



**NH4MI-R1D - DETERMINATION OF AMMONIA REAGENT 1D PREDOSED SOLUTION****SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**

- 1.1 Product identifier:** NH4MI-R1D - DETERMINATION OF AMMONIA REAGENT 1D PREDOSED SOLUTION
- Other means of identification:**  
Non-applicable
- 1.2 Relevant identified uses of the substance or mixture and uses advised against:**  
Relevant uses: Used in Spectrophotometry. For industrial user only.  
Uses advised against: All uses not specified in this section or in section 7.3
- 1.3 Details of the supplier of the safety data sheet:**  
3S Analyzers Srl  
Via Molino Nuovo 12  
16036 Avegno - Ge - Italy  
Phone: +390185799024  
SDS@3s-analyzers.eu  
www.3s-analyzers.eu
- 1.4 Emergency telephone number:**

**SECTION 2: HAZARDS IDENTIFICATION \*\***

- 2.1 Classification of the substance or mixture:**  
**CLP Regulation (EC) No 1272/2008:**  
Classification of this product has been carried out in accordance with CLP Regulation (EC) No 1272/2008.  
Aquatic Acute 1: Hazardous to the aquatic environment, acute hazard, Category 1, H400  
Aquatic Chronic 3: Hazardous to the aquatic environment, long-term hazard, Category 3, H412  
Eye Dam. 1: Serious eye damage, Category 1, H318  
Skin Irrit. 2: Skin irritation, Category 2, H315
- 2.2 Label elements:**  
**CLP Regulation (EC) No 1272/2008:**  
**Danger**
- 

- Hazard statements:**  
H315 - Causes skin irritation.  
H318 - Causes serious eye damage.  
H410 - Very toxic to aquatic life with long lasting effects.
- Precautionary statements:**  
P264: Wash thoroughly after handling.  
P273: Avoid release to the environment.  
P280: Wear protective gloves/protective clothing/eye protection/protective footwear.  
P302+P352: IF ON SKIN: Wash with plenty of water.  
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P310: Immediately call a poison center/doctor.  
P391: Collect spillage.  
P501: Dispose of contents/container in accordance with regulations on hazardous waste or packaging and packaging waste respectively.
- Substances that contribute to the classification**  
sodium hypochlorite, solution Cl active (10% < Cl < 20%)
- 2.3 Other hazards:**  
Product does not meet PBT/vPvB criteria  
Endocrine-disrupting properties: The product does not meet the criteria.

\*\* Changes with regards to the previous version

\*\* Changes with regards to the previous version

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**NH4MI-R1D - DETERMINATION OF AMMONIA REAGENT 1D PREDOSED SOLUTION****SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS \*\*****3.1 Substance:**

Non-applicable

**3.2 Mixture:****Chemical description:** Mixture of substances**Components:**

In accordance with Annex II of Regulation (EC) No 1907/2006 (point 3), the product contains:

Identification	Chemical name/Classification	Concentration
CAS: 7681-52-9 EC: 231-668-3 Index: 017-011-00-1 REACH: 01-2119488154-34-XXXX	<b>sodium hypochlorite, solution Cl active (10% &lt; Cl &lt; 20%)<sup>(1)</sup></b> Self-classified Regulation 1272/2008 Aquatic Acute 1: H400; Aquatic Chronic 2: H411; Eye Dam. 1: H318; Met. Corr. 1: H290; Skin Corr. 1B: H314; EUH031 - Danger	2,5 - <10 %

<sup>(1)</sup> Substances presenting a health or environmental hazard which meet criteria laid down in Regulation (EU) No. 2020/878

To obtain more information on the hazards of the substances consult sections 11, 12 and 16.

**Other information:**

Identification	M-factor
sodium hypochlorite, solution Cl active (10% < Cl < 20%)	Acute 10
CAS: 7681-52-9 EC: 231-668-3	Chronic 1

**\*\* Changes with regards to the previous version****SECTION 4: FIRST AID MEASURES****4.1 Description of first aid measures:**

The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the SDS of this product.

**By inhalation:**

This product is not classified as hazardous through inhalation. However, in case of intoxication symptoms it is recommended to remove the person affected from the area of exposure, provide clean air and keep at rest. Request medical attention if symptoms persist.

**By skin contact:**

Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

**By eye contact:**

Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, in which case this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

**By ingestion/aspiration:**

Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. Keep the person affected at rest. Rinse out the mouth and throat, as they may have been affected during ingestion.

**4.2 Most important symptoms and effects, both acute and delayed:**

Acute and delayed effects are indicated in sections 2 and 11.

**4.3 Indication of any immediate medical attention and special treatment needed:**

Non-applicable

**SECTION 5: FIREFIGHTING MEASURES****5.1 Extinguishing media:****Suitable extinguishing media:**

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**NH4MI-R1D - DETERMINATION OF AMMONIA REAGENT 1D PREDOSED SOLUTION****SECTION 5: FIREFIGHTING MEASURES (continued)**

Product is non-flammable under normal conditions of storage, handling and use. In the case of combustion as a result of improper handling, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems.

**Unsuitable extinguishing media:**

Non-applicable

**5.2 Special hazards arising from the substance or mixture:**

As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

**5.3 Advice for firefighters:**

Depending on the magnitude of the fire it may be necessary to use full protective clothing and self-contained breathing apparatus (SCBA). Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...) in accordance with Directive 89/654/EC.

**Additional provisions:**

Act in accordance with the Internal Emergency Plan and the Information Sheets on actions to take after an accident or other emergencies. Eliminate all sources of ignition. In case of fire, cool the storage containers and tanks for products susceptible to combustion, explosion or BLEVE as a result of high temperatures. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

**SECTION 6: ACCIDENTAL RELEASE MEASURES****6.1 Personal precautions, protective equipment and emergency procedures:****For non-emergency personnel:**

Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Evacuate the area and keep out those who do not have protection.

**For emergency responders:**

Wear protective equipment. Keep unprotected persons away. See section 8.

**6.2 Environmental precautions:**

Avoid at all cost any type of spillage into an aqueous medium. Contain the product absorbed appropriately in hermetically sealed containers. Notify the relevant authority in case of exposure to the general public or the environment.

**6.3 Methods and material for containment and cleaning up:**

It is recommended:

Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

**6.4 Reference to other sections:**

See sections 8 and 13.

**SECTION 7: HANDLING AND STORAGE****7.1 Precautions for safe handling:****A.- General precautions for safe use**

Comply with the current legislation concerning the prevention of industrial risks with regards manually handling weights. Maintain order, cleanliness and dispose of using safe methods (section 6).

**B.- Technical recommendations for the prevention of fires and explosions**

Product is non-flammable under normal conditions of storage, handling and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.

**C.- Technical recommendations on general occupational hygiene**

Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

**D.- Technical recommendations to prevent environmental risks**

Due to the danger of this product for the environment it is recommended to use it within an area containing contamination control barriers in case of spillage, as well as having absorbent material in close proximity.

**7.2 Conditions for safe storage, including any incompatibilities:**

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**NH4MI-R1D - DETERMINATION OF AMMONIA REAGENT 1D PREDOSED SOLUTION****SECTION 7: HANDLING AND STORAGE (continued)****A.- Technical measures for storage**

Minimum Temp.: 5 °C

Maximum Temp.: 20 °C

**B.- General conditions for storage**

Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

**7.3 Specific end use(s):**

Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION****8.1 Control parameters:**

Substances whose occupational exposure limits have to be monitored in the workplace (European OEL, not country-specific legislation):

There are no applicable occupational exposure limits for the substances contained in the product

**DNEL (Workers):**

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
sodium hypochlorite, solution Cl active (10% < Cl < 20%) CAS: 7681-52-9 EC: 231-668-3	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Inhalation	3,1 mg/m <sup>3</sup>	3,1 mg/m <sup>3</sup>	1,55 mg/m <sup>3</sup>	1,55 mg/m <sup>3</sup>

**DNEL (General population):**

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
sodium hypochlorite, solution Cl active (10% < Cl < 20%) CAS: 7681-52-9 EC: 231-668-3	Oral	Non-applicable	Non-applicable	0,26 mg/kg	Non-applicable
	Dermal	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Inhalation	3,1 mg/m <sup>3</sup>	3,1 mg/m <sup>3</sup>	1,55 mg/m <sup>3</sup>	1,55 mg/m <sup>3</sup>

**PNEC:**

Identification				
sodium hypochlorite, solution Cl active (10% < Cl < 20%) CAS: 7681-52-9 EC: 231-668-3	STP	4,69 mg/L	Fresh water	0,00021 mg/L
	Soil	Non-applicable	Marine water	0,00042 mg/L
	Intermittent	0,00026 mg/L	Sediment (Fresh water)	Non-applicable
	Oral	0,0111 g/kg	Sediment (Marine water)	Non-applicable



**8.2 Exposure controls:****A.- Individual protection measures, such as personal protective equipment**

As a preventative measure it is recommended to use basic Personal Protective Equipment, with the corresponding <<CE marking>> in accordance with Regulation (EU) 2016/425. For more information on Personal Protective Equipment (storage, use, cleaning, maintenance, class of protection,...) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation which needs some specification from the labour risk prevention services as it is not known whether the company has additional measures at its disposal.

**B.- Respiratory protection**

The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

**C.- Specific protection for the hands**

Pictogram	PPE	Labelling	CEN Standard	Remarks
 Mandatory hand protection	Chemical protective gloves (Material: Nitrile, Breakthrough time: > 480 min, Thickness: 0.5 mm)		EN ISO 21420:2020	Replace the gloves at any sign of deterioration.

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application.

**D.- Eye and face protection**



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## Safety data sheet



This SDS is an English translation of COMMISSION REGULATION (EU) 2020/878, without any country-specific legislation

### NH4MI-R1D - DETERMINATION OF AMMONIA REAGENT 1D PREDOSED SOLUTION



#### SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

Pictogram	PPE	Labelling	CEN Standard	Remarks
 Mandatory face protection	Panoramic glasses against splash/projections.		EN 166:2002 EN ISO 4007:2018	Clean daily and disinfect periodically according to the manufacturer's instructions. Use if there is a risk of splashing.

#### E.- Body protection

Pictogram	PPE	Labelling	CEN Standard	Remarks
	Work clothing			Replace before any evidence of deterioration. For periods of prolonged exposure to the product for professional/industrial users CE III is recommended, in accordance with the regulations in EN ISO 6529:2013, EN ISO 6530:2005, EN ISO 13688:2013, EN 464:1994.
	Anti-slip work shoes		EN ISO 20347:2012	Replace before any evidence of deterioration. For periods of prolonged exposure to the product for professional/industrial users CE III is recommended, in accordance with the regulations in EN ISO 20345:2012 y EN 13832-1:2007

#### F.- Additional emergency measures

Emergency measure	Standards	Emergency measure	Standards
 Emergency shower	ANSI Z358-1 ISO 3864-1:2011, ISO 3864-4:2011	 Eyewash stations	DIN 12 899 ISO 3864-1:2011, ISO 3864-4:2011

#### Environmental exposure controls:

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

#### Volatile organic compounds:

With regard to Directive 2010/75/EU, this product has the following characteristics:

V.O.C. (Supply):	0 % weight
V.O.C. density at 20 °C:	0 kg/m <sup>3</sup> (0 g/L)
Average carbon number:	Non-applicable
Average molecular weight:	Non-applicable

#### SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

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

For complete information see the product datasheet.

##### Appearance:

Physical state at 20 °C:	Liquid
Appearance:	Colorless
Colour:	Colourless
Odour:	Chlorine
Odour threshold:	Non-applicable *

##### Volatility:

Boiling point at atmospheric pressure:	100 °C
Vapour pressure at 20 °C:	2350 Pa
Vapour pressure at 50 °C:	12381,01 Pa (12,38 kPa)
Evaporation rate at 20 °C:	Non-applicable *

##### Product description:

Density at 20 °C:	1037 kg/m <sup>3</sup>
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\*Not relevant due to the nature of the product, not providing information property of its hazards.

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**NH4MI-R1D - DETERMINATION OF AMMONIA REAGENT 1D PREDOSED SOLUTION****SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)**

Relative density at 20 °C:	1,037
Dynamic viscosity at 20 °C:	1,1 cP
Kinematic viscosity at 20 °C:	1,06 mm²/s
Kinematic viscosity at 40 °C:	Non-applicable *
Concentration:	Non-applicable *
pH:	Non-applicable *
Vapour density at 20 °C:	Non-applicable *
Partition coefficient n-octanol/water 20 °C:	Non-applicable *
Solubility in water at 20 °C:	Non-applicable *
Solubility properties:	Non-applicable *
Decomposition temperature:	Non-applicable *
Melting point/freezing point:	Non-applicable *
<b>Flammability:</b>	
Flash Point:	Non Flammable (>60 °C)
Flammability (solid, gas):	Non-applicable *
Autoignition temperature:	Non-applicable *
Lower flammability limit:	Non-applicable *
Upper flammability limit:	Non-applicable *
<b>Particle characteristics:</b>	
Median equivalent diameter:	Non-applicable

**9.2 Other information:****Information with regard to physical hazard classes:**

Explosive properties:	Non-applicable *
Oxidising properties:	Non-applicable *
Corrosive to metals:	Non-applicable *
Heat of combustion:	Non-applicable *
Aerosols-total percentage (by mass) of flammable components:	Non-applicable *

**Other safety characteristics:**

Surface tension at 20 °C:	Non-applicable *
Refraction index:	Non-applicable *

\*Not relevant due to the nature of the product, not providing information property of its hazards.

**SECTION 10: STABILITY AND REACTIVITY****10.1 Reactivity:**

No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7 from Safety Data Sheet.

**10.2 Chemical stability:**

Chemically stable under the indicated conditions of storage, handling and use.

**10.3 Possibility of hazardous reactions:**

Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

**10.4 Conditions to avoid:**

Applicable for handling and storage at room temperature:

Shock and friction	Contact with air	Increase in temperature	Sunlight	Humidity
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable

**10.5 Incompatible materials:**

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**NH4MI-R1D - DETERMINATION OF AMMONIA REAGENT 1D PREDOSED SOLUTION****SECTION 10: STABILITY AND REACTIVITY (continued)**

Acids	Water	Oxidising materials	Combustible materials	Others
Precaution	Not applicable	Precaution	Not applicable	NH3, Produces toxic gases

**10.6 Hazardous decomposition products:**

See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO<sub>2</sub>), carbon monoxide and other organic compounds.

**SECTION 11: TOXICOLOGICAL INFORMATION \*\*****11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008:**

The experimental information related to the toxicological properties of the product itself is not available

**Dangerous health implications:**

In case of exposure that is repetitive, prolonged or at concentrations higher than the recommended occupational exposure limits, adverse effects on health may result, depending on the means of exposure:

**A- Ingestion (acute effect):**

- Acute toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for consumption. For more information see section 3
- Corrosivity/Irritability: The consumption of a considerable dose can cause irritation in the throat, abdominal pain, nausea and vomiting.

**B- Inhalation (acute effect):**

- Acute toxicity : Based on available data, the classification criteria are not met. However, it contains substances classified as hazardous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Based on available data, the classification criteria are not met. However, it does contain substances classified as hazardous for this effect. For more information see section 3.

**C- Contact with the skin and the eyes (acute effect):**

- Contact with the skin: Produces skin inflammation.
- Contact with the eyes: Produces serious eye damage after contact.

**D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):**

- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for the effects mentioned. For more information see section 3.  
IARC: sodium hypochlorite, solution Cl active (10% < Cl < 20%) (3)
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

**E- Sensitizing effects:**

- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous with sensitising effects. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

**F- Specific target organ toxicity (STOT) - single exposure:**

Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

**G- Specific target organ toxicity (STOT)-repeated exposure:**

- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

**H- Aspiration hazard:**

Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

**Other information:**

Non-applicable

**\*\* Changes with regards to the previous version**

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**NH4MI-R1D - DETERMINATION OF AMMONIA REAGENT 1D PREDOSED SOLUTION****SECTION 11: TOXICOLOGICAL INFORMATION \*\* (continued)****Specific toxicology information on the substances:**

Identification	Acute toxicity		Genus
sodium hypochlorite, solution Cl active (10% < Cl < 20%)	LD50 oral	8910 mg/kg	Rat
CAS: 7681-52-9	LD50 dermal	Non-applicable	
EC: 231-668-3	LC50 inhalation	Non-applicable	

**Acute Toxicity Estimate (ATE mix):**

ATE mix		Ingredient(s) of unknown toxicity
Oral	>2000 mg/kg (Calculation method)	Non-applicable
Dermal	>2000 mg/kg (Calculation method)	Non-applicable
Inhalation	>20 mg/L (4 h) (Calculation method)	Non-applicable

**11.2 Information on other hazards:****Endocrine disrupting properties**

Endocrine-disrupting properties: The product does not meet the criteria.

**Other information**

Non-applicable

\*\* Changes with regards to the previous version

**SECTION 12: ECOLOGICAL INFORMATION \*\***

The experimental information related to the eco-toxicological properties of the product itself is not available

Very toxic to aquatic life.

**12.1 Toxicity:****Acute toxicity:**

Identification	Concentration		Species	Genus
sodium hypochlorite, solution Cl active (10% < Cl < 20%)	LC50	>0.1 - 1 mg/L (96 h)		Fish
CAS: 7681-52-9	EC50	>0.1 - 1 mg/L (48 h)		Crustacean
EC: 231-668-3	EC50	>0.1 - 1 mg/L (72 h)		Algae

**12.2 Persistence and degradability:**

Not available

**12.3 Bioaccumulative potential:**

Not available

**12.4 Mobility in soil:**

Not available

**12.5 Results of PBT and vPvB assessment:**

Product does not meet PBT/vPvB criteria

**12.6 Endocrine disrupting properties:**

Endocrine-disrupting properties: The product does not meet the criteria.

**12.7 Other adverse effects:**

Not described

\*\* Changes with regards to the previous version

**SECTION 13: DISPOSAL CONSIDERATIONS****13.1 Waste treatment methods:**

Code	Description	Waste class (Regulation (EU) No 1357/2014)
16 05 06*	laboratory chemicals, consisting of or containing hazardous substances, including mixtures of laboratory chemicals	Dangerous

**Type of waste (Regulation (EU) No 1357/2014):**

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**NH4MI-R1D - DETERMINATION OF AMMONIA REAGENT 1D PREDOSED SOLUTION****SECTION 13: DISPOSAL CONSIDERATIONS (continued)**

HP14 Ecotoxic

**Waste management (disposal and evaluation):**

Consult the authorized waste service manager on the assessment and disposal operations in accordance with Annex 1 and Annex 2 (Directive 2008/98/EC). As under 15 01 (2014/955/EC) of the code and in case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. Waste should not be disposed of to drains. See paragraph 6.2.

**Regulations related to waste management:**

In accordance with Annex II of Regulation (EC) No 1907/2006 (REACH) the community or state provisions related to waste management are stated

Community legislation: Directive 2008/98/EC, 2014/955/EU, Regulation (EU) No 1357/2014

**SECTION 14: TRANSPORT INFORMATION \*\*****Transport of dangerous goods by land:**

With regard to ADR 2023 and RID 2023:



- |  |  |
|--|--|
| <b>14.1 UN number or ID number:</b>                                  | UN3082   |
| <b>14.2 UN proper shipping name:</b>                                 | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (sodium hypochlorite, solution Cl active (10% < Cl < 20%)) |
| <b>14.3 Transport hazard class(es):</b>                              | 9  |
| Labels:  | 9  |
| <b>14.4 Packing group:</b>   | III  |
| <b>14.5 Environmental hazards:</b>                                   | Yes  |
| <b>14.6 Special precautions for user</b>                             |  |
| Special regulations:   | 274, 335, 375, 601   |
| Tunnel restriction code:   | -  |
| Physico-Chemical properties:   | see section 9  |
| Limited quantities:  | 5 L  |
| <b>14.7 Maritime transport in bulk according to IMO instruments:</b> | Non-applicable   |

**Transport of dangerous goods by sea:**

With regard to IMDG 40-20:



- |  |  |
|--|--|
| <b>14.1 UN number or ID number:</b>                                  | UN3082   |
| <b>14.2 UN proper shipping name:</b>                                 | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (sodium hypochlorite, solution Cl active (10% < Cl < 20%)) |
| <b>14.3 Transport hazard class(es):</b>                              | 9  |
| Labels:  | 9  |
| <b>14.4 Packing group:</b>   | III  |
| <b>14.5 Marine pollutant:</b>  | Yes  |
| <b>14.6 Special precautions for user</b>                             |  |
| Special regulations:   | 335, 969, 274  |
| EmS Codes:   | F-A, S-F   |
| Physico-Chemical properties:   | see section 9  |
| Limited quantities:  | 5 L  |
| Segregation group:   | Non-applicable   |
| <b>14.7 Maritime transport in bulk according to IMO instruments:</b> | Non-applicable   |

**Transport of dangerous goods by air:**

With regard to IATA/ICAO 2023:

\*\* Changes with regards to the previous version

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**NH4MI-R1D - DETERMINATION OF AMMONIA REAGENT 1D PREDOSED SOLUTION****SECTION 14: TRANSPORT INFORMATION \*\* (continued)**

- 14.1 UN number or ID number:** UN3082
- 14.2 UN proper shipping name:** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (sodium hypochlorite, solution Cl active (10% < Cl < 20%))
- 14.3 Transport hazard class(es):** 9
- Labels:** 9
- 14.4 Packing group:** III
- 14.5 Environmental hazards:** Yes
- 14.6 Special precautions for user**
- Physico-Chemical properties: see section 9
- 14.7 Maritime transport in bulk according to IMO instruments:** Non-applicable

*\*\* Changes with regards to the previous version*

**SECTION 15: REGULATORY INFORMATION \*\*****15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture:**

Candidate substances for authorisation under the Regulation (EC) No 1907/2006 (REACH): Non-applicable

Substances included in Annex XIV of REACH ("Authorisation List") and sunset date: Non-applicable

Regulation (EC) No 1005/2009, about substances that deplete the ozone layer: Non-applicable

Article 95, REGULATION (EU) No 528/2012: sodium hypochlorite, solution Cl active (10% < Cl < 20%) (Product-type 1, 2, 3, 4, 5, 11, 12)

REGULATION (EU) No 649/2012, in relation to the import and export of hazardous chemical products: Non-applicable

**Seveso III:**

Section	Description	Lower-tier requirements	Upper-tier requirements
E1	ENVIRONMENTAL HAZARDS	100	200

**Limitations to commercialisation and the use of certain dangerous substances and mixtures (Annex XVII REACH, etc ....):**

Shall not be used in:

- ornamental articles intended to produce light or colour effects by means of different phases, for example in ornamental lamps and ashtrays,
- tricks and jokes,
- games for one or more participants, or any article intended to be used as such, even with ornamental aspects.

**Specific provisions in terms of protecting people or the environment:**

It is recommended to use the information included in this safety data sheet as a basis for conducting workplace-specific risk assessments in order to establish the necessary risk prevention measures for the handling, use, storage and disposal of this product.

**Other legislation:**

The product could be affected by sectorial legislation

**15.2 Chemical safety assessment:**

The supplier has not carried out evaluation of chemical safety.

*\*\* Changes with regards to the previous version*

**SECTION 16: OTHER INFORMATION \*\*****Legislation related to safety data sheets:**

The SDS shall be supplied in an official language of the country where the product is placed on the market. This safety data sheet has been designed in accordance with ANNEX II-Guide to the compilation of safety data sheets of Regulation (EC) No 1907/2006 (COMMISSION REGULATION (EU) 2020/878).

**Modifications related to the previous Safety Data Sheet which concerns the ways of managing risks.:**

*\*\* Changes with regards to the previous version*

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**NH4MI-R1D - DETERMINATION OF AMMONIA REAGENT 1D PREDOSED SOLUTION****SECTION 16: OTHER INFORMATION \*\* (continued)****COMPOSITION/INFORMATION ON INGREDIENTS (SECTION 3, SECTION 11, SECTION 12):**

- New declared substances  
sodium hypochlorite, solution Cl active (10% < Cl < 20%) (7681-52-9)
- Removed substances  
Disodium tartrate (6106-24-7)

**Substances that contribute to the classification (SECTION 2):**

- New declared substances  
sodium hypochlorite, solution Cl active (10% < Cl < 20%) (7681-52-9)

**CLP Regulation (EC) No 1272/2008 (SECTION 2, SECTION 16):**

- Pictograms
- Hazard statements
- Precautionary statements

**TRANSPORT INFORMATION (SECTION 14):**

- UN number
- Packing group

**REGULATORY INFORMATION (SECTION 15):**

- Limitations to commercialisation and the use of certain dangerous substances and mixtures (Annex XVII REACH, etc ....)

**Texts of the legislative phrases mentioned in section 2:**

H315: Causes skin irritation.

H318: Causes serious eye damage.

H400: Very toxic to aquatic life.

H412: Harmful to aquatic life with long lasting effects.

**Texts of the legislative phrases mentioned in section 3:**

The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

**CLP Regulation (EC) No 1272/2008:**

Aquatic Acute 1: H400 - Very toxic to aquatic life.

Aquatic Chronic 2: H411 - Toxic to aquatic life with long lasting effects.

Eye Dam. 1: H318 - Causes serious eye damage.

Met. Corr. 1: H290 - May be corrosive to metals.

Skin Corr. 1B: H314 - Causes severe skin burns and eye damage.

**Classification procedure:**

Skin Irrit. 2: Calculation method

Eye Dam. 1: Calculation method

Aquatic Acute 1: Calculation method

Aquatic Chronic 3: Calculation method

**Advice related to training:**

Training is recommended in order to prevent industrial risks for staff using this product and to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

**Principal bibliographical sources:**

<http://echa.europa.eu>

<http://eur-lex.europa.eu>

**Abbreviations and acronyms:**

ADR: European agreement concerning the international carriage of dangerous goods by road

IMDG: International maritime dangerous goods code

IATA: International Air Transport Association

ICAO: International Civil Aviation Organisation

COD: Chemical Oxygen Demand

BOD5: 5day biochemical oxygen demand

BCF: Bioconcentration factor

LD50: Lethal Dose 50

LC50: Lethal Concentration 50

EC50: Effective concentration 50

LogPOW: Octanolwater partition coefficient

Koc: Partition coefficient of organic carbon

UFI: unique formula identifier

IARC: International Agency for Research on Cancer

**\*\* Changes with regards to the previous version**

The information contained in this safety data sheet is based on sources, technical knowledge and current legislation at European and state level, without being able to guarantee its accuracy. This information cannot be considered a guarantee of the properties of the product, it is simply a description of the security requirements. The occupational methodology and conditions for users of this product are not within our awareness or control, and it is ultimately the responsibility of the user to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information on this safety data sheet only refers to this product, which should not be used for needs other than those specified.

- END OF SAFETY DATA SHEET -