

## Information Sheet

### SECTION 1. Identification of the substance/mixture and of the company/undertaking.

#### 1.1. Product identifier.

Code. **HI7075**  
Product name. **1.7M Potassium Nitrate, 0.7M Potassium Chloride Electrode Fill Solution**

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

Intended use. **Reference Electrolyte fill Solution for Fluoride Ion Selective Electrodes.**

#### 1.3. Details of the supplier of the safety data sheet.

Name. **Hanna Instruments S.R.L.**  
Full address. **str. Hanna Nr 1**  
District and Country. **457260 loc. Nusfalau (Salaj)**  
**Romania**  
Tel. **(+40) 260607700**  
Fax. **(+40) 260607700**

e-mail address of the competent person.  
responsible for the Safety Data Sheet. **msds@hanna.ro**

#### 1.4. Emergency telephone number.

For urgent inquiries refer to. **Emergency Number - International: +(1)-703-527-3887 - UK, London:  
+(44)-870-8200418 - CHEMTREC 24 hours/365 days**

### SECTION 2. Hazards identification.

#### 2.1. Classification of the substance or mixture.

The product is not classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements).

Hazard classification and indication: --

#### 2.2. Label elements.

Hazard pictograms: --

Signal words: --

Hazard statements: --

Precautionary statements: --

#### 2.3. Other hazards.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

### SECTION 3. Composition/information on ingredients.

#### 3.1. Substances.

Information not relevant.

#### 3.2. Mixtures.

The product does not contain substances classified as being hazardous to human health or the environment pursuant to the provisions Regulation (EU) 1272/2008 (CLP) (and subsequent amendments and supplements) in such quantities as to require the statement.

## SECTION 4. First aid measures.

### 4.1. Description of first aid measures.

**EYES:** Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

**SKIN:** Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

**INGESTION:** Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

**INHALATION:** Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

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

Specific information on symptoms and effects caused by the product are unknown.

For symptoms and effects caused by the contained substances, see chap. 11.

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

Information not available.

## SECTION 5. Firefighting measures.

### 5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water.

Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

### 5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

### 5.3. Advice for firefighters.

GENERAL INFORMATION

In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

## SECTION 6. Accidental release measures.

### 6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

### 6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

### 6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. If the product is flammable, use explosion-proof equipment. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

### 6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

## SECTION 7. Handling and storage.

### 7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Wash hands after use. Avoid leakage of the product into the environment.

### 7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Store in a ventilated and dry place, far away from sources of ignition. Keep containers well sealed. Keep the product in clearly labelled containers. Avoid overheating. Avoid violent blows. Keep containers away from any incompatible materials, see section 10 for details.

### 7.3. Specific end use(s).

Information not available.

## SECTION 8. Exposure controls/personal protection.

### 8.1. Control parameters.

#### RESPIRATORY PROTECTION

None required, unless indicated otherwise in the chemical risk assessment.  
Information not available.

### 8.2. Exposure controls.

Comply with the safety measures usually applied when handling chemical substances.

#### HAND PROTECTION

None required.

#### SKIN PROTECTION

None required.

#### EYE PROTECTION

None required.

#### RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type B filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

#### ENVIRONMENTAL EXPOSURE CONTROLS.

The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

## SECTION 9. Physical and chemical properties.

### 9.1. Information on basic physical and chemical properties.

Appearance	liquid
Colour	colourless
Odour	odourless
Odour threshold.	Not available.
pH.	5,8
Melting point / freezing point.	Not available.
Initial boiling point.	Not available.
Boiling range.	Not available.
Flash point.	> 60 °C.
Evaporation rate	Not available.
Flammability (solid, gas)	Not available.
Lower inflammability limit.	Not available.
Upper inflammability limit.	Not available.
Lower explosive limit.	Not available.
Upper explosive limit.	Not available.

## SECTION 9. Physical and chemical properties. ... / >>

Vapour pressure.	Not available.
Vapour density	Not available.
Relative density.	1,120
Solubility	soluble in water
Partition coefficient: n-octanol/water	Not available.
Auto-ignition temperature.	Not available.
Decomposition temperature.	Not available.
Viscosity	Not available.
Explosive properties	Not available.
Oxidising properties	Not available.

### 9.2. Other information.

Total solids (250°C / 482°F)	19,92 %	
VOC (Directive 2010/75/EC) :	0,10 % - 1,09	g/litre.
VOC (volatile carbon) :	0,04 % - 0,43	g/litre.

## SECTION 10. Stability and reactivity.

### 10.1. Reactivity.

#### FORMALDEHYDE

FORMALDEHYDE 37% with 10% METHANOL: Aqueous solutions are stabilised with methanol but tend to polymerise over time. Storage temperature varies according to concentration. Solutions >25% are also corrosive. Decomposes under the effect of heat.

### 10.2. Chemical stability.

Information not available.

### 10.3. Possibility of hazardous reactions.

The product may react violently with water.

#### POTASSIUM NITRATE

Risk of explosion with: Cyanides, Sulphides, combustible substances, Fluorine, Potassium, acetates, oxidisable substances, phosphides, Organic Substances, Peroxides Aluminium, antimony, charcoal, Titanium, Zinc, Metals, in powder form, with, heat arsenic, Boron, Germanium, nitrides, magnesium, sodium thiosulphate, phosphorus, strong reducing agents, sulfur, sugars, with, heat charcoal, with, sulfur, and, Heat. Generates dangerous gases or fumes in contact with: Acids. Possible formation of: nitrogen dioxide. Risk of ignition or formation of inflammable gases or vapours with: calcium silicide.

#### FORMALDEHYDE

FORMALDEHYDE 37% with 10% METHANOL: Risk of explosion on contact with: nitromethane, nitrogen dioxide (at 180°C/356°F), hydrogen peroxide, phenol, performic acid, nitric acid. It may also polymerise on contact with: strong oxidising agents, alkalis. Can react dangerously with: hydrochloric acid, magnesium carbonate, sodium hydroxide, perchloric acid and aniline. Forms explosive mixtures with the air.

### 10.4. Conditions to avoid.

Avoid overheating. Prevent moisture or water from penetrating inside the containers.

#### POTASSIUM NITRATE

Keep away from open flames, hot surfaces and sources of ignition.

#### FORMALDEHYDE

FORMALDEHYDE 37% with 10% METHANOL: Avoid exposure to light, sources of heat and naked flames.

### 10.5. Incompatible materials.

#### FORMALDEHYDE

FORMALDEHYDE 37% with 10% METHANOL: Acids, alkalis, ammonia, tannin, strong oxidising agents, phenols and copper, silver and iron salts.

### 10.6. Hazardous decomposition products.

#### FORMALDEHYDE

FORMALDEHYDE 37% with 10% METHANOL: Carbon oxides.

## SECTION 11. Toxicological information.

### 11.1. Information on toxicological effects.

#### ACUTE TOXICITY.

LC50 (Inhalation - vapours) of the mixture:	Not classified (no significant component).
LC50 (Inhalation - mists / powders) of the mixture:	Not classified (no significant component).
LD50 (Oral) of the mixture:	Not classified (no significant component).
LD50 (Dermal) of the mixture:	Not classified (no significant component).

#### SKIN CORROSION / IRRITATION.

Does not meet the classification criteria for this hazard class.

#### SERIOUS EYE DAMAGE / IRRITATION.

Does not meet the classification criteria for this hazard class.

#### RESPIRATORY OR SKIN SENSITISATION.

Does not meet the classification criteria for this hazard class.

#### GERM CELL MUTAGENICITY.

Does not meet the classification criteria for this hazard class.

#### CARCINOGENICITY.

Does not meet the classification criteria for this hazard class.

#### REPRODUCTIVE TOXICITY.

Does not meet the classification criteria for this hazard class.

#### STOT - SINGLE EXPOSURE.

Does not meet the classification criteria for this hazard class.

#### STOT - REPEATED EXPOSURE.

Does not meet the classification criteria for this hazard class.

#### ASPIRATION HAZARD.

Does not meet the classification criteria for this hazard class.

## SECTION 12. Ecological information.

Use this product according to good working practices. Avoid littering. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation.

### 12.1. Toxicity.

Information not available.

### 12.2. Persistence and degradability.

Information not available.

### 12.3. Bioaccumulative potential.

Information not available.

### 12.4. Mobility in soil.

Information not available.

### 12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

### 12.6. Other adverse effects.

Information not available.

## SECTION 13. Disposal considerations.

### 13.1. Waste treatment methods.

Reuse, when possible. Neat product residues should be considered special non-hazardous waste.  
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.  
CONTAMINATED PACKAGING  
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

## SECTION 14. Transport information.

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

### 14.1. UN number.

Not applicable.

### 14.2. UN proper shipping name.

Not applicable.

### 14.3. Transport hazard class(es).

Not applicable.

### 14.4. Packing group.

Not applicable.

### 14.5. Environmental hazards.

Not applicable.

### 14.6. Special precautions for user.

Not applicable.

### 14.7. Transport in bulk according to Annex II of Marpol and the IBC Code.

Information not relevant.

## SECTION 15. Regulatory information.

### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

Seveso Category - Directive 2012/18/EC: 14

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006.  
None.

Substances in Candidate List (Art. 59 REACH).  
On the basis of available data, the product does not contain any SVHC in percentage greater than 0,1%.

Substances subject to authorisation (Annex XIV REACH).  
None.

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:  
None.

Substances subject to the Rotterdam Convention:  
None.

## SECTION 15. Regulatory information. ... / >>

Substances subject to the Stockholm Convention:

None.

Healthcare controls:

Information not available.

WGK 1: Low hazard to waters

### 15.2. Chemical safety assessment.

No chemical safety assessment has been processed for the mixture and the substances it contains.

## SECTION 16. Other information.

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Regulation (EU) 1907/2006 (REACH) of the European Parliament
2. Regulation (EU) 1272/2008 (CLP) of the European Parliament
3. Regulation (EU) 790/2009 (I Atp. CLP) of the European Parliament
4. Regulation (EU) 2015/830 of the European Parliament
5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament

- The Merck Index. - 10th Edition
- Handling Chemical Safety
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

**SECTION 16. Other information.** ... / >>

## Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.