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| Trading name: | BOUIN'S SOLUTION | | | | |
|---------------|------------------|----------------|-------------|----------|---|
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| 1.1. | Product identifier | | | | |
|------|------------------------------------|-----------------|--|---|--|
| | Trading name: | BOUIN'S SO | LUTION | | |
| | Chemical name: | - | | | |
| | Catalogue number: | BOU-OT-X** | ŧ | | |
| 1.2. | Relevant identified uses | of the substa | ance or mix | xture and uses advised against | |
| | Uses: | | Aqueous s tissue fixa | solution of picric acid, formaldehyde and acetic acid for tion. | |
| | Uses advised against: | | Only the i | dentified uses are advised. | |
| | Reason why uses advised against: r | | The product is intended for use only as an <i>in vitro</i> diagnostic medical device, registered at the Agency for Medicinal Products and Medical Devices and there is no reason to use it for other purposes. | | |
| 1.3. | Details of the supplier of | f the safety c | lata sheet | | |
| | Supplier: Bi | | BioGnost Ltd. | | |
| | Address: | Мє | Medjugorska 59, Zagreb | | |
| | Telephone number: | +3 | +385 1 2409997 | | |
| | Fax no.: | +3 | +385 1 2404039 | | |
| | e-mail of competent per | rson: <u>ms</u> | msds@biognost.hr | | |
| | National contact: - | | _ | | |
| 1.4. | Emergency telephone nu | umber | | | |
| | National Protection and | Rescue Dire | ctorate: | 112 | |
| | Medical information: | | | +385 1 2348 342 | |
| | Other information: | | | - | |

| SECTIO | SECTION 2. Hazards identification | | | | |
|--------|--|---------------------|--|--|--|
| 2.1. | Classification of the substance or mixture | | | | |
| 2.1.1. | Classification according to Regulation (EC) No 127 | 72/2008 (CLP) | | | |
| | Hazard class and category code: | Hazard statements*: | | | |
| | Acute Tox. 4 | H302 | | | |
| | Acute Tox. 4 | H312 | | | |
| | Skin Irr. 2 | H315 | | | |
| | Skin. Sens. 1 | H317 | | | |
| | Eye Irr. 2 | H319 | | | |
| | Acute Tox. 4 | H332 | | | |
| | STOT SE 3 | H335 | | | |
| | Muta. 2 | H341 | | | |
| | Carc. 1B | H350 | | | |



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| 2.1.2. | Additional information | | | | |
|-------------|---|--|--|--|--|
| | Endocrine Disrupting Prop | erties: | | | |
| | No known endocrine disrupt | | | | |
| | Results of PBT and vPvB assessment : According to the results of its assessment, this substance is not a | | | | |
| +Γ f | PBT or a vPvB. | ad atatawa antara an Cartina 10 | | | |
| | Il text of Hazard- and EU Hazar | rd-statements: see Section 16 | | | |
| 2.2. | Label elements | POLITING COLUTION | | | |
| | Product identification: | BOUIN'S SOLUTION | | | |
| | Identification number: | | | | |
| | Authorization no.: | - | | | |
| | Hazard pictograms: | GHS08 GHS07 | | | |
| | Signal word: | Danger | | | |
| | Hazard statements: | H302 + H312 + H332 Harmful if swallowed, in contact with skin or if inhaled. H315 Causes skin irritation. H317 May cause an allergic skin reaction. H319 Causes serious eye irritation. H335 May cause respiratory irritation. H341 Suspected of causing genetic defects. H350 May cause cancer. | | | |
| | Precautionary statements: | P280 Wear protective gloves/protective clothing/eye/protection/face protection. P301+P330+P331 IF SWALLOWED: rinse mouth. DO NOT induce vomiting. P302+P352 IF ON SKIN: Wash with plenty of water and soap. P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P308 + P313 IF exposed or concerned: Get medical advice/attention. | | | |
| | Further information: | - | | | |
| 2.3. | Other hazards | | | | |

SECTION 3. Composition/information on ingredients



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| CAS/ EC/ Index no. | REACH Registration No | Mass % | Identification name | Classification according to Regulation (EC) No 1272/2008 (CLP) |
|--|---------------------------|---------|----------------------|--|
| 50-00-0/ 200-001-8/ 605-001-00-5 | 01-2119488953-20- XXXX | 7 -10 % | formaldehyde, 37% | Acute Tox. 3; H301 Acute Tox. 3; H311 Skin. Corr. 1B; H314 Skin. Sens. 1; H317 Acute Tox. 3; H331 Muta. 2; H341 Carc. 1B; H350 |
| 64-19-7/ 200-580-7/ 607-002-00-6 | - | 4-5% | acetic acid, glacial | Flam. Liq. 3; H226 Skin Corr. 1A; H314 |
| 88-89-1/ 201-865-9/ 609-009-00-X | - | < 1 % | picric acid | Acute Tox. 3; H301 Acute Tox. 3; H311 Acute Tox. 3; H331 |

| SECTI | ON 4. First aid measures | |
|-------|-------------------------------------|---|
| 4.1. | Description of first aid measures | |
| | General notes: | If the suggested first aid measures do not prove sufficient, seek medical attention. |
| | Following inhalation: | Remove person to fresh air. If breathing stops, immediately apply artificial respiration. If breathing difficulties occur, use emergency breathing apparatus. If the symptoms persist, immediately consult a physician. |
| | Following skin contact: | Take off immediately all contaminated clothing. Immediately wash with plenty of water and soap for at least 20 minutes. Seek medical assistance if the symptoms of irritation remain. |
| | Following eye contact: | Rinse out with plenty of water with the eyelid held wide open for at least 10 minutes. If the symptoms remain, immediately call in ophthalmologist. |
| | Following ingestion: | Rinse the oral cavity, drink at most 1-2 glasses of water. Do not induce vomiting. Immediately consult a physician and show the container or label. In case of swallowing large quantities, transport the afflicted person to the hospital. |
| | Self-protection of the first aider: | - |
| 4.2. | Most important symptoms and e | effects, both acute and delayed |
| | Following inhalation: se | itation of the mucous membrane of the nose/throat may occur (burning nsation, urge to sneeze, and runny nose). High concentration may cause fficult breathing, coughing fits, chest tightness, headache, vertigo and owsiness. |



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| | Following skin contact: | Irritation, redness with stinging and pain, skin cracking, rash, swelling, burns, blisters and delayed onset of inflammatory processes may occur. |
|------|----------------------------|---|
| | Following eye contact: | Depending on concentration and exposure time, mucosa stinging, lacrimation, redness and pain may occur, as well as bleeding, delayed onset of inflammatory processes and permanent eyesight damage. |
| | Following ingestion: | Depending on concentration and exposure time, it may lead to stinging and digestive mucus damage, abdominal pain, nausea, vomiting (possibly of bloody content). |
| 4.3. | Indication of any immediat | te medical attention and special treatment needed |
| | - | |

| SECTI | TION 5 Firefighting measures | | | | |
|-------|--|--|--|--|--|
| 5.1. | Extinguishing media | | | | |
| | Suitable extinguishing media: | Small fire - water spray, dry powder, CO ₂ Large fire - water spray or alcohol-resistant foam | | | |
| | Unsuitable extinguishing media: | No information available | | | |
| 5.2. | Special hazards arising from the substance or mixture | | | | |
| | Hazardous combustion products: | Possible liberation of toxic carbon monoxide and formaldehyde gases due to thermal decomposition (increased temperature). Explosive mixtures of formaldehyde vapors and air, and methanol and air also present danger. | | | |
| 5.3. | Advice for firefighters | | | | |
| | Use a self-contained open-circuit compressed air breathing apparatus and fireproof clothing. Cool closed containers exposed to fire with water spray, in order to prevent explosion. | | | | |
| 5.4. | Additional information | | | | |
| | Remove sources of heat and ignition. Do not contaminate the environment with extinguishing media. | | | | |

| SECTIO | SECTION 6. Accidental release measures | | | | |
|--------|---|---|--|--|--|
| 6.1. | Personal precautions, protective equipment and emergency procedures | | | | |
| 6.1.1. | . For non-emergency personnel | | | | |
| | Protective equipment: | Use personal protective equipment (see Section 8). | | | |
| | Accident prevention methods: | Evacuate members of all non-essential personnel and those members without protective equipment. Avoid breathing vapors and avoid contact with skin and eyes. Remove all sources of sparks and ignition. Do not smoke. | | | |
| | Emergency procedures: | Mark the area using proper signs. | | | |
| 6.1.2. | 2. For emergency responders: | | | | |
| | Use protective equipment; in ca (see Section 8). | se of inadequate ventilation use adequate airways protective equipment | | | |



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| 6.2. | Environmental precaut | Environmental precautions: | | | | | |
|--------|---|---|--|--|--|--|--|
| | • | Do not dispose of in sewage, drainage system and waterways. In case of large spillage contact National Protection and Rescue Directorate (NPRD) on 112. | | | | | |
| 6.3. | Methods and material | for containment and cleaning up | | | | | |
| 6.3.1. | For creating barriers, covering and sealing: | Sand or clay barriers. | | | | | |
| 6.3.2. | Cleaning up: | Where possible, the substance can be absorbed by using inflammable material (sand, diatomaceous earth, vermiculite). Place the waste material in tightly closed impermeable containers. Store the substance in well ventilated storage rooms until disposal. Submit for disposal to the legal persons authorized by the Ministry of Environmental and Nature Protection. After disposal of the products, wash the area and involved materials with water. | | | | | |
| 6.3.3. | Other information: | Do not use tools that may cause sparks. | | | | | |
| 6.4. | Reference to other sections | | | | | | |
| | See Section 7 for information about secure handling. See Section 8 for information about personal protective equipment. See Section 13 for information about containment. | | | | | | |

| SECTIO | CTION 7. Handling and storage | | | | | | |
|--------|--|--|--|--|--|--|--|
| 7.1. | Precautions for safe handling | | | | | | |
| 7.1.1. | Protection measures | | | | | | |
| | Measures to prevent fire: | | Use in well ventilated storage rooms. Keep away from sources of heat and ignition. Carry out measures for preventing static electricity. | | | | |
| | Measures to prevent aerosol and dust generation | on: | Secure proper ventilation. | | | | |
| | Measures to protect the environment: | | Prevent spilling into the sewage system and waterways. | | | | |
| | Other measures: | | - | | | | |
| 7.1.2. | Advice on general occupational hygiene: | | | | | | |
| | Do not eat, drink or smoke in the workspace. The | norou | ghly wash hands after work and before eating. | | | | |
| 7.2. | Conditions for safe storage, including any incor | npatib | pilities | | | | |
| | Technical measures and storage conditions: | Keep in tightly closed and upright set containers in ventilated storage rooms at temperatures ranging f 15 to 25 °C. | | | | | |
| | Packaging materials: | Man | ufacturer's original packaging. | | | | |
| | Requirements for storage rooms and vessels: | Keep away from food and drink. Keep the containers tightly closed. | | | | | |



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| | Advices for storage equipment: | The storage must be made of hard material; floors must be resistant to chemicals. There must be no drain that directly leads into sewage system. Secure proper ventilation. |
|------|--|---|
| | Further information on storage conditions: | Do not place the unused material in the storage room and do not use empty containers for storing other chemicals. Do not store with incompatible materials (see Section 10). |
| 7.3. | Specific end use(s) | |
| | Recommendations: | - |
| | Industrial sector specific solutions: | - |

| 8.1. Control | paramete | ers | | | | | |
|---------------------|----------|-----------------------|----------|-----------------------|--|---|-----------------------------|
| Substance | | CASI | No | | Occupational exposure limit values/short term values | | Biological limit values |
| | | | | ppm | mg/m³ | | - |
| Formaldehyde | | 50-00 |)-0 | 0.3/0.6 | 0.37/0.74 | | - |
| Acetic acid, glacia | al | 64-19 | 9-7 | 10/20 | 25/50 | | - |
| - | | | | | | | |
| Substance - | | | | | | | |
| EC No: - | _ | CAS No: | - | | | _ | |
| DNEL | | · | | | | | |
| | | | | Industrial | | | |
| Route of exposu | ire: | Acute effect local | effe | Acute ect systemic | Chro | | Chronic effect systemic |
| Oral | - | | - | , | - | | - |
| Inhalation | | 5 mg/m³ maldehyde) | - | | 0.375 mg/n (formaldeh | | 9 mg/m³ (formaldehyde) |
| Dermal | - | | - | | 0.037 mg/c (formaldeh | | 240 mg/kg (formaldehyde) |
| Critical physical p | arameter | s: solubility, fla | mmabilit | ty, corrosivity: | - | | |
| | | | | Consumer | | | |
| Route of exposu | ıre: | Acute effect local | effe | Acute ect systemic | Chro effect | | Chronic effect systemic |
| Oral | - | | - | | - | | 4.1 mg/kg (formaldehyde) |



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| Inhalation | | - | - | | (formaldehyde) (formald | | 3.2 mg/m ³ (formaldeh 120 mg/kg | nyde) |
| Dermal | | - | - | | (formaldehyde) | | (formaldel | |
| PNEC | | | | | | | | |
| Environme | ntal prote | ction target | | PNEC | | | | |
| Fresh wate | er | | | 0.44 mg/ | /l (formaldehyde) | | | |
| Freshwate | r sediment | :S | | 2.3 mg/k | kg (formaldehyde) | | | |
| Marine wa | ter | | | 0.44 mg/ | /l (formaldehyde) | | | |
| Marine sec | diments | | | 2.3 mg/kg (formaldehyde) | | | | |
| Food chair | า | | | No information available | | | | |
| | | ewage treatment | | 0.19 mg/l (formaldehyde) | | | | |
| Soil (agricu | ultural) | | | | (g (formaldehyde) | | | |
| Air | | | | No information available | | | | |
| | | | | | | | | |
| 8.2. | | re controls | | | | | | |
| 8.2.1. | Approp | riate engineering co | ntrols | | | | | |
| | | nce/mixture related n exposure during ide | | Use the product in well ventilated rooms. Use personal protective equipment. Do not eat, drink or smoke in the workspace. | | | • | |
| | Structur | ral measures to preve | ent exposure: | No information available | | | | |
| | Organis exposur | ganisational measures to prevent osure: | | | Organization of work in order to reduce other worker's influence during work process. | | | er worker's |
| | Technic | al measures to preve | Secure proper workspace ventilation in order to keep concentration levels in air below permitted levels. | | | • | | |
| 8.2.2. | Persona | I protection equipm | ent | | | | | |
| 8.2.2.1. | Eye and | face protection: | levels o | Safety glasses that stick to face (EN 166) or visor in case of low levels of concentration in air; protective gas mask that covers entire face in case of higher levels of concentration in air. | | | covers the | |
| 8.2.2.2. | Skin pro | otection | | | | | | |



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| | Hand protection: | Protective gloves must be according to the Directive 89/686/EEC and standard EN 374. Full contact: Glove material: nitrile rubber Glove thickness: 0.40 mm Time until perforation: > 480 min Splash contact: Gloves material: polychloroprene Glove thickness: 0.65 mm Time until perforation: >240 min |
|----------|---|--|
| | Other skin protection: | Wear protective suit with long sleeves (EN 340) that protects from chemicals and shoes that cover the entire foot. |
| 8.2.2.3. | Respiratory protection: | Full face mask (EN 136) or half mask (EN 140) equipped with a recommended "ABEK" (EN 14387) filter used when concentration levels exceed GVI. |
| 8.2.2.4. | Thermal hazards: | No information available |
| 8.2.3. | Environmental exposure controls | |
| | Substance/mixture related measures to prevent exposure: | See Section 6 |
| | Structural measures to prevent exposure: | Use modern equipment. |
| | Organisational measures to prevent exposure: | Adapt the work process to the required working conditions of the workplace. |
| | Technical measures to prevent exposure: | See Section 6 |

| SECTIO | SECTION 9. Physical and chemical properties | | | | | | |
|--------|---|----------------------------------|--------------------------|--|--|--|--|
| 9.1. | Information on basic physical and chemical properties | | | | | | |
| | | Value | Method | | | | |
| | Physical state: | liquid | No information available | | | | |
| | Colour: | yellow | No information available | | | | |
| | Odour/odour threshold: | pungent/no information available | No information available | | | | |
| | Melting point / freezing point: | No information available | No information available | | | | |
| | Boiling point or initial boiling point and boiling range: | No information available | No information available | | | | |
| | Flammability: | No information available | No information available | | | | |
| | Lower and upper explosion limit: | No information available | No information available | | | | |



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| | Flash point: | No information available | No information available |
|------|--|--------------------------|--------------------------|
| | Auto-ignition temperature: | No information available | No information available |
| | Decomposition temperature: | No information available | No information available |
| | pH: | No information available | No information available |
| | Kinematic viscosity: | No information available | No information available |
| | Solubility: | No information available | No information available |
| | Partition coefficient n- octanol/water (log value): | No information available | No information available |
| | Vapour pressure: | No information available | No information available |
| | Density and/or relative density | No information available | No information available |
| | Relative vapour density: | No information available | No information available |
| | Particle characteristics: | No information available | No information available |
| 9.2. | Other information | | |
| | - | | |

| SECTION | ON 10.: Stability and reactivity | |
|---------|-------------------------------------|---|
| 10.1. | Reactivity: | See subsections 10.3 through 10.5. |
| 10.2. | Chemical stability: | The product is chemically stable under standard ambient conditions of storing and using (room temperature). |
| 10.3. | Possibility of hazardous reactions: | Explosion hazard when in contact with: nitric acid, hydrogen peroxide, nitromethane, acids, phenol, nitrogen dioxide Exothermic reactions occur with the following substances: bases, nitrides, polymerization initiators, sodium hydroxide, potassium permanganate, furfuryl alcohol, highly oxidizing agents, perchloric acid with aniline, hydrochloric acid, magnesium carbonate. |
| 10.4. | Conditions to avoid: | Sources of heat, sparks, ignition, and low temperature. |
| 10.5. | Incompatible materials: | Highly oxidizing agents, acids, bases and different metals, steel manufactured by melting, copper. |
| 10.6. | Hazardous decomposition products: | Carbon oxides. |

| SECTION 11. Toxicological information | | | | | | | | | |
|--|-----------------|---------|---|---------------|---------|--|--|--|--|
| 11.1. Information on toxicological effects | | | | | | | | | |
| Acute toxic | Acute toxicity: | | | | | | | | |
| Route of exposure: | Method | Species | Dose LD ₅₀ /LC ₅₀ or ATE _{mix} | Exposure time | Results | | | | |



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| Oral exposure: | No information available | rat | LD ₅₀ | | formatio ailable | | 200 mg/kg rmaldehyde) |
| Dermal: | No information available | rabbit | LD ₅₀ | | formatio ailable | | 270 mg/kg rmaldehyde) |
| Inhalation exposure: | rat $ C_{50} $ 4 h 0.58 mg/l (form | | | | | | |
| Specific t | arget organ toxicity – | single exposur | e (STOT SI | ≣): | | | |
| 3 | Sp | pecific effects | | Т | arget or | gan | Note |
| Oral exposure: | No information av | ailable | | - | | - | |
| Dermal exposure: | No information av | ailable | | - | | - | |
| Inhalation exposure: | No information av | ailable | | - | | - | |
| Irritation | and corrosion Expos | sure time | S p e c i e | Evaluation | n | Method | Note |
| Skin corrosion/irri | tation No informa | ation available | | | | - | Causes skin irritation. |
| Serious irritation to | o eyes: No informa | ation available | | | | - | Causes serious eye irritation. |
| Sensitizat | ion | | | | | | |
| Dermal exposure: Inhalation exposure: | May cause allergic | | ation. | | | | |
| 1 | | | | | | | |
| Symptom | ns related to the physi | cal, chemical a | nd toxicol | ogical chara | acteristic | S | |
| Oral exposure: | If swallowed it c stomach perfora | | e burns to | mouth and | d throat, | and danger o | of esophagus and |
| Dermal exposure: | Depending on constinging and pa | | • | | | • | y sensation of |



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| Inhalation exposi | ure: and shortness | epending on concentration and exposure time, it may lead to mucosa irritation, cough, d shortness of breath. Inhalation may cause formation of oedema in respiratory tract d may cause damage. | | | | | | | |
|------------------------|--------------------------|--|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--|--|--|
| Eye exposure: | Causes serious hazard. | s eye damage | e. Fumes may ca | use lacrimal irrit | ation (tearing), k | olindness | | | |
| Repeate | d dose toxicity (suba | cute, subchro | onic, chronic) | | | | | | |
| , , | Dose | Exposure time | Species | Method | Evaluation | Note | | | |
| Subacute oral | No information available | No informati on available | No information available | No information available | No information available | No information available | | | |
| Subacute dermal | No information available | No informati on available | No information available | No information available | No information available | No information available | | | |
| Subacute inhalation | No information available | No informati on available | No information available | No information available | No information available | No information available | | | |
| Subchronic oral | No information available | No informati on available | No information available | No information available | No information available | No information available | | | |
| Subchronic dermal | No information available | No informati on available | No information available | No information available | No information available | No information available | | | |
| Subchronic inhalation | No information available | No informati on available | No information available | No information available | No information available | No information available | | | |
| Chronic oral | No information available | No informati on available | No information available | No information available | No information available | No information available | | | |
| Chronic dermal | No information available | No informati on available | No information available | No information available | No information available | No information available | | | |



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| Chronic inhalation | No information available | No informati on available | No information available | No information available | No information available | No information available | | |
| Specific | target organ toxicity - | - repeated e | xposure (STOT | RE): | | | | |
| · | Specific effe | ects | | Target organ | | Note | | |
| Subacute oral | No information availa | able | No informa | ation available | | lo information vailable | | |
| Subacute dermal | No information availa | able | No informa | ation available | | lo information vailable | | |
| Subacute inhalation | No information availa | able | No informa | ation available | | lo information vailable | | |
| Subchronic oral | No information availa | able | No informa | ation available | | No information available | | |
| Subchronic dermal | No information availa | able | No informa | ation available | | No information available | | |
| Subchronic inhalation | No information availa | able | No informa | ation available | | lo information vailable | | |
| Chronic oral | No information availa | able | No informa | ation available | | lo information vailable | | |
| Chronic dermal | No information availa | able | No informa | ation available | | lo information vailable | | |
| Chronic inhalation | No information availa | able | No informa | ation available | | lo information vailable | | |
| CMD of | facts (carsing agnicity) | mutaganicity | " roproductivo | tovicity | | | | |
| | fects (carcinogenicity; i | mutagement | | to have carcinog | enic notential | for humans | | |
| | enicity <i>in vitro</i> : | | | nation available. | jorne potential | TOT HAIHUITS. | | |
| Genoto | | | | nation available. | | | | |
| | enicity <i>in vivo</i> : | | | nation available. | | | | |
| | ell mutagenicity: | | | d of causing gene | tic defects. | | | |
| | uctive toxicity: | | | nation available. | | | | |
| Summa propert | • | of the CN | MR No inform | No information available. | | | | |
| 11.2. Informa | ition on other hazards: | | | | | | | |
| | ne disrupting propertion | | | | | | | |



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| | No known endocrine disrupting properties that affect human health. |
|---------|--|
| 11.2.2. | Other informations: |
| | - |

| 12.1. | Toxici | ty | | | | | | | | | |
|------------------------------|-----------|------------------|------------------|----------------|----------------------------------|-----------------|----------------------------|--------------------------------|--------------------------|-------------|------|
| Acute (| (short-te | erm) | Dose | Exposu time | re | Species | Metho | d | Evaluation | | Note |
| Fish | | LC ₅₀ | 96 hour | S | Pimephales promelas | - | | 24.1 – 41 mg/ (formaldehyde | | - | |
| Crustacea: | | EC ₅₀ | 48 hour | 'S | water flea (Daphnia magna) | - | 2 | 2 mg/l (formaldehyde) | | - | |
| Algae/aquatic plants | | IC ₅₀ | 72 hour | S | algae | - | 2 | 2.5 mg/l (form | naldehyde) | - | |
| Other organisms | | - | - | | - | - | - | - | | - | |
| Chronic (long-term) toxicity | | Dose | Exposu time | re | Species | Method | | d Evaluation | | Note | |
| Fish | | LC ₅₀ | 96 hour | S | - | - | No informati | | n available | - | |
| Crustacea: | | EC ₅₀ | 48 hour | S | - | - | 1 | No informatio | n available | - | |
| Algae/ | aquatic | plants | IC ₅₀ | 72 hour | S | - | - | 1 | No informatio | n available | - |
| Other | organisr | ns | - | - | | - | - | ſ | No informatio | n available | - |
| | | | | | | | | | | | |
| 12.2. | Persis | tence a | nd degrada | bility | | | | | | | |
| | Abiot | ic degra | adation | | | | | | | | |
| | | | radation ha | | | Method | | Evaluation | | tion | Note |
| Marine | | | formation av | | | o information a | | | No information available | | - |
| Fresh v | vater | | formation av | | | o information a | | No information available | | | - |
| Air | | - | formation av | | | o information a | | No information available | | | - |
| Soil | | No inf | formation av | /ailable | No | o information a | vailable | No | information a | available | _ |
| | | | | | | | | | | | |
| | - | gradati | | | | | - | | | | |
| | radatio | | Time (da | - | | Method | | | luation | N | lote |
| | | information | on available | | | | No information - available | | - | | |



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| Trading name: | | | | BOUIN'S SOLUTION | | | | | | | | |
|---|-----------------|-------|-------------------|---------------------------|------------------|--------------------------------|--------------------------------|--------------------|------------------------------|------------------------------|-----|------|
| Produc | ct code: | • | BOU-C | DT-X** | | Revision date: | | 22 De | 2 Dec 2022 Versi | | n: | 7 |
| | | | | | | | | | | | | |
| 12.3. | Bioaco | cumu | lative po | otential | | | | | | | | |
| | Partiti | on co | oefficien | t: n-octai | nol/wate | er (log l | Kow): | | | | | |
| Valu | ue | Co | ncentrat | ion | рН | °C | Method | | Evalua | ation | | Note |
| No informa availabl | | | informat lable | tion - | | _ | No informati available | | o inform vailable | nation | - | |
| V | Biocor /alue | ncent | tration fa | actor (BC Species | F) | | Method | | Evaluatio | on | | Note |
| No info availabl | ormation le | 1 | No info | ormation le | No ir availa | | formation able | No ir availa | nformation able | on | _ | |
| | Chron | ic ec | otoxicity | , | | | | · | | | | |
| | Value | е | | Dose | | osure me | Species | Met | hod | Evaluatio | n | Note |
| Chronic toxicity on fish | | fish | LC ₅₀ | No infor n avail | rmatio lable | No information available | No infori on availa | mati i | No nformatio available | n - | | |
| Chronic toxicity on crustacea (Daphnia) | | | | EC ₅₀ | No infor n | rmatio | No information available | No infori on | mati i | No nformatio available | n - | |

| 12.4. | Mobility in soil | | | | | | | | | | |
|-------|--|--------------------------------|--------------------------|--------------------------|------|--|--|--|--|--|--|
| | Known or predicted distribution in environmental compartments: | | | | | | | | | | |
| | | | | | | | | | | | |
| | Surface tension | on: | | | | | | | | | |
| | Value | °C | Concentration | Method | Note | | | | | | |
| | No information available | No information available | No information available | No information available | - | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

available

available



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|---------------|------------------|----------------|-------------|----------|---|--|--|--|--|
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| | Adsorption / desorption | | | | |
|----------|---|--------------------------|--------------------------|--------------------------|------------------|
| Transpo | A/D coefficient Henry's constant | log Kow | Evaporation rate | Method | Note |
| Soil-wat | No information available | No information available | No information available | No information available | - |
| Water-a | ir No information available | No information available | No information available | No information available | - |
| Soil-air | No information available | No information available | No information available | No information available | - |
| 12.5. | Results of PBT and vPvB asse | essment | | | |
| | No information available | | | | |
| | | | | | |
| 12.6. | Endocrine disrupting proper | | | | |
| | The substance/mixture does according to REACH Article Regulation (EU) 2018/605 at | 57(f) or Commission | n Delegated regulat | | |
| | | | | | |
| 12.7. | Other adverse effects | | | | |
| | No information available | | | | |
| SECTIO | N 13. Disposal consideratio | ns | | | |
| 13.1. | Waste treatment methods | | | | |
| 13.1.1. | Product/Packaging disposal: | | | | |
| | Submit for disposal to the legal person authorized by the Ministry of Environmental and Nature Protection. | | | | and Nature |
| 13.1.2. | Waste codes/waste design | ations according to | o Law: | | |
| | 15 01 10*: packaging that contains residual hazardous substances or is contaminated with hazardous substances | | | | d with hazardous |
| 13.1.3. | Waste treatment – relevan | t information: | | | |
| | No information available | | | | |
| 13.1.4. | Sawaga disposal rolovan | t information: | | | |
| 13.1.4. | Sewage disposal – relevan | | ao system | | |
| | Waste must not be dispos | ed of fillo the sewa | ge system. | | |



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| 13.1.5. | Other disposal recomme | endations: | | |
|----------------------------|---|-------------------------------------|--|--|
| | Do not dispose of the product's remains into the sewage system. Submit the remains to the collectors authorized by the ministry in charge. Do not dispose of the packaging into the sewage system. Submit the packaging to the collectors authorized by the ministry in charge. | | | |
| 13.1.6. | Relevant Community pro | Relevant Community provisions: | | |
| | - | | | |
| | | | | |
| SECTIO | N 14. Transport informati | ion | | |
| | Transporting/shipment by | road (ADR) | | |
| UN num | nber: | Not subject to marking regulations. | | |
| UN prop | oer shipping name: | - | | |
| Transpo | ort hazard class(es): | - | | |
| Packing | group: | - | | |
| Environ | mentally hazardous: | - | | |
| Special | precautions for user: | - | | |
| | Transporting/shipment by | rail (RID) | | |
| UN num | nber: | Not subject to marking regulations. | | |
| UN prop | per shipping name: | - | | |
| Transpo | ort hazard class(es): | - | | |
| Packing | group: | - | | |
| Environi | mentally hazardous: | - | | |
| Special | precautions for user: | - | | |
| | Inland waterway transport | (ADN) | | |
| UN num | nber: | Not subject to marking regulations. | | |
| UN prop | per shipping name: | - | | |
| Transpo | ort hazard class(es): | - | | |
| Packing | group: | - | | |
| Environi | mentally hazardous: | - | | |
| Special | precautions for user: | - | | |
| | Transporting/shipment by | sea (IMDG) | | |
| UN num | nber: | Not subject to marking regulations. | | |
| UN prop | per shipping name: | - | | |
| Transpo | ort hazard class(es): | | | |
| Packing | group: | - | | |
| Environmentally hazardous: | | | | |



Special precautions for user:

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| Trading name: | | ROUIN | 'S SOLUTION | | | |
|----------------------------|---|------------------------|-----------------------|----------|---|--|
| Product code: | BOU-OT-X** | Revision date: | 22 Dec 2022 | Version: | 7 | |
| Special precaution | ns for user: | _ | | | | |
| | according to Annex II B and the IBC code: | _ | | | | |
| Transpor | ting/shipment by air (IC | CAO-TI/IATA-DGR) | | | | |
| UN number: | | 3334 | | | | |
| UN proper shippi | ng name: | Aviation regulated lie | quid, n.o.s. (formalo | lehyde) | | |
| Transport hazard | class(es): | 9 | | | | |
| Packing group: | | III | | | | |
| Environmentally hazardous: | | None | | | | |
| | | | | | | |

Further information: Formaldehyde solutions, nonflammable, containing less than 25% of formaldehyde do not adhere to the ADR regulations.

| 5.1. Safety, health and enviror | nmental regulations/legislation specific for the substance or mixture |
|---------------------------------|--|
| EU regulations | |
| Authorization and/or rest | rictions of use |
| Authorizations: | - |
| Restrictions: | - |
| Other EU regulations: | Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC; Directive 2004/42/CE of the European Parliament and of the Council of 21 April 2004 on the limitation of emissions of volatile organic compounds due to the use of organic solvents in certain paints and varnishes and vehicle refinishing products and amending Directive 1999/13/EC; Council Directive 98/24/EC of 7 April 1998 on the protection of the health and safety of workers from the risks related to chemical agents at work; Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006; REACH Restrictions on the manufacturing, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII); |



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| | National legislation: | Chemicals Act, Regulation on classification, packaging and labeling of dangerous substances, Ordinance on occupational exposure limit values and on biological limit values, Regulation on categories, types and classification of waste with a waste catalog and list of hazardous waste, Ordinance on writing Material safety data sheet, Transport of Hazardous Substances Act |
|-------|----------------------------|---|
| 15.2. | Chemical safety assessment | |
| | - | |

| SECTIO | ON 16 | Other information | |
|----------|--|---------------------------|---|
| 16.1. | Indi | cation of changes: | - |
| 16.2. | Abb | previations and acronyms: | ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road) IMDG: International Maritime Code for Dangerous Goods IATA: International Air Transport Association GHS: Globally Harmonised System of Classification and Labelling of Chemicals EINECS: European Inventory of Existing Commercial Chemical Substances CAS: Chemical Abstracts Service (division of the American Chemical Society) DNEL: Derived No-Effect Level (UK REACH) LC50: Lethal concentration, 50 percent LD50: Lethal dose, 50 percent PBT: Persistent, Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative |
| 16.3. | Key literature references and | | |
| 16.4. | Classification and procedure 1272/2008 (CLP) | | used to derive the classification for mixture according to Regulation (EC) |
| Classifi | catior | according to CLP | Classification procedure |
| - | | | - |
| 16.5. | Rele | evant H statements (numl | per and full text) |
| | | 226 | Flammable liquid and vapor. |
| | | 301+311+331 | Toxic if swallowed, in contact with skin or if inhaled. |
| | | 302+312+332 | Harmful if swallowed, in contact with skin or if inhaled. |
| | | 314 | Causes severe skin burns and eye damage. |
| | H: | 315 | Causes skin irritation. |
| | H: | 317 | May cause allergic skin reaction. |
| | | 319 | Causes serious eye irritation. |
| | | 335 | May cause respiratory irritation. |
| | | 341 | Suspected of causing genetic defects. |
| | | 350 | May cause cancer. |
| 16.6. | Trai | ning advice: | - |



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amended by Regulation (EU) No. 2020/878

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| | | "X" in the product code marks different volumes (different packagings of the product) |
|-------|----------------------|---|
| 16.7. | Further information: | We are not responsible for consequences in case of failure to comply with |
| | | instructions for use or improper use of the product described in this |
| | | material safety data sheet. |

| ANNEX: Exposure scenario resulting to Chemical safety assessment |
|--|
| |

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