MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Material name	**CONDUCTIVITY STANDARD 1413 uS/cm**
Catalog #	2174
Version #	02
Revision date	02-Mar-2011
CAS #	Mixture
Manufacturer information	GFS Chemicals, Inc. P.O. Box 245 Powell, OH 43065 US www.gfschemicals.com Fax 740-881-5989 Phone 740-881-5501 Toll Free 800-858-9682 Emergency Assistance Chemtrec 800-424-9300

2. Hazards Identification

Emergency overview	Health injuries are not known or expected under normal use.
OSHA regulatory status	This product is considered not hazardous under 29 CFR 1910.1200 (Hazard Communication).
Potential health effects	
Routes of exposure	Not applicable.
Eyes	May irritate eyes.
Skin	Substance may cause slight skin irritation.
Potential environmental effects	Not expected to be harmful to aquatic organisms.

3. Composition / Information on Ingredients

Non-hazardous components	CAS #	Percent
WATER	7732-18-5	>99.9%
POTASSIUM CHLORIDE	7447-40-7	<0.1%

4. First Aid Measures

First aid procedures	
Eye contact	Rinse with water. Get medical attention if irritation develops and persists.
Skin contact	Rinse with water. Get medical attention if irritation develops and persists.
Inhalation	Unlikely route of exposure as the product does not contain volatile substances.
Ingestion	Drink water as a precaution.
General advice	If you feel unwell, seek medical advice (show the label where possible).

5. Fire Fighting Measures

Flammable properties	The product is not flammable. No unusual fire or explosion hazards noted.
Extinguishing media	
Suitable extinguishing media	Water. Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).
Protection of firefighters	
Protective equipment and precautions for firefighters	In the event of fire, cool tanks with water spray. Use water spray to cool unopened containers.
Specific methods	In the event of fire, cool tanks with water spray. Use water spray to cool unopened containers. Cool containers exposed to flames with water until well after the fire is out.

6. Accidental Release Measures

Personal precautions	Keep unnecessary personnel away. Local authorities should be advised if significant spillages cannot be contained.
Environmental precautions	Prevent further leakage or spillage if safe to do so. Do not contaminate water.
Methods for containment	Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible.
Methods for cleaning up	Dilute with water. Flush to sewer if local regulations permit. Following product recovery, flush area with water. Never return spills in original containers for re-use.

7. Handling and Storage

Handling	Avoid release to the environment. Handle and open container with care.
Storage	Keep containers tightly closed. Use care in handling/storage.

8. Exposure Controls / Personal Protection

Personal protective equipment

Eye / face protection	Wear safety glasses with side shields (or goggles).
General hygeine considerations	Handle in accordance with good industrial hygiene and safety practice.
General	Not normally needed. Eye wash fountain and emergency showers are recommended.

9. Physical & Chemical Properties

Appearance	Clear.
Color	Colorless.
Odor	Odorless.
Odor threshold	Not available.
Physical state	Liquid.
Form	Aqueous solution.
pH	6 - 8
Melting point	< 32 °F (< 0 °C)
Freezing point	Not available.
Boiling point	> 212 °F (> 100 °C)
Flash point	Not available.
Evaporation rate	Not available.
Flammability	Not available.
Flammability limits in air, upper, % by volume	Not available.
Flammability limits in air, lower, % by volume	Not available.
Vapor pressure	Not available.
Vapor density	Not available.
Specific gravity	1.0011 estimated
Relative density	1.001 g/cm3 estimated
Solubility (water)	Miscible.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Percent volatile	> 99.9 %

10. Chemical Stability & Reactivity Information

Chemical stability	Material is stable under normal conditions.
Incompatible materials	None known.

Possibility of hazardous reactions Hazardous polymerization does not occur.

11. Toxicological Information

Acute effects

Acute Oral: LD 50

POTASSIUM CHLORIDE	7447-40-7	Rat 2600 mg/kg
POTASSIUM CHLORIDE	7447-40-7	Guinea pig 2500 mg/kg
POTASSIUM CHLORIDE	7447-40-7	Mouse 383 mg/kg

Acute Toxicity other routes: LD 50

POTASSIUM CHLORIDE	7447-40-7	Rat 39 mg/kg Intravenous
POTASSIUM CHLORIDE	7447-40-7	Mouse 117 mg/kg Intravenous

Toxicology data for the preparation

Carcinogenicity This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

Further information This product has no known adverse effect on human health.

12. Ecological Information

Ecotoxicity Contains a substance which causes risk of hazardous effects to the environment.

Invertebrate Toxicity: EC 50

POTASSIUM CHLORIDE	7447-40-7	Tubificid worm (Tubifex tubifex) 2000 mg/l 24 h Static Intoxication
POTASSIUM CHLORIDE	7447-40-7	Zebra mussel (Dreissena polymorpha) 2440 - 4020 mg/l 12 h Static Intoxication
POTASSIUM CHLORIDE	7447-40-7	Water flea (Daphnia magna) 149 mg/l 48 h Static Intoxication
POTASSIUM CHLORIDE	7447-40-7	Water flea (Daphnia magna) 166 mg/l 48 h Static Intoxication
POTASSIUM CHLORIDE	7447-40-7	Zebra mussel (Dreissena polymorpha) 1020 - 1685 mg/l 6 h Static Intoxication
POTASSIUM CHLORIDE	7447-40-7	Water flea (Daphnia magna) 95.3 - 170.7 mg/l 48 h Static Intoxication
POTASSIUM CHLORIDE	7447-40-7	Water flea (Daphnia magna) 248.6 - 407.2 mg/l 24 h Static Intoxication
POTASSIUM CHLORIDE	7447-40-7	Water flea (Daphnia magna) 78 - 97 mg/l 21 d Renewal Intoxication
POTASSIUM CHLORIDE	7447-40-7	Water flea (Daphnia magna) 83 mg/l 48 h Static Intoxication
POTASSIUM CHLORIDE	7447-40-7	Water flea (Daphnia magna) 87 - 108 mg/l 21 d Renewal Intoxication
POTASSIUM CHLORIDE	7447-40-7	Water flea (Daphnia magna) 204 mg/l 64 h Static Intoxication
POTASSIUM CHLORIDE	7447-40-7	Zebra mussel (Dreissena polymorpha) 290 - 480 mg/l 24 h Static Intoxication
POTASSIUM CHLORIDE	7447-40-7	Tubificid worm (Tubifex tubifex) 1026 - 1671 mg/l 48 h Static Intoxication
POTASSIUM CHLORIDE	7447-40-7	Zebra mussel (Dreissena polymorpha) 2770 - 4340 mg/l 24 h Static Intoxication
POTASSIUM CHLORIDE	7447-40-7	Zebra mussel (Dreissena polymorpha) 155 - 280 mg/l 24 h Static Intoxication
POTASSIUM CHLORIDE	7447-40-7	Zebra mussel (Dreissena polymorpha) 1690 - 2810 mg/l 6 h Static Intoxication
POTASSIUM CHLORIDE	7447-40-7	Zebra mussel (Dreissena polymorpha) 1890 - 3080 mg/l 6 h Static Intoxication
POTASSIUM CHLORIDE	7447-40-7	Zebra mussel (Dreissena polymorpha) 1980 - 3060 mg/l 24 h Static Intoxication
POTASSIUM CHLORIDE	7447-40-7	Zebra mussel (Dreissena polymorpha) 2100 - 3330 mg/l 3 h Static Intoxication
POTASSIUM CHLORIDE	7447-40-7	Zebra mussel (Dreissena polymorpha) 2250 - 3490 mg/l 6 h Static Intoxication
POTASSIUM CHLORIDE	7447-40-7	Zebra mussel (Dreissena polymorpha) 2250 - 3490 mg/l 6 h Static Mortality
POTASSIUM CHLORIDE	7447-40-7	Zebra mussel (Dreissena polymorpha) 236 - 3880 mg/l 3 h Static Intoxication
POTASSIUM CHLORIDE	7447-40-7	Zebra mussel (Dreissena polymorpha) 2400 - 4444 mg/l 6 h Static Intoxication
POTASSIUM CHLORIDE	7447-40-7	Water flea (Daphnia magna) 93 mg/l 48 h Static Intoxication
POTASSIUM CHLORIDE	7447-40-7	Tubificid worm (Tubifex tubifex) 738 - 937 mg/l 96 h Static Intoxication
POTASSIUM CHLORIDE	7447-40-7	Zebra mussel (Dreissena polymorpha) 300 - 510 mg/l 24 h Static Intoxication
POTASSIUM CHLORIDE	7447-40-7	Water flea (Daphnia magna) 228 mg/l 64 h Static Intoxication
POTASSIUM CHLORIDE	7447-40-7	Zebra mussel (Dreissena polymorpha) 2880 - 4370 mg/l 3 h Static Intoxication
POTASSIUM CHLORIDE	7447-40-7	Zebra mussel (Dreissena polymorpha) 1340 - 2240 mg/l 12 h Static Intoxication
POTASSIUM CHLORIDE	7447-40-7	Zebra mussel (Dreissena polymorpha) 300 - 530 mg/l 24 h Static Intoxication
POTASSIUM CHLORIDE	7447-40-7	Zebra mussel (Dreissena polymorpha) 3060 - 4765 mg/l 3 h Static Intoxication
POTASSIUM CHLORIDE	7447-40-7	Zebra mussel (Dreissena polymorpha) 3060 - 4765 mg/l 3 h Static Mortality
POTASSIUM CHLORIDE	7447-40-7	Zebra mussel (Dreissena polymorpha) 3390 - 5480 mg/l 12 h Static Intoxication
POTASSIUM CHLORIDE	7447-40-7	Zebra mussel (Dreissena polymorpha) 3800 - 7190 mg/l 6 h Static Intoxication
POTASSIUM CHLORIDE	7447-40-7	Zebra mussel (Dreissena polymorpha) 400 - 690 mg/l 12 h Static Intoxication
POTASSIUM CHLORIDE	7447-40-7	Zebra mussel (Dreissena polymorpha) 4260 - 7456 mg/l 12 h Static Intoxication
POTASSIUM CHLORIDE	7447-40-7	Zebra mussel (Dreissena polymorpha) 4260 - 7465 mg/l 12 h Static Mortality
POTASSIUM CHLORIDE	7447-40-7	Zebra mussel (Dreissena polymorpha) 500 - 920 mg/l 24 h Static Intoxication
POTASSIUM CHLORIDE	7447-40-7	Zebra mussel (Dreissena polymorpha) 5010 - 7010 mg/l 3 h Static Intoxication
POTASSIUM CHLORIDE	7447-40-7	Zebra mussel (Dreissena polymorpha) 5765 - 9585 mg/l 3 h Static Intoxication
POTASSIUM CHLORIDE	7447-40-7	Zebra mussel (Dreissena polymorpha) 6380 - 11690 mg/l 6 h Static Mortality
POTASSIUM CHLORIDE	7447-40-7	Zebra mussel (Dreissena polymorpha) 6380 - 11960 mg/l 6 h Static Intoxication
POTASSIUM CHLORIDE	7447-40-7	Zebra mussel (Dreissena polymorpha) 650 - 1470 mg/l 3 h Static Intoxication
POTASSIUM CHLORIDE	7447-40-7	Zebra mussel (Dreissena polymorpha) 7100 - 15930 mg/l 3 h Static Intoxication
POTASSIUM CHLORIDE	7447-40-7	Zebra mussel (Dreissena polymorpha) 7100 - 15930 mg/l 3 h Static Mortality
POTASSIUM CHLORIDE	7447-40-7	Zebra mussel (Dreissena polymorpha) 720 - 1150 mg/l 12 h Static Intoxication
POTASSIUM CHLORIDE	7447-40-7	Zebra mussel (Dreissena polymorpha) 770 - 1300 mg/l 12 h Static Intoxication
POTASSIUM CHLORIDE	7447-40-7	Zebra mussel (Dreissena polymorpha) 800 - 1400 mg/l 12 h Static Intoxication
POTASSIUM CHLORIDE	7447-40-7	Zebra mussel (Dreissena polymorpha) 840 - 1440 mg/l 6 h Static Intoxication
POTASSIUM CHLORIDE	7447-40-7	Zebra mussel (Dreissena polymorpha) 2420 - 3410 mg/l 24 h Static Intoxication

Micro-organisms Toxicity: LC 50

POTASSIUM CHLORIDE	7447-40-7	Nematode (Caenorhabditis elegans) 43609 mg/l 24 h Static Mortality
POTASSIUM CHLORIDE	7447-40-7	Nematode (Caenorhabditis elegans) 41560 mg/l 48 h Static Mortality
POTASSIUM CHLORIDE	7447-40-7	Nematode (Caenorhabditis elegans) 41200 mg/l 24 h Static Mortality
POTASSIUM CHLORIDE	7447-40-7	Nematode (Caenorhabditis elegans) 40830 mg/l 24 h Static Mortality
POTASSIUM CHLORIDE	7447-40-7	Nematode (Caenorhabditis elegans) 39130 mg/l 48 h Static Mortality
POTASSIUM CHLORIDE	7447-40-7	Nematode (Caenorhabditis elegans) 29960 mg/l 48 h Static Mortality
POTASSIUM CHLORIDE	7447-40-7	Nematode (Caenorhabditis elegans) 29854 mg/l 24 h Static Mortality
POTASSIUM CHLORIDE	7447-40-7	Nematode (Caenorhabditis elegans) 42049 mg/l 24 h Static Mortality
POTASSIUM CHLORIDE	7447-40-7	Nematode (Caenorhabditis elegans) 29839 mg/l 24 h Static Mortality
POTASSIUM CHLORIDE	7447-40-7	Diatom (Nitzschia linearis) 1337 mg/l 5 d Static Mortality

Environmental effects An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Persistence and degradability Not available.

13. Disposal Considerations

Disposal instructions Wash to drains with lots of water. This product, in its present state, when discarded or disposed of, is not a hazardous waste according to Federal regulations (40 CFR 261.4 (b)(4)). Under RCRA, it is the responsibility of the user of the product to determine, at the time of disposal, whether the product meets RCRA criteria for hazardous waste. Dispose in accordance with all applicable regulations.

Waste from residues / unused products Not applicable.

14. Transport Information

DOT

Not regulated as dangerous goods.

15. Regulatory Information

US federal regulations This product is not known to be a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
All components are on the U.S. EPA TSCA Inventory List.

CERCLA/SARA Hazardous Substances - Not applicable.

CERCLA (Superfund) reportable quantity

None

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories Immediate Hazard - No
Delayed Hazard - No
Fire Hazard - No
Pressure Hazard - No
Reactivity Hazard - No

Section 302 extremely hazardous substance No

Section 311 hazardous chemical No

Inventory status

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of New and Existing Chemicals (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	No
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

State regulations This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

16. Other Information

Further information HMIS® is a registered trade and service mark of the NPCA.

HMIS® ratings Health: 0
Flammability: 0
Physical hazard: 0

NFPA ratings Health: 0
Flammability: 0
Instability: 0

Disclaimer	The information in the sheet was written based on the best knowledge and experience currently available. The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.
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This data sheet contains changes from the previous version in section(s):	This document has undergone significant changes and should be reviewed in its entirety.