


| | | | |
|---------------|--------------------------|----------------------|------------------|
| Trade name: | LADEWIG'S REAGENT | | |
| Product code: | LDWR-OT-X** | Date of compilation: | 14 November 2022 |
| | | Version: | 2 |

| SECTION 1: Identification of the substance/mixture and of the company/undertaking | | |
|------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|
| 1.1. | Product identifier | |
| | Trading name: | LADEWIG'S REAGENT |
| | Chemical name: | - |
| | Product code: | LDWR-OT-X** |
| 1.2. | Relevant identified uses of the substance or mixture and uses advised against | |
| | Uses: | For use with Ladewig Trichrome kit. |
| | Uses advised against: | Only the identified uses are advised. |
| | Reason why uses advised against: | The product is intended for use only as an <i>in vitro</i> diagnostic medical device and there is no reason to use it for other purposes. |
| 1.3. | Details of the supplier of the safety data sheet | |
| | Supplier: | BioGnost Ltd. |
| | Address: | Medjugorska 59, Zagreb |
| | Telephone number: | +385 1 2409997 |
| | Telefax: | +385 1 2404039 |
| | e-mail of competent person: | msds@biognost.hr |
| | National contact: | - |
| 1.4. | Emergency telephone numbers | |
| | National Protection and Rescue Directorate: | 112 |
| | Medical information: | +385 1 2348 342 |
| | Other information: | - |

| SECTION 2. Hazards identification | | |
|---------------------------------------------------------|----------------------------------------------------------------|--------------------|
| 2.1. | Classification of the substance or mixture | |
| 2.1.1. | Classification according to Regulation (EC) No 1272/2008 (CLP) | |
| | Hazard class and category code: | Hazard statement*: |
| | Skin Irr. 2 | H315 |
| | Eye Irr. 2 | H319 |
| 2.1.2. | Additional information | |
| | - | |
| *For the full text of H and EUH phrases see Section 16. | | |
| 2.2. | Label elements | |
| | Product identification: | LADEWIG'S REAGENT |
| | Identification number: | - |
| | Authorisation number: | - |

| | | | | | |
|---------------|--------------------------|----------------------|------------------|----------|---|
| Trade name: | LADEWIG'S REAGENT | | | | |
| Product code: | LDWR-OT-X** | Date of compilation: | 14 November 2022 | Version: | 2 |

| | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Hazard pictograms: |  GHS07 |
| Signal word: | Warning |
| Hazard statement: | H315 Causes skin irritation. H319 Causes serious eye irritation. |
| Precautionary statement: | P280 Wear protective gloves/protective clothing/eye/face protection. P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| Supplemental hazard information (EU): | - |
| 2.3. Other hazards | |
| No known endocrine disrupting properties. This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher. | |

SECTION 3. Composition/information on ingredients

| CAS/EC/ Index number | REACH Registration No | Weight % content (or range) | Identification name | Classification according to Regulation (EC) No 1272/2008 (CLP) |
|-----------------------------------------|-----------------------|-----------------------------|----------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------|
| 3244-88-0/ 221-816-5/ - | - | 1 - 2 % | 3-(1-(4-amino-3-methyl-5-sulphonatophenyl)-1-(4-amino-3-sulphonatophenyl)methylene)cyclohexa-1,4-dienesulphonic acid | Skin Corr. 1B; H314 Eye Dam. 1; H318 |
| 144-62-7/ 205-634-3/ 607-006-00-8 | - | < 1 % | oxalic acid | Acute Tox. 4; H302 Acute Tox. 4; H312 |

SECTION 4. First aid measures

| | |
|-----------------------------------------------|----------------------------------------------------------------------------------------------------------------|
| 4.1. Description of first aid measures | |
| General notes: | Move out of dangerous area. Show this safety data sheet to the doctor and first responders. |
| Following inhalation: | If breathed in, move person into fresh air. If not breathing, give artificial respiration. Get medical advice. |

| | | | | | |
|---------------|--------------------------|----------------------|------------------|----------|---|
| Trade name: | LADEWIG'S REAGENT | | | | |
| Product code: | LDWR-OT-X** | Date of compilation: | 14 November 2022 | Version: | 2 |

| | | |
|--|------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | Following skin contact: | Wash off with soap and plenty of water. If irritation occurs and persists: Get medical advice. |
| | Following eye contact: | Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation occurs and persists: Get medical advice. |
| | Following ingestion: | Never give anything by mouth to an unconscious person. Rinse mouth with water. |
| | Self-protection of the first aider | - |

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

| | | |
|--|-------------------------|----------------------------------------------------------------------------------------------------------------------------|
| | Following inhalation: | According to our findings, chemical, physical and toxicological properties of the substance have not been entirely tested. |
| | Following skin contact: | According to our findings, chemical, physical and toxicological properties of the substance have not been entirely tested. |
| | Following eye contact: | According to our findings, chemical, physical and toxicological properties of the substance have not been entirely tested. |
| | Following ingestion: | According to our findings, chemical, physical and toxicological properties of the substance have not been entirely tested. |

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

| | |
|--|------------------------|
| | Treat symptomatically. |
|--|------------------------|

SECTION 5. Firefighting measures

5.1. Extinguishing media

| | | |
|--|---------------------------------|----------------------------------------------------------------|
| | Suitable extinguishing media: | Use dry chemical, CO ₂ , water spray (FOG) or foam. |
| | Unsuitable extinguishing media: | Avoid solid water stream as it may scatter and spread fire. |

5.2. Special hazards arising from the substance or mixture

| | | |
|--|--------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | Hazardous by products of fire: | Use water spray to cool fire exposed container surfaces and to protect personnel. Thermal decomposition can produce carbon monoxide (highly toxic) and carbon dioxide (an asphyxiant at sufficient concentrations). |
|--|--------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

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 or vapor. |
|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------|

5.4. Additional information

| | |
|--|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | Heating may cause container cracking due to increase in pressure. Remove sources of heat and ignition. Do not contaminate the environment with extinguishing media. |
|--|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|

SECTION 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

| | |
|--------|-----------------------------|
| 6.1.1. | For non-emergency personnel |
|--------|-----------------------------|

| | | | | | |
|---------------|--------------------------|----------------------|------------------|----------|---|
| Trade name: | LADEWIG'S REAGENT | | | | |
| Product code: | LDWR-OT-X** | Date of compilation: | 14 November 2022 | Version: | 2 |

| | | |
|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|
| | Protective equipment: | Use suitable personal protective equipment (see Section 8). |
| | Accident prevention methods: | Evacuate members of all non-essential personnel and those members without protective equipment. |
| | Emergency procedures: | Mark the area using proper signs. |
| 6.1.2. | For emergency responders: | |
| | Use protective equipment; in case of inadequate ventilation use adequate airways protective equipment (see Section 8). | |
| 6.2. | 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 materials for containment and cleaning up | |
| 6.3.1. | Bunding, covering of drains; capping procedures: | Sand or clay barriers. |
| 6.3.2. | Cleaning up: | After removing the product, use water to wash the work space and used materials. |
| 6.3.3. | Other information: | No information available. |
| 6.4. | Reference to other sections | |
| | - | |

SECTION 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. Refer to the manufacturer's recommendations. |
| | Measures to prevent aerosol and dust generation: | 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. Thoroughly wash hands after work and before eating. | |
| 7.2. | Conditions for safe storage, including any incompatibilities | |
| | Technical measures and storage conditions: | Keep in tightly closed and upright set containers in a well ventilated storage rooms at temperatures ranging from 15 to 25 °C. |
| | Packaging materials: | Manufacturer's original packaging. |
| | Requirements for storage rooms and vessels: | Keep away from food and drink. Keep the containers tightly closed. |

| | | | | | |
|---------------|--------------------------|----------------------|------------------|----------|---|
| Trade name: | LADEWIG'S REAGENT | | | | |
| Product code: | LDWR-OT-X** | Date of compilation: | 14 November 2022 | Version: | 2 |

| | |
|--------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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 9). |
| 7.3. Specific end use(s) | |
| Recommendations: | - |
| Industrial sector specific solutions: | - |

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1. Control parameters

| Substance | CAS No | Occupational exposure limit values/short term values | | Biological limit values |
|-----------|--------|------------------------------------------------------|-------------------|-------------------------|
| | | ppm | mg/m ³ | |
| - | - | - | - | - |

Substance: -

EC No: - CAS No: -

DNEL

Industrial

| Route of exposure: | Acute effect local | Acute effect systemic | Chronic effect local | Chronic effect systemic |
|--------------------|--------------------|-----------------------|----------------------|-------------------------|
| Oral | - | - | - | - |
| Inhalation | - | - | - | - |
| Dermal | - | - | - | - |

Critical physical parameters: solubility, flammability, corrosivity: -

Consumer

| Route of exposure: | Acute effect local | Acute effect systemic | Chronic effect local | Chronic effect systemic |
|--------------------|--------------------|-----------------------|----------------------|-------------------------|
| Oral | - | - | - | - |
| Inhalation | - | - | - | - |
| Dermal | - | - | - | - |

PNEC

Environmental protection target **PNEC**

| | | | | | |
|---------------|--------------------------|----------------------|------------------|----------|---|
| Trade name: | LADEWIG'S REAGENT | | | | |
| Product code: | LDWR-OT-X** | Date of compilation: | 14 November 2022 | Version: | 2 |

| | |
|------------------------------------|--------------------------|
| Fresh water | No information available |
| Freshwater sediments | No information available |
| Marine water | No information available |
| Marine sediments | No information available |
| Food chain | No information available |
| Microorganisms in sewage treatment | No information available |
| Soil (agricultural) | No information available |
| Air | No information available |

| | | |
|------|-------------------|--|
| 8.2. | Exposure controls | |
|------|-------------------|--|

| | | |
|--------|----------------------------------|--|
| 8.2.1. | Appropriate engineering controls | |
|--------|----------------------------------|--|

| | | |
|--|--------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|
| | Substance/mixture related measures to prevent exposure during identified uses: | Use personal protective equipment. Do not eat, drink or smoke in the workspace. |
| | Structural measures to prevent exposure: | No information available |
| | Organisational measures to prevent exposure: | Organization of work in order to reduce other worker's influence during work process. |
| | Technical measures to prevent exposure: | Secure proper workspace ventilation in order to keep concentration levels in air below permitted levels. |

| | | |
|--------|--------------------------------|--|
| 8.2.2. | Personal protection equipment: | |
|--------|--------------------------------|--|

| | | |
|----------|--------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 8.2.2.1. | Eye and face protection: | Safety glasses tested and approved under appropriate standards such as EN 166(EU). |
| 8.2.2.2. | Skin protection: | |
| | Hand protection: | Handle with chemical resistant gloves. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it. |
| | Other skin protection: | No specific protective equipment required. |
| 8.2.2.3. | Respiratory protection: | Use when overexposure potential. Improper use of respirators is dangerous. |
| 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. |

| | | | |
|---------------|--------------------------|----------------------|------------------|
| Trade name: | LADEWIG'S REAGENT | | |
| Product code: | LDWR-OT-X** | Date of compilation: | 14 November 2022 |
| | | Version: | 2 |

| | |
|-----------------------------------------|---------------|
| Technical measures to prevent exposure: | See Section 6 |
|-----------------------------------------|---------------|

SECTION 9. Physical and chemical properties

| 9.1. | Information on basic physical and chemical properties | Value | Method |
|------|-----------------------------------------------------------|--------------------------|--------------------------|
| | Physical state: | liquid | No information available |
| | Colour: | brownish purple | No information available |
| | Odour/odour threshold: | 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 |
| | 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 10.: Stability and reactivity

| | | |
|-------|-------------------------------------|-------------------------------------------------------------------------------------------------------------|
| 10.1. | Reactivity: | Not reactive under normal conditions. |
| 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: | No information available. |

| | | | | | |
|---------------|--------------------------|----------------------|------------------|----------|---|
| Trade name: | LADEWIG'S REAGENT | | | | |
| Product code: | LDWR-OT-X** | Date of compilation: | 14 November 2022 | Version: | 2 |

| | | |
|-------|-----------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 10.4. | Conditions to avoid: | Contact with incompatible materials and temperature extremes. |
| 10.5. | Incompatible materials: | Strong oxidizers. |
| 10.6. | Hazardous decomposition products: | Does not decompose under normal conditions. During fire, thermal decomposition can produce carbon monoxide (highly toxic) and carbon dioxide (as asphyxiant as sufficient concentrations). |

SECTION 11. Toxicological information

11.1. Information on toxicological effects

Acute toxicity:

| Route of exposure: | Method | Species | Effective Dose LD ₅₀ /LC ₅₀ or ATE _{mixture} | Exposure time | Results |
|--------------------|--------------------------|---------|-----------------------------------------------------------------------------------|---------------|---------|
| Oral: | No information available | - | No information available | - | - |
| Dermal: | No information available | - | No information available | - | - |
| Inhalation: | No information available | - | No information available | - | - |

Specific target organ toxicity - single exposure (STOT-SE):

| | Specific effects | Target organ | Note |
|-------------|--------------------------|--------------|------|
| Oral: | No information available | - | - |
| Dermal: | No information available | - | - |
| Inhalation: | No information available | - | - |

Aspiration hazard:

-

Irritation and corrosion

| | Exposure time | Species | Evaluation | Method | Note |
|-----------------------------|--------------------------|---------|------------|--------|----------------------|
| Skin corrosion/irritation: | No information available | rabbit | - | - | mild skin irritation |
| Serious irritation to eyes: | No information available | - | - | - | - |

| | | | | | |
|---------------|--------------------------|----------------------|------------------|----------|---|
| Trade name: | LADEWIG'S REAGENT | | | | |
| Product code: | LDWR-OT-X** | Date of compilation: | 14 November 2022 | Version: | 2 |

| | | | | | | |
|--------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Chronic oral | No information available | No information available | No information available | No information available | No information available | No information available |
| Chronic dermal | No information available | No information available | No information available | No information available | No information available | No information available |
| Chronic inhalation | No information available | No information available | No information available | No information available | No information available | No information available |

Specific target organ toxicity - repeated exposure (STOT-RE):

| | Specific effects | Target organ | Note |
|-----------------------|--------------------------|--------------------------|--------------------------|
| Subacute oral | No information available | No information available | No information available |
| Subacute dermal | No information available | No information available | No information available |
| Subacute inhalation | No information available | No information available | No information available |
| Subchronic oral | No information available | No information available | No information available |
| Subchronic dermal | No information available | No information available | No information available |
| Subchronic inhalation | No information available | No information available | No information available |
| Chronic oral | No information available | No information available | No information available |
| Chronic dermal | No information available | No information available | No information available |
| Chronic inhalation | No information available | No information available | No information available |

CMR effects (carcinogenicity, mutagenicity, reproductive toxicity)

| | |
|--------------------------------|-------------------------------------------------------------------|
| Carcinogenicity: | Based on available data, the classification criteria are not met. |
| Mutagenicity <i>in-vitro</i> : | Based on available data, the classification criteria are not met. |
| Genotoxicity: | Based on available data, the classification criteria are not met. |

| | | | | | |
|---------------|--------------------------|----------------------|------------------|----------|---|
| Trade name: | LADEWIG'S REAGENT | | | | |
| Product code: | LDWR-OT-X** | Date of compilation: | 14 November 2022 | Version: | 2 |

| | | |
|----------------|--------------------------------------------------------------------|-------------------------------------------------------------------|
| | Mutagenicity <i>in-vivo</i> : | Based on available data, the classification criteria are not met. |
| | Germ cell mutagenicity: | Based on available data, the classification criteria are not met. |
| | Reproductive toxicity: | Based on available data, the classification criteria are not met. |
| | Summary of evaluation of the CMR properties: | No information available |
| 11.2. | Information on other hazards: | |
| 11.2.1. | Endocrine disrupting properties: | |
| | No known endocrine disrupting properties that affect human health. | |
| 11.2.2. | Other informations: | |
| | - | |

SECTION 12. Ecological information

12.1. Toxicity

| Acute (short-term) toxicity | Dose | Exposure time | Species | Method | Evaluation | Note |
|------------------------------|------------------|---------------|---------|--------|------------|------|
| Fish | LC ₅₀ | 96 hours | - | - | - | - |
| Crustacea: | EC ₅₀ | 48 hours | - | - | - | - |
| Algae/aquatic plants: | IC ₅₀ | 72 hours | - | - | - | - |
| Other organisms | - | - | - | - | - | - |
| Chronic (long-term) toxicity | Doza | Exposure time | Species | Method | Evaluation | Note |
| Fish | LC ₅₀ | 96 hours | - | - | - | - |
| Crustacea: | EC ₅₀ | 48 hours | - | - | - | - |
| Algae/aquatic plants: | IC ₅₀ | 72 hours | - | - | - | - |
| Other organisms | - | - | - | - | - | - |

12.2. Persistence and degradability

| Abiotic degradation | | | | |
|---------------------|--------------------------|--------------------------|--------------------------|------|
| | Degradation half-lives | Method | Evaluation | Note |
| Marine water | No information available | No information available | No information available | - |
| Fresh water | No information available | No information available | No information available | - |

| | | | | |
|---------------|--------------------------|----------------------|------------------|------------|
| Trade name: | LADEWIG'S REAGENT | | | |
| Product code: | LDWR-OT-X** | Date of compilation: | 14 November 2022 | Version: 2 |

| | | | | |
|------|--------------------------|--------------------------|--------------------------|---|
| Air | No information available | No information available | No information available | - |
| Soil | No information available | No information available | No information available | - |

Biodegradation

| % Degradation | Time (days) | Method | Evaluation | Note |
|--------------------------|--------------------------|--------------------------|--------------------------|------|
| No information available | No information available | No information available | No information available | - |
| | | | | |

12.3. Bioaccumulative potential

Octanol-water partition coefficient (log Kow)

| Value | Concentration | pH | °C | Method | Evaluation | Note |
|--------------------------|--------------------------|----|----|--------------------------|--------------------------|------|
| No information available | No information available | - | - | No information available | No information available | - |
| | | | | | | |

Bioconcentration Factor (BCF)

| Value | Species | Method | Evaluation | Note |
|--------------------------|--------------------------|--------------------------|--------------------------|------|
| No information available | No information available | No information available | No information available | - |
| | | | | |

Chronic ecotoxicity

| Value | Dose | Exposure time | Species | Method | Evaluation | Note |
|-----------------------------------------|------------------|--------------------------|--------------------------|--------------------------|--------------------------|------|
| Chronic toxicity on fish | LC ₅₀ | No information available | No information available | No information available | No information available | - |
| Chronic toxicity on crustacea (Daphnia) | EC ₅₀ | No information available | No information available | No information available | No information available | - |

| | | | | |
|---------------|--------------------------|----------------------|------------------|------------|
| Trade name: | LADEWIG'S REAGENT | | | |
| Product code: | LDWR-OT-X** | Date of compilation: | 14 November 2022 | Version: 2 |

| | | | | | |
|--------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|--------------------------|--------------------------|--------------------------|
| 12.4. | Mobility in soil | | | | |
| | Known or predicted distribution in environmental compartments: | | | | |
| | Surface tension: | | | | |
| | Value | °C | Concentration | Method | Note |
| | No information available | No information available | No information available | No information available | - |
| | | | | | |
| | Adsorption / desorption | | | | |
| | Transport | A/D coefficient Henry's constant | log Kow | Evaporation rate | Method |
| | Soil-water | No information available | No information available | No information available | No information available |
| | Water-air | 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 assessment | | | | |
| | This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher. | | | | |
| 12.6. | Endocrine disrupting properties | | | | |
| | The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher. | | | | |
| 12.7. | Other adverse effects | | | | |
| | No information available | | | | |
| SECTION 13. Disposal considerations | | | | | |
| 13.1. | Waste treatment methods | | | | |

| | | | | | |
|---------------|--------------------------|----------------------|------------------|----------|---|
| Trade name: | LADEWIG'S REAGENT | | | | |
| Product code: | LDWR-OT-X** | Date of compilation: | 14 November 2022 | Version: | 2 |

| | |
|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 13.1.1. | Product/Packaging disposal: |
| | Submit for disposal to the legal person authorized by the Ministry of Environmental and Nature Protection. |
| 13.1.2. | Waste codes/waste designations according to Law: |
| | Disposal must be made according to official regulations. |
| 13.1.3. | Waste treatment – relevant information: |
| | No information available |
| 13.1.4. | Sewage disposal – relevant information: |
| | Waste must not be disposed of into the sewage system. |
| 13.1.5. | Other disposal recommendations: |
| | 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 provisions: |
| | - |

SECTION 14. Transport information

| | |
|--------------------------------------------------------|--------------------------------------|
| Transporting/shipment by road (ADR) | |
| UN number: | Not subject to transport regulations |
| UN proper shipping name: | - |
| Transport hazard class(es): | - |
| Packing group: | - |
| Environmental hazards: | - |
| Special precautions for user: | - |
| Transporting/shipment by rail (RID) | |
| UN number: | Not subject to transport regulations |
| UN proper shipping name: | - |
| Transport hazard class(es): | - |
| Packing group: | - |
| Environmental hazards: | - |
| Special precautions for user: | - |
| Transporting/shipment by inland waterways (ADN) | |

| | | | | | |
|---------------|--------------------------|----------------------|------------------|----------|---|
| Trade name: | LADEWIG'S REAGENT | | | | |
| Product code: | LDWR-OT-X** | Date of compilation: | 14 November 2022 | Version: | 2 |

| | |
|--------------------------------------------------------------------------|--------------------------------------|
| UN number: | Not subject to transport regulations |
| UN proper shipping name: | - |
| Transport hazard class(es): | - |
| Packing group: | - |
| Environmental hazards: | - |
| Special precautions for user: | - |
| Transporting/shipment by sea (IMDG) | |
| UN number: | Not subject to transport regulations |
| UN proper shipping name: | - |
| Transport hazard class(es): | - |
| Packing group: | - |
| Environmental hazards: | - |
| Special precautions for user: | - |
| Transport in bulk according to Annex II of MARPOL73/78 and the IBC code: | - |
| Transporting/shipment by air (ICAO-TI/IATA-DGR) | |
| UN number: | Not subject to transport regulations |
| UN proper shipping name: | - |
| Transport hazard class(es): | - |
| Packing group: | - |
| Environmental hazards: | - |
| Special precautions for user: | - |
| Further information: - | |

SECTION 15. Regulatory information

| | | |
|-------|------------------------------------------------------------------------------------------------|---|
| 15.1. | Safety, health and environmental regulations/legislation specific for the substance or mixture | |
| | EU regulations | |
| | Authorisation and/or restrictions on use | |
| | Authorisations: | - |
| | Restrictions: | - |

| | | | | | |
|---------------|--------------------------|----------------------|------------------|----------|---|
| Trade name: | LADEWIG'S REAGENT | | | | |
| Product code: | LDWR-OT-X** | Date of compilation: | 14 November 2022 | Version: | 2 |

| | | |
|-------|--------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | Other EU regulations: | <p>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;</p> <p>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;</p> <p>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;</p> <p>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;</p> <p>REACH Restrictions on the manufacturing, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII);</p> |
| | Information according 1999/13/EC about limitation of emissions of volatile organic compounds (VOC-guideline) | |
| | National legislation: | <p>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</p> |
| 15.2. | Chemical safety assessment | |
| | - | |

| SECTION 16. Other information | | |
|--------------------------------------|-----------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 16.1. | Indication of changes: | - |
| 16.2. | Abbreviations and acronyms: | <p>ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)</p> <p>IMDG: International Maritime Code for Dangerous Goods</p> <p>IATA: International Air Transport Association</p> <p>GHS: Globally Harmonised System of Classification and Labelling of Chemicals</p> <p>EINECS: European Inventory of Existing Commercial Chemical Substances</p> <p>CAS: Chemical Abstracts Service (division of the American Chemical Society)</p> <p>DNEL: Derived No-Effect Level (UK REACH)</p> <p>LC50: Lethal concentration, 50 percent</p> <p>LD50: Lethal dose, 50 percent</p> <p>PBT: Persistent, Bioaccumulative and Toxic</p> <p>vPvB: very Persistent and very Bioaccumulative</p> |
| 16.3. | Key literature references and source of data: | Manufacturer's MSDS file. |

| | | | | | |
|---------------|--------------------------|----------------------|------------------|----------|---|
| Trade name: | LADEWIG'S REAGENT | | | | |
| Product code: | LDWR-OT-X** | Date of compilation: | 14 November 2022 | Version: | 2 |

| | | |
|-------|-------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 16.4. | Classification and procedure used to derive the classification for mixture according to Regulation (EC) 1272/2008 (CLP) | |
| | Classification | Classification procedure |
| | - | - |
| 16.5. | Relevant H statements (number and full text) | |
| | H: | |
| | 302 | Harmful if swallowed. |
| | 312 | Harmful in contact with skin. |
| | 314 | Causes severe skin burns and eye damage. |
| | 315 | Causes skin irritation. |
| | 318 | Causes serious eye damage. |
| | 319 | Causes serious eye irritation. |
| 16.6. | Training advice: | - |
| 16.7. | Further information: | "X" in the product code marks different volumes (different packaging of the product) 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 | |
| - | |