

SAFETY DATA SHEET

1. Chemical Product and Company Identification

Description: Differential Sensors
Product Code: 2764, 2766, 2765 and 2767
Product Type: Aqueous buffered reference solution and gelled salt bridge.
Application: Differential Sensors

Manufacturer/Supplier Information

Manufactured for and SDS prepared by:
Georg Fischer Signet LLC
3401 Aero Jet Ave.
El Monte, California 91731

Date Prepared: 11/30/2018

For additional health, safety or regulatory information, call (626) 571-2770

**For Chemical Emergency
Spill Leak Fire Exposure or Accident
Call CHEMTREC Day or Night**

DOMESTIC NORTH AMERICA 800-424-9300

INTERNATIONAL, REFER TO THE INFORMATION CONTAINED HEREIN AND CALL YOUR LOCAL GF OFFICE

2. Hazards Identification

Signal word: WARNING

Pictograms: GHS07

Target Organs: Red blood cells



GHS Classification:

Skin irritation (Category 2)

Eye irritation (Category 2A)

GHS Label Information:

Hazard Statement:

H315: Causes skin irritation

H319: Causes serious eye irritation

Precautionary Statement:

If sensor breaks and operator is exposed to internal salt and/or gel solutions take the following measures:

P264: Wash hands thoroughly after handling.

P280: Wear protective gloves/protective clothing/eye protection/face protection.

P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing.

P337+P313: If eye irritation persists: Get medical attention.

P302+P352: IF ON SKIN: Wash with plenty of water and soap.

P332+P313: If skin irritation occurs: Get medical attention.

P362+P364: Take off contaminated clothing and wash it before reuse.

Ca Prop 65 - This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.

3. Composition/Information on Ingredients

Chemical Characterization: Mixtures

Description: Two mixtures (gelled salt bridge approximately 15% and reference solution, approximately 85%) containing the substances listed below with non-hazardous additions.

Water

CAS Number: 7732-18-5

% w/v: >78

Potassium Nitrate

CAS Number: 7757-79-1

% w/v: <12

Sodium Chloride

CAS Number: 7647-14-5

% w/v: <5

Potassium Phosphate

CAS Number: 7778-77-0

% w/v: <1

Sodium Hydroxide

CAS Number: 1310-73-2

% w/v: <1

Polyacrylamide-co-methylene-bis-acrylamide

CAS Number: 25034-58-6

% w/v: <1.5

4. First Aid Measures

Ingestion: HARMFUL IF SWALLOWED. Call physician or Poison Control Center immediately. Induce vomiting only if advised by appropriate medical personnel. Never give anything by mouth to an unconscious person.

Inhalation: MAY CAUSE RESPIRATORY TRACT IRRITATION. Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Eye Contact: CAUSES EYE IRRITATION. Check for and remove contact lenses. Flush thoroughly with water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get immediate medical attention.

Skin Contact: MAY BE HARMFUL IF ABSORBED THROUGH SKIN. CAUSES SKIN IRRITATION. Remove contaminated clothing. Flush thoroughly with mild soap and water. If irritation occurs, get medical attention.

5. Fire Fighting Measures

- Suitable Extinguishing Media:** Use any media suitable for extinguishing supporting fire.
- Protective Actions for Firefighters:** In fire conditions, wear a NIOSH/MSHA-approved self-contained breathing apparatus and full protective gear. Use water spray to keep fire-exposed containers cool.
- Specific Hazards:** In fire conditions, water may evaporate from this solution which may cause hazardous decomposition products to be formed as dust or fume.

6. Accidental Release Measures

- Personal Precautions:** Evacuate personnel to safe area. Use proper personal protective equipment as indicated in Section 8. Provide adequate ventilation.
- Environmental Precautions:** Avoid runoff into storm sewers and ditches which lead to waterways.
- Containment and Cleanup:** Absorb with inert dry material, sweep or vacuum up and place in a suitable container for proper disposal. Wash spill area with soap and water.

7. Handling and Storage

- Conditions for Handling:** Read label on container before using.
Do not wear contact lenses when working with chemicals.
Keep out of reach of children.
Avoid contact with eyes, skin and clothing.
Do not inhale vapors, spray or mist.
Use with adequate ventilation.
Avoid ingestion.
Wash thoroughly after handling.
Remove and wash clothing before reuse.

Conditions for Safe Storage: Store according to product specification.

8. Exposure Controls / Personal Protection

Exposure Limits:

ACGIH (TLV):	Not established
OSHA (PEL):	Not established
NIOSH (REL):	Not established

General Protective and

- Hygienic Measures:** The usual precautionary measures for handling chemicals should be followed.
- Protection of Hands:** Protective gloves.
- Material of Gloves:** Synthetic gloves
- Eye Protection:** Safety glasses

9. Physical and Chemical Properties

- Appearance:** Reference solution: clear, colorless liquid
Salt bridge gel: clear, colorless, solid

Odor:	No odor.
Odor Threshold:	Data not available.
pH:	Data not available.
Melting / Freezing Point:	Approximately 0°C (32°F) (water)
Boiling Point:	Approximately 100°C (212°F) (water)
Flash Point:	Data not available
Evaporation Rate (water = 1):	<1
Flammability:	Data not available
Explosion Limits:	Data not available.
Vapor Pressure (mm Hg):	14 (water)
Vapor Density (Air = 1):	0.7 (water)
Relative Density (Specific Gravity):	1.0 (water)
Solubility:	Complete in water
Molecular Formula:	Mixture
Molecular Weight:	Mixture

10. Stability and Reactivity

Chemical Stability:	Stable
Hazardous Polymerization:	Will not occur.
Conditions to Avoid:	Excessive temperatures which cause evaporation.
Incompatible Materials:	Heavy metals, phosphites, organic compounds, carbonaceous materials, strong acids.

Hazardous Decomposition

Products:	Nitrogen oxides and toxic metal fumes.
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11. Toxicological Information

Skin Corrosion/Irritation:	Data not available
Serious Eye Damage/Irritation:	Data not available
Respiratory or Skin Sensitization:	Data not available
Germ Cell Mutagenicity:	Data not available
Carcinogenicity:	Data not available

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive Toxicity:	Data not available
STOT-Single Exposure:	Data not available
STOT-Repeated Exposure:	Data not available
Aspiration Hazard:	Data not available

Potential Health Effects:

Inhalation:	Inhalation causes cough, sore throat.
Ingestion:	Ingestion causes abdominal pain, blue lips, fingernails and skin, dizziness, labored breathing, confusion, convulsions, diarrhea, headache, nausea, unconsciousness.
Skin:	Contact with skin causes redness.
Eyes:	Contact with eyes causes redness and pain.

Signs/Symptoms of Exposure:

Ingestion could cause effects on the blood. This may result in formation of methaemoglobin. The effects may be delayed. Medical observation is indicated. Exercise appropriate procedures to minimize potential hazards.

12. Ecological Information

Toxicity to Fish: *Poecilia reticulata* (fish, fresh water), LC50 = 1378 mg/L/96 hours (Potassium nitrate)

Toxicity to Daphnia and Other Aquatic Invertebrates: *Daphnia magna* (Crustacea), TLm = 39 mg/L/96 hours (Potassium nitrate)

Toxicity to Algae: No data available

Persistence and Degradability: No data available

Bioaccumulative Potential: No data available

Mobility in Soil: No data available

PBT and vPvB Assessment: No data available

Other Adverse Effects: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

13. Disposal Consideration

Waste Treatment Method: Must not be disposed of together with household garbage. Do not allow product to reach sewage system. Dispose of in accordance with international, federal, state and local regulations.

14. Transport Information (US DOT / CANADA TDG)

UN/NA Number: Not applicable
Shipping Name: Not regulated
Hazard Class: Not applicable
Packing Group: Not applicable
Reportable Quantity: No
Marine Pollutant: No
Exceptions: Not applicable
2012 ERG Guide # Not applicable

15. Regulatory Information

WHMIS Classification: Class C, oxidizing material

NDSL: Not listed

CERLCA (RQ): Not listed

RCRA code: D001

**SARA TITLE III: 313 and 401CFR372:**

Product does not contain any toxic chemical subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1996, and Subpart C – Supplier notification requirement of 40CFR372.

TSCA Section 8(b) Inventory:

Georg Fischer Signet relies on the SDS and certifications of compliance from our suppliers for chemical substances not manufactured by Georg Fischer Signet.

16. Disclaimer

It is the responsibility of the Distributor, Dealer, or Agent to provide a current copy of the SDS to the Consumers of Georg Fischer Signet LLC products. The information contained herein is presented in good faith and has been compiled from sources believed to be reliable. It represents the best information currently available to us. No warranty expressed or implied, or merchantability, fitness or otherwise is made and we assume no liability resulting from its use. This information is offered for your consideration and users should make their own investigation and verification to determine the suitability of the information for their particular purposes. In no event shall Georg Fischer Signet LLC, the parent company or its subsidiaries be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, however arising, even if Georg Fischer Signet LLC has been advised of the possibility of such damages. This information relates to the material designated and may not be valid for such material used in combination with any other materials nor in any process.

Revision

Date of latest revision:	11/30/2018
Responsibility for SDS:	S.K. Wells

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