations

International lists

Australia inventory (AICS): All components are listed or exempted.
China inventory (IECSC): All components are listed or exempted.
Japan inventory: Not determined.
Korea inventory: All components are listed or exempted.
New Zealand Inventory of Chemicals (NZIoC): All components are listed or exempted.
Philippines inventory (PICCS): All components are listed or exempted.

Chemical Weapons Convention List Schedule I Chemicals: Not listed

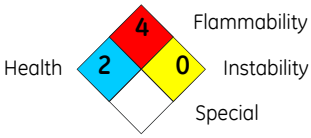
Chemical Weapons Convention List Schedule II Chemicals	Not listed
Chemical Weapons Convention List Schedule III Chemicals	Not listed

Section 16. Other information

Label requirements FLAMMABLE LIQUID AND VAPOR. HARMFUL IF INHALED, ABSORBED THROUGH SKIN OR SWALLOWED. CAUSES EYE AND SKIN IRRITATION. CONTAINS MATERIAL THAT CAN CAUSE TARGET ORGAN DAMAGE.

The customer is responsible for determining the PPE code for this material.

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



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