

## Safety Data Sheet

According to Annex II to REACH - Regulation 2020/878 and to Annex II to UK REACH

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

#### 1.1. Product identifier

Code HI93722-0  
 Product name Cyanuric Acid Reagent

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

Intended use Determination of Cyanuric Acid in Water Samples.

#### 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 International: +1 7035273887 - UK, London: +44 2038073798 - CHEMTREC 24 hours/365 days

### SECTION 2. Hazards identification

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

The product is classified as hazardous pursuant to the provisions set forth in (EC) Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of (EU) Regulation 2020/878.

Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Hazard classification and indication:  
 Reproductive toxicity, category 2 H361f Suspected of damaging fertility.

#### 2.2. Label elements

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:



Signal words: Warning

Hazard statements:  
 H361f Suspected of damaging fertility.  
 EUH031 Contact with acids liberates toxic gas.

Precautionary statements:  
 P201 Obtain special instructions before use.  
 P280 Wear protective gloves/ protective clothing / eye protection / face protection.  
 P308+P313 IF exposed or concerned: Get medical advice / attention.

Contains: 2,4,6-TRIAMINO-1,3,5-TRIAZINE

## SECTION 2. Hazards identification ... / >>

### 2.3. Other hazards

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

The product does not contain substances with endocrine disrupting properties in concentration  $\geq$  0.1%.

## SECTION 3. Composition/information on ingredients

### 3.2. Mixtures

Contains:

Identification x = Conc. % Classification (EC) 1272/2008 (CLP)

#### SODIUM SULFITE

##### INDEX

EC 231-821-4

CAS 7757-83-7

#### 2,4,6-TRIAMINO-1,3,5-TRIAZINE

##### INDEX

EC 203-615-4

CAS 108-78-1

$1 \leq x < 5$

$3 \leq x < 5$

EUH031

Repr. 2 H361f

The full wording of hazard (H) phrases is given in section 16 of the sheet.

## SECTION 4. First aid measures

### 4.1. Description of first aid measures

Not specifically necessary. Observance of good industrial hygiene is recommended.

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

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

### 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

The extinguishing equipment should be of the conventional kind: carbon dioxide, foam, powder and water spray.

#### UNSUITABLE EXTINGUISHING EQUIPMENT

None in particular.

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

#### HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

Do not breathe combustion products. The product is combustible and, when the powder is released into the air in sufficient concentrations and in the presence of a source of ignition, it can create explosive mixtures with air. Fires may start or get worse by leakage of the solid product from the container, when it reaches high temperatures or through contact with sources of ignition.

#### 2,4,6-TRIAMINO-1,3,5-TRIAZINE

Combustible. Development of hazardous combustion gases or vapours possible in the event of fire. Fire may cause evolution of: Hydrogen cyanide (hydrocyanic acid), nitrogen oxides.

### 5.3. Advice for firefighters

#### GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

#### 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

Use breathing equipment if fumes or powders are released into the air. 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

Confine using earth or inert material. Collect as much material as possible and eliminate the rest using jets of water. 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

Before handling the product, consult all the other sections of this material safety data sheet. Avoid leakage of the product into the environment. Do not eat, drink or smoke during use.

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

Keep the product in clearly labelled containers. 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

#### SODIUM SULFITE

##### Predicted no-effect concentration - PNEC

|                              |      |      |
|------------------------------|------|------|
| Normal value in fresh water  | 1,33 | mg/l |
| Normal value in marine water | 0,13 | mg/l |

##### Health - Derived no-effect level - DNEL / DMEL

| Route of exposure | Effects on consumers |                |               | Effects on workers |             |                |               |                  |
|-------------------|----------------------|----------------|---------------|--------------------|-------------|----------------|---------------|------------------|
|                   | Acute local          | Acute systemic | Chronic local | Chronic systemic   | Acute local | Acute systemic | Chronic local | Chronic systemic |
| Oral              |                      |                | VND           | 11                 |             |                |               |                  |
|                   |                      |                |               | mg/kg bw/d         |             |                |               |                  |
| Inhalation        |                      |                | VND           | 88                 |             |                | VND           | 298              |
|                   |                      |                |               | mg/m3              |             |                |               | mg/m3            |

**SECTION 8. Exposure controls/personal protection**      ... / >>

**2,4,6-TRIAMINO-1,3,5-TRIAZINE**

| Predicted no-effect concentration - PNEC       |                      |                |                    |                    |             |                      |               |                       |
|--|----------------------|----------------|--------------------|--------------------|-------------|----------------------|---------------|-----------------------|
| Normal value in fresh water                    |                      |                |                    | 0,51               | mg/l        |                      |               |                       |
| Normal value in marine water                   |                      |                |                    | 0,051              | mg/l        |                      |               |                       |
| Normal value for fresh water sediment          |                      |                |                    | 5,5                | mg/kg/d     |                      |               |                       |
| Normal value for marine water sediment         |                      |                |                    | 0,55               | mg/kg/d     |                      |               |                       |
| Normal value for water, intermittent release   |                      |                |                    | 2                  | mg/l        |                      |               |                       |
| Normal value of STP microorganisms             |                      |                |                    | 200                | mg/l        |                      |               |                       |
| Normal value for the terrestrial compartment   |                      |                |                    | 1,6                | mg/kg/d     |                      |               |                       |
| Health - Derived no-effect level - DNEL / DMEL |                      |                |                    |                    |             |                      |               |                       |
| Route of exposure                              | Effects on consumers |                | Effects on workers |                    |             |                      |               |                       |
|  | Acute local          | Acute systemic | Chronic local      | Chronic systemic   | Acute local | Acute systemic       | Chronic local | Chronic systemic      |
| Oral   |                      |                | VND                | 0,63<br>mg/kg bw/d |             |                      |               |                       |
| Inhalation                                     |                      |                | VND                | 2,2<br>mg/m3       | VND         | 11<br>mg/m3          | VND           | 8,9<br>mg/m3          |
| Skin   |                      |                | VND                | 6,3<br>mg/kg bw/d  | VND         | 126<br>mg/kg<br>bw/d | VND           | 12,6<br>mg/kg<br>bw/d |

VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified ; LOW = low hazard ; MED = medium hazard ; HIGH = high hazard.

During the risk assessment process, it is essential to take into consideration the ACGIH occupational exposure levels for inert particulate not otherwise classified (PNOC respirable fraction: 3 mg/m3; PNOC inhalable fraction: 10 mg/m3). For values above these limits, use a P type filter, whose class (1, 2 or 3) must be chosen according to the outcome of risk assessment.

**8.2. Exposure controls**

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.

If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.

**HAND PROTECTION**

In the case of prolonged contact with the product, protect the hands with penetration-resistant work gloves (see standard EN 374).

Work glove material must be chosen according to the use process and the products that may form. Latex gloves may cause sensitivity reactions.

**SKIN PROTECTION**

Wear category I professional long-sleeved overalls and safety footwear (see Regulation 2016/425 and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

**EYE PROTECTION**

Wear airtight protective goggles (see standard EN 166).

**RESPIRATORY PROTECTION**

Use a type P filtering facemask, whose class (1, 2 or 3) and effective need, must be defined according to the outcome of risk assessment (see standard EN 149).

**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**

| Properties                     | Value          | Information |
|--------------------------------|----------------|-------------|
| Appearance                     | powder         |             |
| Colour                         | ivory          |             |
| Odour                          | odourless      |             |
| Melting point / freezing point | not available  |             |
| Initial boiling point          | not applicable |             |
| Flammability                   | not available  |             |
| Lower explosive limit          | not available  |             |
| Upper explosive limit          | not available  |             |
| Flash point                    | not applicable |             |
| Auto-ignition temperature      | not available  |             |

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

|  |                  |   |
|--|------------------|---|
| Decomposition temperature              | not available    | Method:ASTM D1293-18<br>Concentration: 2.15 %<br>Temperature: 25 °C |
| pH                                     | 6.6 - 7.0        |   |
| Kinematic viscosity                    | not available    |   |
| Solubility                             | soluble in water |   |
| Partition coefficient: n-octanol/water | not available    |   |
| Vapour pressure                        | not available    |   |
| Density and/or relative density        | 1,9              |   |
| Relative vapour density                | not available    |   |
| Particle characteristics               | not available    |   |

9.2. Other information

9.2.1. Information with regard to physical hazard classes

Information not available

9.2.2. Other safety characteristics

|                              |                |
|------------------------------|----------------|
| Total solids (250°C / 482°F) | 100,00 %       |
| Explosive properties         | not applicable |
| Oxidising properties         | not applicable |

**SECTION 10. Stability and reactivity**

10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions

The powders are potentially explosive when mixed with air.

**SODIUM SULFITE**

Violent reactions possible with: nitrites, Exothermic reaction with: Oxidizing agents, Generates dangerous gases or fumes in contact with: acids.

**2,4,6-TRIAMINO-1,3,5-TRIAZINE**

Violent reactions possible with: Strong oxidizing agents, Strong acids.

10.4. Conditions to avoid

Avoid environmental dust build-up.

10.5. Incompatible materials

Information not available

10.6. Hazardous decomposition products

Information not available

**SECTION 11. Toxicological information**

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification. It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

SECTION 11. Toxicological information ... / >>

Information not available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Information not available

Interactive effects

Information not available

ACUTE TOXICITY

|                                  |   |
|----------------------------------|---|
| ATE (Inhalation) of the mixture: | Not classified (no significant component) |
| ATE (Oral) of the mixture:       | Not classified (no significant component) |
| ATE (Dermal) of the mixture:     | Not classified (no significant component) |

SODIUM SULFITE

LD50 (Oral): 2610 mg/kg Rat

2,4,6-TRIAMINO-1,3,5-TRIAZINE

LD50 (Dermal): > 1000 mg/kg Rabbit  
 LD50 (Oral): 3161 mg/kg Rat  
 LC50 (Inhalation mists/powders): > 5,19 mg/l/4h

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

Suspected of damaging fertility

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

11.2. Information on other hazards

Based on the available data, the product does not contain substances listed in the main European lists of potential or suspected endocrine disruptors with human health effects under evaluation.

## 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

|  |  |
|--|--|
| SODIUM SULFITE<br>LC50 - for Fish                | 315 mg/l/96h <i>Leociscus idus</i>         |
| 2,4,6-TRIAMINO-1,3,5-TRIAZINE<br>LC50 - for Fish | > 3000 mg/l/96h <i>Poecilia reticulata</i> |
| EC50 - for Crustacea                             | > 48 mg/l/48h <i>Daphnia magna</i>         |

### 12.2. Persistence and degradability

|  |              |
|--|--------------|
| SODIUM SULFITE<br>Solubility in water                | > 10000 mg/l |
| Degradability: information not available             |              |
| 2,4,6-TRIAMINO-1,3,5-TRIAZINE<br>Solubility in water | 3200 mg/l    |

### 12.3. Bioaccumulative potential

|   |               |
|---|---------------|
| SODIUM SULFITE<br>Partition coefficient: n-octanol/water                | -4 Log Kow    |
| 2,4,6-TRIAMINO-1,3,5-TRIAZINE<br>Partition coefficient: n-octanol/water | -1,37 Log Kow |

### 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  $\geq$  than 0,1%.

### 12.6. Endocrine disrupting properties

Based on the available data, the product does not contain substances listed in the main European lists of potential or suspected endocrine disruptors with environmental effects under evaluation.

### 12.7. Other adverse effects

Information not available

## SECTION 13. Disposal considerations

### 13.1. Waste treatment methods

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.

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.

## SECTION 14. Transport information [... / >>](#)

### 14.1. UN number or ID 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. Maritime transport in bulk according to IMO instruments

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/EU: None

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

Regulation (EU) 2019/1148 - on the marketing and use of explosives precursors  
not applicable

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

Substances subject to authorisation (Annex XIV REACH)  
None

Substances subject to exportation reporting pursuant to Regulation (EU) 649/2012:  
None

Substances subject to the Rotterdam Convention:  
None

Substances subject to the Stockholm Convention:  
None

Healthcare controls  
Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the workers' health and safety are modest and that the 98/24/EC directive is respected.

German regulation on the classification of substances hazardous to water (AwSV, vom 18. April 2017)  
WGK 1: Low hazard to waters

### 15.2. Chemical safety assessment

A chemical safety assessment has not been performed for the preparation/for the substances indicated in section 3.



## SECTION 16. Other information

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

|         |   |
|---------|---|
| Repr. 2 | Reproductive toxicity, category 2       |
| H361f   | Suspected of damaging fertility.        |
| EUH031  | Contact with acids liberates toxic gas. |

### LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- ATE: Acute Toxicity Estimate
- CAS: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE: Identifier in ESIS (European archive of existing substances)
- CLP: Regulation (EC) 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: 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: Regulation (EC) 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: Time-weighted average exposure limit
- TWA STEL: Short-term 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 (EC) 1907/2006 (REACH) of the European Parliament
2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
3. Regulation (EU) 2020/878 (II Annex of REACH Regulation)
4. Regulation (EC) 790/2009 (I Atp. CLP) 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
10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament
11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament
12. Regulation (EU) 2016/1179 (IX Atp. CLP)
13. Regulation (EU) 2017/776 (X Atp. CLP)
14. Regulation (EU) 2018/669 (XI Atp. CLP)
15. Regulation (EU) 2019/521 (XII Atp. CLP)
16. Delegated Regulation (UE) 2018/1480 (XIII Atp. CLP)
17. Regulation (EU) 2019/1148
18. Delegated Regulation (UE) 2020/217 (XIV Atp. CLP)
19. Delegated Regulation (UE) 2020/1182 (XV Atp. CLP)
20. Delegated Regulation (UE) 2021/643 (XVI Atp. CLP)
21. Delegated Regulation (UE) 2021/849 (XVII Atp. CLP)
22. Delegated Regulation (UE) 2022/692 (XVIII Atp. CLP)

- The Merck Index. - 10th Edition
- Handling Chemical Safety
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology

[SECTION 16. Other information](#) ... / >>

- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- IFA GESTIS website
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

**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.

**CALCULATION METHODS FOR CLASSIFICATION**

Chemical and physical hazards: Product classification derives from criteria established by the CLP Regulation, Annex I, Part 2. The data for evaluation of chemical-physical properties are reported in section 9.

Health hazards: Product classification is based on calculation methods as per Annex I of CLP, Part 3, unless determined otherwise in Section 11.

Environmental hazards: Product classification is based on calculation methods as per Annex I of CLP, Part 4, unless determined otherwise in Section 12.

**Changes to previous review:**

The following sections were modified:

09.