**SAFETY DATA SHEET**

# SDS ARPU110906

Version: D05-EN (22-08-2023)

According to Regulation (EC) 1907/2006, Article 31

## Section 1 Identification of substance and company

**1.1 Product identifier**

| | |
|---|---|
| **Trade name** | Supplier - RR Mechatronics: RPU-Disinfectant<br>Manufacturer - Boom B.V.: Sodium hypochlorite 60-185g/l active Chlorine |
| **Article number** | Supplier - RR Mechatronics: SARPU110906 (2xARPU110906)<br>Manufacturer - Boom B.V.: 76050474 |
| **1.2 Relevant identified uses of the substance or mixture and uses advised against** | Laboratory chemicals. |
| **1.3 Details of the supplier of the safety data sheet** | Mechatronics Instruments B.V.<br>P.O. Box 225<br>1620 AE Hoorn<br>The Netherlands<br>**Phone:** +31 229 291 129 |
| **Informing department** | **Contact:** Support Department<br>**Email:** support@rrmechatronics.com |
| **1.4 Emergency telephone number** | Manufacturer - Boom B.V.<br>During normal office hours (8 a.m. till 5:00 p.m., GMT+1)<br>Phone: +31 522 268 700 |

## Section 2 Hazards identification

| | |
|---|---|
| **2.1 Classification of the substance or mixture:** | Classification according to Regulation (EC) 1272/2008 (CLP):<br>Corrosive to metals, Category 1, H290<br>Skin corrosion/irritation, Category 1, Subcategory 1A, H314<br>Serious eye damage/eye irritation, Category 1, H318<br>Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation, H335<br>Hazardous to the aquatic environment — Acute Hazard, Category 1, H400<br>Hazardous to the aquatic environment - Chronic Hazard, Category 3, H412 |
| **Adverse physicochemical, human health and environmental effects** | May be corrosive to metals. May cause respiratory irritation. Causes severe skin burns and eye damage. Very toxic to aquatic life. |

| | |
|---|---|
| **2.2 Label elements** | Labelling according Regulation (EC) 1272/2008 [CLP] |
| **Hazard pictograms** | <br>GHS05 GHS07 GHS09 |
| **Signal word** (CLP) | **Danger** |
| **Hazardous ingredients** | Sodium hypochlorite 60-185g/l active Chlorine; Sodium carbonate anhydrous, technical grade; Sodium hydroxide, pellets, technical |
| **Hazard statements (CLP)** | H290: May be corrosive to metals<br>H314: Causes severe skin burns and eye damage.<br>H335: May cause respiratory irritation<br>H410: Very toxic to aquatic life with long lasting effects. |
| **Precautionary statements (CLP)** | P261 - Avoid breathing vapours.<br>P280 - Wear protective gloves, protective clothing, eye protection.<br>P303+P361+P353+P310 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.. Immediately call a POISON CENTER, a doctor.<br>P305+P351+P338+P310 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER, a doctor.<br>P321 - Specific treatment (see supplemental first aid instruction on this label).<br>P391 - Collect spillage. |
| **EUH-statements** | EUH031: Contact with acids liberates toxic gas |
| **UFI** | P7P7-Q54G-627Y-N5KM |
| **2.3 Other hazards** | None under normal conditions |

## Section 3 Composition / data on components

**3.1 Substances** Not applicable.

**3.2 Mixtures**

| NAME | PRODUCT IDENTIFIER | % | CLASSIFICATION ACCORDING TO REGULATION (EC) NO. 1272/2008 [CLP] |
|---|---|---|---|
| Sodium carbonate anhydrous, technical grade | (CAS-No.) 497-19-8<br>(EC-No.) 207-838-8<br>(EC Index-No.) 011-005-00-2 | ≥ 1 – < 5 | Skin Corr. 1, H314 Eye Dam. 1, H318 |
| Sodium hypochlorite 60-185g/l active Chlorine | (CAS-No.) 7681-52-9<br>(EC-No.) 231-668-3 | ≥ 1 – < 5 | Met. Corr. 1, H290<br>Skin Corr. 1A, H314<br>Eye Dam. 1, H318<br>STOT SE 3, H335<br>Aquatic Acute 1, H400<br>Aquatic Chronic 1, H410 |
| Sodium hydroxide, pellets, technical | (CAS-No.) 1310-73-2<br>(EC-No.) 215-185-5<br>(EC Index-No.) 011-002-00-6<br>(REACH-no) 01-2119457892-27 | ≥ 1 – < 5 | Acute Tox. 4 (Oral), H302<br>Skin Corr. 1A, H314<br>Eye Dam. 1, H318 |

| SPECIFIC CONCENTRATION LIMITS: | | |
|---|---|---|
| Sodium hydroxide, pellets, technical | (CAS-No.) 1310-73-2<br>(EC-No.) 215-185-5<br>(EC Index-No.) 011-002-00-6<br>(REACH-no) 01-2119457892-27 | ( 0,5 ≤C < 2) Skin Irrit. 2, H315<br>( 0,5 ≤C < 2) Eye Irrit. 2, H319<br>( 2 ≤C < 5) Skin Corr. 1B, H314<br>( 5 ≤C ≤ 100) Skin Corr. 1A, H314 |

**Additional information** For the wording of the listed risk phrases refer to section 16.

## Section 4 First aid measures

**4.1 Description of first aid measures**

**General information** Call a doctor or poison control centre immediately.

**After inhalation** Remove person to fresh air and keep comfortable for breathing. Call a poison center or a doctor if you feel unwell.

**After skin contact** Rinse skin with water/shower. Take off immediately all contaminated clothing. Call a physician immediately.

**After eye contact** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.Continue rinsing. Call a physician

| | |
|---|---|
| | immediately. |
| **After swallowing** | Rinse mouth. Do not promote vomiting. Call a physician immediately. |
| **4.2 Most important symptoms and effects, both acute and delayed** | |
| Symptoms/effects after inhalation | May cause respiratory irritation. |
| Symptoms/effects after skin contact | Burns |
| Symptoms/effects after eye contact | Serious damage to eyes |
| Symptoms/effects after ingestion | Burns |
| **4.3 Indication of any immediate medical attention and special treatment needed** | Treat symptomatically. |

## Section 5 Fire fighting measures

| | |
|---|---|
| **5.1 Extinguishing media** | Water spray. Dry powder. Foam. Carbon dioxide. |
| **5.2 Special hazards arising from the substance or mixture** | |
| Hazardous decomposition products in case of fire | Toxic fumes may be released. |
| **5.3 Advice for firefighters** | Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing. |

## Section 6 Accidental release measures

| | |
|---|---|
| **6.1 Personal precautions, protective equipment and emergency procedures** | |
| 6.1.1 For non-emergency personnel | Ventilate spillage area. Avoid contact with skin and eyes. Do not breathe vapours. |
| 6.1.2 For emergency personnel | Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection". |
| **6.2 Environmental precautions** | Avoid release to the environment. |
| **6.3 Methods and material for containment and cleaning up** | |
| **For containment** | Collect spillage |
| **Methods for cleaning up** | Take up liquid spill into absorbent material. |

**Other information** Dispose of materials or solid residues at an authorized site.

**6.4 Reference to other sections** For further information refer to section 13.

## Section 7 Handling and storage

**7.1 Precautions for safe handling** Use only outdoors or in a well-ventilated area. Avoid contact with skin and eyes. Do not breathe vapours. Wear personal protective equipment.

**Hygiene measures** Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product.
Always wash hands after handling the product.

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

**Storage conditions** Store in corrosive resistant container with a resistant inner liner.
Keep only in original container.
Store locked up. Store in a well-ventilated place. Keep container tightly closed. Keep cool.

**Incompatible materials** Metals

**7.3 Specific end use(s)** No additional information available

## Section 8 Exposure controls/personal protection

**8.1 Control parameters** No additional information available

**8.2 Exposure control**

**Appropriate engineering controls** Ensure good ventilation at the work station.

**Protection of hands** Protective gloves.

| Material | Permeation | Thickness (mm) |
|---|---|---|
| Nitrile rubber (NBR) | 6 (> 480 min) | 0.4 |
| Polyvinylchloride (PVC) | 6 (> 480 min) | 0.7 |

**Eye protection** Tightly sealed safety glasses.

**Skin and body protection** Wear suitable protective clothing

**Respiratory Protection** In case of insufficient ventilation wear suitable respiratory equipment.

**Personal protective equipment symbol(s)**

**Environmental exposure controls** Avoid release to the environment.

## Section 9 Physical and chemical properties

**9.1 Information on basic physical and chemical properties**

| | |
|---|---|
| **General information** | |
| **Appearance** | |
| **Form** | Liquid. |
| **Colour** | Yellow. |
| **Odeur** | Characteristic. |
| **Odeur threshold** | No data available |
| **pH-value at 20°C** | 12 |
| **Melting point/freezing point** | -20-30°C/No data available |
| **Boiling temperature** | 100°C |
| **Flash point** | No data available |
| **Auto-ignition temperature** | No data available |
| **Flammability (solid, gas)** | Not applicable. |
| **Vapour pressure** | 23 hPa (20°C) |
| **Density at 20°C:**<br>**Relative density**<br>**Vapour density** | 1.22 g/cm3<br>No data available<br>Not determined. |
| **Solubility(ies)** | |
| **Solubility in water** | Soluble in water |
| **Partition coefficient: n-octanol/water** | No data available |
| **Auto-Ignition temperature** | No data available |
| **Decomposition temperature** | No data available |
| **Viscocity**<br>**Dynamic**<br>**Kinematic** | <br>No data available<br>No data available |
| **Explosive properties** | No data available |
| **Oxidizing properties:** | No data available |
| **9.2 Other information** | No further relevant information available |

## Section 10 Stability and reactivity

| | |
|---|---|
| **10.1 Reactivity** | The product is non-reactive under normal conditions of use, storage and transport. |
| **10.2 Chemical stability** | Stable under normal conditions |
| **10.3 Possibility of hazardous reactions** | No dangerous reactions known under normal conditions of use. |
| **10.4 Conditions to avoid** | No dangerous reactions known under normal conditions of use (see section 7) |
| **10.5 Incompatible materials** | Metals |

| | |
|---|---|
| **10.6 Hazardous decomposition products** | Under normal conditions of storage and use, hazardous decomposition products should not be produced. |

## Section 11 Toxicological information

**11.1 Information on toxicological effects**

| | |
|---|---|
| **Acute toxicity** (oral) | Not classified |
| **Acute toxicity** (dermal) | Not classified |
| **Acute toxicity** (inhalation) | Not classified |
| **LD/LC50-values:** | Sodium hypochlorite 60-185g/l active Chlorine (7681-52-9)<br>LD50 oral rat 5800<br><br>Sodium carbonate anhydrous, technical grade (497-19-8)<br>LD50 oral rat: 4090 mg/kg<br><br>Sodium hydroxide, pellets, technical (1310-73-2)<br>LD50 oral rat: 2000 mg/kg |
| **Skin corrosion/irritation** | Causes severe skin burns<br>PH: 12 |
| **Serious eye damage/eye irritation** | Causes serious eye damage.<br>PH: 12 |
| **Respiratory or skin sensitation** | Not classified |
| **Germ cell mutagenicity** | Not classified |
| **Carcinogenicity** | Not classified |
| **Reproductive toxicity** | Not classified |
| **STOT-single exposure** | May cause respiratory irritation |
| **STOT-repeated exposure** | Not classified |
| **Aspiration hazard** | Not classified |

## Section 12 Ecological information

**12. 1 Toxicity**

| | |
|---|---|
| Ecology general | Very toxic to aquatic life. |
| Hazardous to the aquatic environment, short-term (acute) | Very toxic to aquatic life. |
| Hazardous to the aquatic environment, long-term (chronic) | Harmful to aquatic life with long lasting effects |
| Not rapidly degradable | |
| **12. 2 Persistence and degradability** | No additional information available |
| **12. 3 Bioaccumulative potential** | No additional information available |
| **12. 4 Mobility in soil** | No additional information available |
| **12. 5 Results of PBT and vPvB assessment** | No additional information available |
| **12. 6 Other adverse effects** | No additional information available |

## Section 13 Disposal considerations

| | |
|---|---|
| **13.1 Waste treatment methods** | Dispose of contents/container in accordance with licensed collector's sorting instructions. |

## Section 14 Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

| ADR | IMDG | IATA | ADN | RID |
|---|---|---|---|---|
| **14.1 UN number** | | | | |
| UN 1791 | UN 1791 | UN 1791 | UN 1791 | UN 1791 |
| **14.2 UN proper shipping name** | | | | |
| HYPOCHLORITE SOLUTION | HYPOCHLORITE SOLUTION | Hypochlorite solution | HYPOCHLORITE SOLUTION | HYPOCHLORITE SOLUTION |
| *Transport document description* | | | | |
| UN 1791 HYPOCHLORITE SOLUTION, 8, II, (E), ENVIRONMENTALLY HAZARDOUS | UN 1791 HYPOCHLORITE SOLUTION, 8, II, MARINE POLLUTANT/ENVIRONMENTALLY HAZARDOUS | UN 1791 Hypochlorite solution, 8, II, ENVIRONMENTALLY HAZARDOUS | UN 1791 HYPOCHLORITE SOLUTION, 8, II, ENVIRONMENTALLY HAZARDOUS | UN 1791 HYPOCHLORITE SOLUTION, 8, II, ENVIRONMENTALLY HAZARDOUS |

## 14.3 Transport hazard class(es)

| | | | | |
|---|---|---|---|---|
| 8 | 8 | 8 | 8 | 8 |

## 14.4 Packing group

| | | | | |
|---|---|---|---|---|
| II | II | II | II | II |

## 14.5 Environmental hazards

| | | | | |
|---|---|---|---|---|
| Dangerous for the environment : Yes | Dangerous for the environment : Yes<br>Marine pollutant : Yes | Dangerous for the environment : Yes | Dangerous for the environment : Yes | Dangerous for the environment : Yes |

No supplementary information available

## 14.6 Special precautions for user

*Overland transport*

| | |
|---|---|
| Classification code (ADN) | C9 |
| Special provisions (ADN) | 521 |
| Limited quantities (ADN) | 1l |
| Excepted quantities (ADN) | E2 |
| Packing instructions (ADR) | P001, IBC02 |
| Special packing provisions (ADR) | PP10, B5 |
| Mixed packing provisions (ADR) | MP15 |
| Portable tank and bulk container instructions (ADR) | T7 |
| Portable tank and bulk container special provisions (ADR) | TP2, TP24 |
| Tank code (ADR) | L4BV(+) |
| Tank special provisions (ADR) | TE11 |
| Vehicle for tank carriage | AT |
| Transport category (ADR) | 2 |
| Hazard identification number | 80 |

| | |
|---|---|
| (Kemler No.) | |
| Orange plates | 80<br>1791 |
| Tunnel restriction code (ADR) | E |

*Transport by sea*

| | |
|---|---|
| Packing instructions (IMDG) | P001 |
| Special packing provisions (IMDG) | PP10 |
| IBC packing instructions (IMDG) | IBC02 |
| IBC special provisions (IMDG) | B5 |
| Tank instructions (IMDG) | T7 |
| Tank special provisions (IMDG) | TP2, TP24 |
| EmS-No. (Fire) | F-A |
| EmS-No. (Spillage) | S-B |
| Stowage category (IMDG) | B |
| Segregation (IMDG) | SG20 |
| Properties and observations (IMDG) | Liquid with chlorine odour. In contact with acids, evolves very irritating and corrosive gases. Mildly corrosive to most metals. Causes burns to skin, eyes and mucous membranes |

*Air transport*

| | |
|---|---|
| PCA Excepted quantities (IATA) | E2 |
| PCA Limited quantities (IATA) | Y840 |
| PCA limited quantity max net quantity (IATA) | 0.5L |
| PCA packing instructions (IATA) | 851 |
| PCA max net quantity (IATA) | 1L |
| CAO packing instructions (IATA) | 855 |
| CAO max net quantity (IATA) | 30L |

| | |
|---|---|
| Special provisions (IATA) | A3, A803 |
| ERG code (IATA) | 8L |

*Inland waterway transport*

| | |
|---|---|
| Classification code (ADN) | C9 |
| Special provisions (ADN) | 521 |
| Limited quantities (ADN) | 1 L |
| Excepted quantities (ADN) | E2 |
| Equipment required (ADN) | PP, EP |
| Number of blue cones/lights (ADN) | 0 |

*Rail transport*

| | |
|---|---|
| Classification code (RID) | C9 |
| Special provisions (RID) | 521 |
| Limited quantities (RID) | 1 L |
| Excepted quantities (RID) | E2 |
| Packing instructions (RID) | P001, IBC02 |
| Special packing provisions (RID) | PP10, B5 |
| Mixed packing provisions (RID) | MP15 |
| Portable tank and bulk container instructions (RID) | T7 |
| Portable tank and bulk container special provisions (RID) | TP2, TP24 |
| Tank codes for RID tanks (RID) | L4BV(+) |
| Special provisions for RID tanks (RID) | TE11, TU42 |
| Transport category (RID) | 2 |
| Colis express (express parcels) (RID) | CE6 |
| Hazard identification number (RID) | 80 |
| **14.7 Transport in bulk according to Annex II of Marpol and the IBC Code** | Not applicable. |

## Section 15 Regulatory information

**15.1 Safety, health and environmental regulations/legislation specific for the substance or**

**mixture**

| | |
|---|---|
| **Designation according to EC guidelines:** | Contains no REACH substances with Annex XVII restrictions<br>Contains no substance on the REACH candidate list Contains no REACH Annex XIV substances<br>Contains no substance subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.<br>Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants |

| Seveso III Part I (Categories of dangerous substances) | Qualifying quantity (tonnes) | |
|---|---|---|
| | Lower-tier | Upper-tier |
| E1 Hazardous to the Aquatic Environment in Category Acute 1 or Chronic 1 | 100 | 200 |

| | |
|---|---|
| **15.2 Chemical safety assessment** | A chemical safety assessment has not been carried out |

## Section 16 Other information

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

**Full text of H- and EUH-statements**

| | |
|---|---|
| Acute Tox. 4 (Oral) | Acute toxicity (oral), Category 4 |
| Aquatic Acute 1 | Hazardous to the aquatic environment — Acute Hazard, Category 1 |
| Aquatic Chronic 1 | Hazardous to the aquatic environment — Chronic Hazard, Category 1 |
| Eye Dam. 1 | Serious eye damage/eye irritation, Category 1 |
| Eye Irrit. 2 | Serious eye damage/eye irritation, Category 2 |
| Met. Corr. 1 | Corrosive to metals, Category 1 |
| Skin Corr. 1 | Skin corrosion/irritation, Category 1 |
| Skin Corr. 1A | Skin corrosion/irritation, Category 1, Sub-Category 1A |
| Skin Irrit. 2 | Skin corrosion/irritation, Category 2 |
| STOT SE 3 | Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation |
| H290 | May be corrosive to metals. |
| H302 | Harmful if swallowed. |
| H314 | Causes severe skin burns and eye damage. |
| H315 | Causes skin irritation. |
| H318 | Causes serious eye damage. |
| H319 | Causes serious eye irritation. |

| | |
|---|---|
| H335 | May cause respiratory irritation. |
| H400 | Very toxic to aquatic life. |
| H410 | Very toxic to aquatic life with long lasting effects. |
| H412 | Harmful to aquatic life with long lasting effects. |
| EUH031 | Contact with acids liberates toxic gas. |