



# SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:  
Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008

Revision date 26-Jan-2022

Revision Number 1

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

### 1.1. Product identifier

**Product Code(s)** MM0042.21-0025

**Product Name** 4-Aminophenylether (4,4'-Oxydianiline)

*NOTE [8] - No registration number is given for this substance because it is under the threshold in REACH Article 6(1) and not subject to the registration requirements according to REACH Title II*

**EC No** 202-977-0

**CAS No** 101-80-4

**Chemical name** 4,4'-oxydianiline and its salts

**Pure substance/mixture** Substance

**Formula** C12 H12 N2 O

**Molecular weight** 200.26

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

**Recommended use** Laboratory use

**Uses advised against** No information available

### 1.3. Details of the supplier of the safety data sheet

#### Supplier

LGC Limited  
Queens Road  
Teddington  
Middlesex TW11 0LY  
UNITED KINGDOM  
:+44 (0) 20 8943 7000  
Fax :+44 (0) 20 8943 2767  
eMail : gb@lgcstandards.com

Web : [www.lgcstandards.com](http://www.lgcstandards.com)

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**E-mail address** [sds-request@lgcgroup.com](mailto:sds-request@lgcgroup.com)



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## 1.4. Emergency telephone number

Emergency Telephone

For Hazardous Materials or Dangerous Goods Incident  
Spill, Leak, Fire Exposure, or Accident  
Call CHEMTREC:  
USA & Canada 1-800-424-9300  
Rest of the world +1 703-741-5970

| Emergency Telephone - §45 - (EC)1272/2008 |                                                                                         |
|-------------------------------------------|-----------------------------------------------------------------------------------------|
| Europe                                    | 112                                                                                     |
| Austria                                   | No information available                                                                |
| Bulgaria                                  |                                                                                         |
| Croatia                                   |                                                                                         |
| Cyprus                                    |                                                                                         |
| Czech Republic                            |                                                                                         |
| Denmark                                   |                                                                                         |
| France                                    |                                                                                         |
| Hungary                                   |                                                                                         |
| Ireland                                   |                                                                                         |
| Italy                                     |                                                                                         |
| Lithuania                                 |                                                                                         |
| Luxembourg                                | (+352) 8002 5500 Free telephone number with a 24/7 access in French, Dutch and English. |
| Netherlands                               |                                                                                         |
| Norway                                    |                                                                                         |
| Portugal                                  |                                                                                         |
| Romania                                   |                                                                                         |
| Slovakia                                  |                                                                                         |
| Slovenia                                  |                                                                                         |
| Spain                                     |                                                                                         |
| Sweden                                    |                                                                                         |
| Switzerland                               |                                                                                         |

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

|                                                    |                      |
|----------------------------------------------------|----------------------|
| Acute toxicity - Oral                              | Category 3 - (H301)  |
| Acute toxicity - Dermal                            | Category 3 - (H311)  |
| Acute toxicity - Inhalation (Dusts/Mists)          | Category 3 - (H331)  |
| Skin sensitisation                                 | Category 1 - (H317)  |
| Germ cell mutagenicity                             | Category 1B - (H340) |
| Carcinogenicity                                    | Category 1B - (H350) |
| Reproductive toxicity                              | Category 2 - (H361)  |
| Specific target organ toxicity — repeated exposure | Category 2 - (H373)  |



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|                          |                     |
|--------------------------|---------------------|
| Acute aquatic toxicity   | Category 1 - (H400) |
| Chronic aquatic toxicity | Category 1 - (H410) |

### 2.2. Label elements

202-977-0

Contains 4,4'-oxydianiline and its salts



#### Signal word

Danger

#### Hazard statements

H301 - Toxic if swallowed

H311 - Toxic in contact with skin

H317 - May cause an allergic skin reaction

H331 - Toxic if inhaled

H340 - May cause genetic defects

H350 - May cause cancer

H361f - Suspected of damaging fertility

H373 - May cause damage to organs through prolonged or repeated exposure

H410 - Very toxic to aquatic life with long lasting effects

#### Precautionary Statements - EU (§28, 1272/2008)

P201 - Obtain special instructions before use

P260 - Do not breathe dust/fume/gas/mist/vapours/spray

P273 - Avoid release to the environment

P280 - Wear protective gloves/protective clothing/eye protection/face protection

P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor

P391 - Collect spillage

P403 + P233 - Store in a well-ventilated place. Keep container tightly closed

### 2.3. Other hazards

No information available.

This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.

| Chemical name                   | EU - REACH (1907/2006) - Article 59(1)<br>- Candidate List of Substances of Very<br>High Concern (SVHC) for Authorisation | EU - REACH (1907/2006) - Endocrine<br>Disruptor Assessment List of<br>Substances |
|---------------------------------|---------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|
| 4,4'-oxydianiline and its salts | -                                                                                                                         | -                                                                                |



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## SECTION 3: Composition/information on ingredients

### 3.1 Substances

| Chemical name                               | Weight-% | REACH registration number | EC No     | Classification according to Regulation (EC) No. 1272/2008 [CLP]                                                                                                                                                             | Specific concentration limit (SCL) | M-Factor | M-Factor (long-term) |
|---------------------------------------------|----------|---------------------------|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|----------|----------------------|
| 4,4'-oxydianiline and its salts<br>101-80-4 | 100      | -                         | 202-977-0 | Acute Tox. 3 (H301)<br>Acute Tox. 3 (H311)<br>Acute Tox. 3 (H331)<br>Skin Sens. 1 (H317)<br>Muta. 1B (H340)<br>Carc. 1B (H350)<br>Repr. 2 (H361f)<br>STOT RE 2 (H373)<br>Aquatic Acute 1 (H400)<br>Aquatic Chronic 2 (H411) |                                    |          |                      |

**Full text of H- and EUH-phrases: see section 16**

#### Acute Toxicity Estimate

If LD50/LC50 data is not available or does not correspond to the classification category, then the appropriate conversion value from CLP Annex I, Table 3.1.2, is used to calculate the acute toxicity estimate (ATE<sub>mix</sub>) for classifying a mixture based on its components

| Chemical name                               | Oral LD50 mg/kg | Dermal LD50 mg/kg | Inhalation LC50 - 4 hour - dust/mist - mg/L | Inhalation LC50 - 4 hour - vapour - mg/L | Inhalation LC50 - 4 hour - gas - ppm |
|---------------------------------------------|-----------------|-------------------|---------------------------------------------|------------------------------------------|--------------------------------------|
| 4,4'-oxydianiline and its salts<br>101-80-4 | 725             | 5000              | No data available                           | No data available                        | No data available                    |

This product contains one or more candidate substance(s) of very high concern (Regulation (EC) No. 1907/2006 (REACH), Article 59)

| Chemical name                   | CAS No   | SVHC candidates |
|---------------------------------|----------|-----------------|
| 4,4'-oxydianiline and its salts | 101-80-4 | X               |

## SECTION 4: First aid measures



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### 4.1. Description of first aid measures

|                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|-------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>General advice</b>                     | Show this safety data sheet to the doctor in attendance. Immediate medical attention is required. IF exposed or concerned: Get medical advice/attention.                                                                                                                                                                                                                                                                                                                   |
| <b>Inhalation</b>                         | If breathing has stopped, give artificial respiration. Get medical attention immediately. Remove to fresh air. Do not breathe dust. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. If breathing is difficult, (trained personnel should) give oxygen.                                                   |
| <b>Eye contact</b>                        | Get immediate medical advice/attention. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing.                                                                                                                                                                                                                                                                                                         |
| <b>Skin contact</b>                       | Get immediate medical advice/attention. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. May cause an allergic skin reaction.                                                                                                                                                                                                                                                                                         |
| <b>Ingestion</b>                          | Do NOT induce vomiting. Rinse mouth. Never give anything by mouth to an unconscious person. Get immediate medical advice/attention.                                                                                                                                                                                                                                                                                                                                        |
| <b>Self-protection of the first aider</b> | Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Do not breathe dust. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Use personal protective equipment as required. See section 8 for more information. |

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

**Symptoms** Itching. Rashes. Hives. Coughing and/ or wheezing. Difficulty in breathing.

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

**Note to doctors** May cause sensitisation in susceptible persons. Treat symptomatically.

## **SECTION 5: Firefighting measures**

### 5.1. Extinguishing media

**Suitable Extinguishing Media** Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Large Fire** CAUTION: Use of water spray when fighting fire may be inefficient.

**Unsuitable extinguishing media** Do not scatter spilled material with high pressure water streams.

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



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**Specific hazards arising from the chemical** Product is or contains a sensitizer. May cause sensitisation by skin contact.

## 5.3. Advice for firefighters

**Special protective equipment and precautions for fire-fighters** Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

**Personal precautions** Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Use personal protective equipment as required. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Avoid generation of dust. Do not breathe dust.

**Other information** Refer to protective measures listed in Sections 7 and 8.

**For emergency responders** Use personal protection recommended in Section 8.

### 6.2. Environmental precautions

**Environmental precautions** Prevent further leakage or spillage if safe to do so.

### 6.3. Methods and material for containment and cleaning up

**Methods for containment** Prevent further leakage or spillage if safe to do so.

**Methods for cleaning up** Take up mechanically, placing in appropriate containers for disposal.

**Prevention of secondary hazards** Clean contaminated objects and areas thoroughly observing environmental regulations.

### 6.4. Reference to other sections

**Reference to other sections** See section 8 for more information. See section 13 for more information.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

**Advice on safe handling** Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Take off contaminated clothing and wash it before reuse. In case of insufficient ventilation, wear suitable respiratory equipment. Do not eat, drink or smoke when using this product. Remove contaminated clothing and shoes. Do not breathe dust. Avoid generation of dust. Handle product only in closed system or provide appropriate



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exhaust ventilation.

### General hygiene considerations

Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Wash hands before breaks and after work. Wear suitable gloves and eye/face protection. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product. Do not breathe dust. Take off contaminated clothing and wash it before reuse. Contaminated work clothing should not be allowed out of the workplace.

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

#### Storage Conditions

Please refer to the manufacturer's certificate for specific storage and transport temperature conditions. Store only in the original receptacle unless other advice is given on the CoA. Keep containers tightly closed in a dry, cool and well-ventilated place. Keep out of the reach of children. Store locked up.

### 7.3. Specific end use(s)

**Risk Management Methods (RMM)** The information required is contained in this Safety Data Sheet.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### Exposure Limits

| Chemical name                               | European Union | Austria               | Belgium   | Bulgaria | Croatia                    |
|---------------------------------------------|----------------|-----------------------|-----------|----------|----------------------------|
| 4,4'-oxydianiline and its salts<br>101-80-4 | -              | H*<br>Skin sensitizer | -         | -        | TWA: 0.1 mg/m <sup>3</sup> |
| Chemical name                               | Ireland        | Italy                 | Italy REL | Latvia   | Lithuania                  |
| 4,4'-oxydianiline and its salts<br>101-80-4 | -              | -                     | -         | -        | TWA: 5 mg/m <sup>3</sup>   |

#### Biological occupational exposure limits

This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies

**Derived No Effect Level (DNEL)** No information available.  
**Predicted No Effect Concentration (PNEC)** No information available.



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## 8.2. Exposure controls

### Personal protective equipment

|                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|---------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Eye/face protection             | Avoid contact with eyes. Wear safety glasses with side shields (or goggles).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Hand protection                 | Wear suitable gloves. Impervious gloves. The protective gloves to be used must comply with the specifications of EC Directive 89/686/EEC and the related standard EN374. Wear protective nitrile rubber gloves.                                                                                                                                                                                                                                                                                                                                                              |
| Skin and body protection        | Wear suitable protective clothing. Long sleeved clothing. Chemical resistant apron.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Respiratory protection          | No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.                                                                                                                                                                                                                                                                                                                                                                                                     |
| General hygiene considerations  | Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Wash hands before breaks and after work. Wear suitable gloves and eye/face protection. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product. Do not breathe dust. Take off contaminated clothing and wash it before reuse. Contaminated work clothing should not be allowed out of the workplace. |
| Environmental exposure controls | Do not allow into any sewer, on the ground or into any body of water.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

## SECTION 9: Physical and chemical properties

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

|                 |                           |
|-----------------|---------------------------|
| Physical state  | Solid                     |
| Appearance      | Crystalline               |
| Colour          | white                     |
| Odour           | No information available. |
| Odour threshold | No information available  |

| Property                               | Values            | Remarks • Method |
|----------------------------------------|-------------------|------------------|
| Melting point / freezing point         | No data available | None known       |
| Boiling point / boiling range          | No data available | None known       |
| Flammability (solid, gas)              | No data available | None known       |
| Flammability Limit in Air              |                   | None known       |
| Upper flammability or explosive limits | No data available |                  |
| Lower flammability or explosive limits | No data available |                  |



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|                            |                          |                          |
|----------------------------|--------------------------|--------------------------|
| Flash point                | 218 °C                   | None known               |
| Autoignition temperature   | No data available        | None known               |
| Decomposition temperature  | 189 - 192 °C             | None known               |
| pH                         | No data available        | None known               |
| pH (as aqueous solution)   | No data available        | No information available |
| Kinematic viscosity        | No data available        | None known               |
| Dynamic viscosity          | No data available        | None known               |
| Water solubility           | Insoluble in water       | None known               |
| Solubility(ies)            | No data available        | None known               |
| Partition coefficient      | 0.72                     | None known               |
| Vapour pressure            | 0.09 kPa                 | @ 20°C                   |
| Relative density           | No data available        | None known               |
| Bulk density               | 1.315 @ 20 °C            |                          |
| Liquid Density             | No data available        |                          |
| Relative vapour density    | No data available        | None known               |
| Particle characteristics   |                          |                          |
| Particle Size              | No information available |                          |
| Particle Size Distribution | No information available |                          |

### 9.2. Other information

|                   |              |
|-------------------|--------------|
| Molecular weight  | 200.26       |
| Molecular formula | C12 H12 N2 O |

#### 9.2.1. Information with regards to physical hazard classes

Not applicable 189 - 192 °C 189 - 192 °C

#### 9.2.2. Other safety characteristics

No information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Reactivity No information available.

### 10.2. Chemical stability

Stability Stable under normal conditions.

### Explosion data

Sensitivity to mechanical impact None.

Sensitivity to static discharge None.

### 10.3. Possibility of hazardous reactions

Possibility of hazardous reactions None under normal processing.

### 10.4. Conditions to avoid



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Conditions to avoid Excessive heat.

## 10.5. Incompatible materials

Incompatible materials None known based on information supplied.

Hazardous decomposition products None known based on information supplied.

## SECTION 11: Toxicological information

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

#### Information on likely routes of exposure

##### Product Information

|              |                                                                                                                                                                                                                                                         |
|--------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Inhalation   | Specific test data for the substance or mixture is not available. Toxic by inhalation. (based on components).                                                                                                                                           |
| Eye contact  | Specific test data for the substance or mixture is not available.                                                                                                                                                                                       |
| Skin contact | May cause sensitisation by skin contact. Specific test data for the substance or mixture is not available. Repeated or prolonged skin contact may cause allergic reactions with susceptible persons. (based on components). Toxic in contact with skin. |
| Ingestion    | Specific test data for the substance or mixture is not available. Toxic if swallowed. (based on components).                                                                                                                                            |

#### Symptoms related to the physical, chemical and toxicological characteristics

Symptoms Itching. Rashes. Hives. Coughing and/ or wheezing. Difficulty in breathing.

#### Numerical measures of toxicity

##### Acute toxicity

##### Component Information

| Chemical name                   | Oral LD50           | Dermal LD50             | Inhalation LC50 |
|---------------------------------|---------------------|-------------------------|-----------------|
| 4,4'-oxydianiline and its salts | = 725 mg/kg ( Rat ) | > 5000 mg/kg ( Rabbit ) |                 |



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

**Skin corrosion/irritation** No information available.

**Serious eye damage/eye irritation** No information available.

**Respiratory or skin sensitisation** May cause sensitisation by skin contact.

**Germ cell mutagenicity** Contains a known or suspected mutagen. Classification based on data available for ingredients. May cause genetic defects.

The table below indicates ingredients above the cut-off threshold considered as relevant which are listed as mutagenic.

| Chemical name                   | European Union |
|---------------------------------|----------------|
| 4,4'-oxydianiline and its salts | Muta. 1B       |

**Carcinogenicity** Contains a known or suspected carcinogen. Classification based on data available for ingredients. May cause cancer.

The table below indicates whether each agency has listed any ingredient as a carcinogen.

| Chemical name                   | European Union |
|---------------------------------|----------------|
| 4,4'-oxydianiline and its salts | Carc. 1B       |

**Reproductive toxicity** Contains a known or suspected reproductive toxin. Classification based on data available for ingredients. Suspected of damaging fertility or the unborn child.

The table below indicates ingredients above the cut-off threshold considered as relevant which are listed as reproductive toxins.

| Chemical name                   | European Union |
|---------------------------------|----------------|
| 4,4'-oxydianiline and its salts | Repr. 2        |

**STOT - single exposure** No information available.

**STOT - repeated exposure** May cause damage to organs through prolonged or repeated exposure.

**Aspiration hazard** No information available.

### 11.2. Information on other hazards

#### 11.2.1. Endocrine disrupting properties

**Endocrine disrupting properties** No information available.



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## 11.2.2. Other information

Other adverse effects No information available.

## SECTION 12: Ecological information

### 12.1. Toxicity

Ecotoxicity Very toxic to aquatic life with long lasting effects.

| Chemical name                   | Algae/aquatic plants                             | Fish                                     | Toxicity to microorganisms | Crustacea                            |
|---------------------------------|--------------------------------------------------|------------------------------------------|----------------------------|--------------------------------------|
| 4,4'-oxydianiline and its salts | EC50: 21.7 mg/L (72h, Scenedesmus capricornutum) | LC50: 22 mg/L (96h, Pimephales promelas) | -                          | EC50: 0.92 mg/L (48h, Daphnia magna) |

### 12.2. Persistence and degradability

Persistence and degradability No information available.

### 12.3. Bioaccumulative potential

Bioaccumulation There is no data for this product.

### Component Information

| Chemical name                   | Partition coefficient |
|---------------------------------|-----------------------|
| 4,4'-oxydianiline and its salts | 0.72                  |

### 12.4. Mobility in soil

Mobility in soil No information available.

### 12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment The product contains substance(s) classified as PBT or vPvB.

| Chemical name                   | PBT and vPvB assessment         |
|---------------------------------|---------------------------------|
| 4,4'-oxydianiline and its salts | The substance is not PBT / vPvB |

### 12.6. Endocrine disrupting properties

Endocrine disrupting properties No information available.



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## 12.7. Other adverse effects

No information available.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Waste from residues/unused products

Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

Contaminated packaging

Do not reuse empty containers.

## SECTION 14: Transport information

### IATA

|                                   |                                                                                  |
|-----------------------------------|----------------------------------------------------------------------------------|
| 14.1 UN number or ID number       | UN2811                                                                           |
| 14.2 UN proper shipping name      | Toxic solid, organic, n.o.s. (4,4'-oxydianiline and its salts)                   |
| 14.3 Transport hazard class(es)   | 6.1                                                                              |
| 14.4 Packing group                | III                                                                              |
| Description                       | UN2811, Toxic solid, organic, n.o.s. (4,4'-oxydianiline and its salts), 6.1, III |
| 14.5 Environmental hazards        | Yes                                                                              |
| 14.6 Special precautions for user |                                                                                  |
| Special Provisions                | A3, A5                                                                           |
| ERG Code                          | 6L                                                                               |

### IMDG

|                                                              |                                                                                                    |
|--------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
| 14.1 UN number or ID number                                  | UN2811                                                                                             |
| 14.2 UN proper shipping name                                 | Toxic solid, organic, n.o.s. (4,4'-oxydianiline and its salts)                                     |
| 14.3 Transport hazard class(es)                              | 6.1                                                                                                |
| 14.4 Packing group                                           | III                                                                                                |
| Description                                                  | UN2811, Toxic solid, organic, n.o.s. (4,4'-oxydianiline and its salts), 6.1, III, Marine pollutant |
| 14.5 Marine pollutant                                        | P                                                                                                  |
| Environmental hazards                                        | Yes                                                                                                |
| 14.6 Special precautions for user                            |                                                                                                    |
| Special Provisions                                           | 223, 274                                                                                           |
| EmS-No                                                       | F-A, S-A No information available                                                                  |
| 14.7 Maritime transport in bulk according to IMO instruments | No information available                                                                           |

### RID

|                                 |                                                                |
|---------------------------------|----------------------------------------------------------------|
| 14.1 UN number or ID number     | UN2811                                                         |
| 14.2 UN proper shipping name    | Toxic solid, organic, n.o.s. (4,4'-oxydianiline and its salts) |
| 14.3 Transport hazard class(es) | 6.1                                                            |
| 14.4 Packing group              | III                                                            |



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|                                          |                                                                                                                  |
|------------------------------------------|------------------------------------------------------------------------------------------------------------------|
| <b>Description</b>                       | UN2811, Toxic solid, organic, n.o.s. (4,4'-oxydianiline and its salts), 6.1, III, Environmentally Hazardous      |
| <b>14.5 Environmental hazards</b>        | Yes                                                                                                              |
| <b>14.6 Special precautions for user</b> |                                                                                                                  |
| <b>Special Provisions</b>                | 274, 614                                                                                                         |
| <b>Classification code</b>               | T2                                                                                                               |
| <b>ADR</b>                               |                                                                                                                  |
| <b>14.1 UN number or ID number</b>       | UN2811                                                                                                           |
| <b>14.2 UN proper shipping name</b>      | Toxic solid, organic, n.o.s. (4,4'-oxydianiline and its salts)                                                   |
| <b>14.3 Transport hazard class(es)</b>   | 6.1                                                                                                              |
| <b>14.4 Packing group</b>                | III                                                                                                              |
| <b>Description</b>                       | UN2811, Toxic solid, organic, n.o.s. (4,4'-oxydianiline and its salts), 6.1, III, (E), Environmentally Hazardous |
| <b>14.5 Environmental hazards</b>        | Yes                                                                                                              |
| <b>14.6 Special precautions for user</b> |                                                                                                                  |
| <b>Special Provisions</b>                | 274, 614                                                                                                         |
| <b>Classification code</b>               | T2                                                                                                               |
| <b>Tunnel restriction code</b>           | (E)                                                                                                              |

## SECTION 15: Regulatory information

### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

**Water hazard class (WGK)** strongly hazardous to water (WGK 3)

#### Netherlands

| Chemical name                   | Netherlands - List of Carcinogens | Netherlands - List of Carcinogens | Netherlands - List of Reproductive Toxins |
|---------------------------------|-----------------------------------|-----------------------------------|-------------------------------------------|
| 4,4'-oxydianiline and its salts | Present                           | Present                           | Fertility Category 2                      |

#### Poland

SDS created according to the following Polish regulation: Act of February 25, 2011 on chemical substances and their mixtures (Journal of Laws of 2018, item 143, as amended). Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH), establishing the European Chemicals Agency (EC) as amended. Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labeling and packaging of substances and mixtures, as amended. Regulation of the Minister of Health of 10 August 2012 on the criteria and method of classifying chemical substances and their mixtures (Journal of Laws of 2012, item 1018). Regulation of the Minister of Health of 20 April 2012 on labeling packaging of hazardous substances and mixtures and some mixtures (Journal of



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Laws of 2012, item 445). Regulation of the Minister of Family, Labor and Social Policy of 12 June 2018 on the maximum allowable concentrations and intensities of factors harmful to health in the work environment (Journal of Laws of 2018, item 1286). Announcement of the Minister of Economy, Labor and Social Policy of August 28, 2003 on the publication of the unified text of the Ordinance of the Minister of Labor and Social Policy on general health and safety at work regulations (Journal of Laws of 2003, No. 169, item 1650). Regulation of the Minister of Health of 30 December 2004 on occupational safety and health related to the presence of chemical agents in the workplace (Journal of Laws of 2005, No. 11, item 86). Act of December 14, 2012 on waste (Journal of Laws of 2013, item 21) Regulation of the Minister of Health of December 30, 2004 on occupational health and safety related to the presence of chemical agents in the workplace (Journal U. of 2005, No. 11, item 86). Waste Act of December 14, 2012 (Journal of Laws of 2013, item 21). Act of 13 June 2013 on the management of packaging and packaging waste, Journal of Laws 2013, item 888). Government statement of September 24, 2002 - European Agreement on the International Carriage of Dangerous Goods by Road (ADR) (Journal of Laws No. 194, item 1629 and Journal of Laws of 2003, No. 207, item 2013 and 2014).

## European Union

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

## Authorisations and/or restrictions on use:

This product contains one or more substance(s) subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

## DIRECTIVE (EU) 2021/1187 on the marketing and use of explosives precursors

Not applicable

| Chemical name                              | Restricted substance per REACH Annex XVII | Substance subject to authorisation per REACH Annex XIV |
|--------------------------------------------|-------------------------------------------|--------------------------------------------------------|
| 4,4'-oxydianiline and its salts - 101-80-4 | 28.<br>29.<br>43.                         |                                                        |

## Persistent Organic Pollutants

Not applicable

## Dangerous substance category per Seveso Directive (2012/18/EU)

H2 - ACUTE TOXIC

E1 - Hazardous to the Aquatic Environment in Category Acute 1 or Chronic 1

## Ozone-depleting substances (ODS) regulation (EC) 1005/2009

Not applicable



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## International Inventories

|               |                                                  |
|---------------|--------------------------------------------------|
| TSCA          | Contact supplier for inventory compliance status |
| DSL/NDSL      | Contact supplier for inventory compliance status |
| EINECS/ELINCS | Contact supplier for inventory compliance status |
| ENCS          | Contact supplier for inventory compliance status |
| IECSC         | Contact supplier for inventory compliance status |
| KECL          | Contact supplier for inventory compliance status |
| PICCS         | Contact supplier for inventory compliance status |
| AICS          | Contact supplier for inventory compliance status |

## Legend:

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory  
**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List  
**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances  
**ENCS** - Japan Existing and New Chemical Substances  
**IECSC** - China Inventory of Existing Chemical Substances  
**KECL** - Korean Existing and Evaluated Chemical Substances  
**PICCS** - Philippines Inventory of Chemicals and Chemical Substances  
**AICS** - Australian Inventory of Chemical Substances

## 15.2. Chemical safety assessment

**Chemical Safety Report** A Chemical Safety Assessment has been carried out for this substance

## **SECTION 16: Other information**

### Key or legend to abbreviations and acronyms used in the safety data sheet

#### **Full text of H-Statements referred to under section 3**

H301 - Toxic if swallowed  
H311 - Toxic in contact with skin  
H317 - May cause an allergic skin reaction  
H331 - Toxic if inhaled  
H340 - May cause genetic defects  
H350 - May cause cancer  
H361f - Suspected of damaging fertility  
H373 - May cause damage to organs through prolonged or repeated exposure  
H400 - Very toxic to aquatic life  
H411 - Toxic to aquatic life with long lasting effects

#### **Legend**

SVHC: Substances of Very High Concern for Authorisation:

**Legend Section 8: Exposure controls/personal protection**



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| TWA<br>Ceiling                                                  | TWA (time-weighted average)<br>Maximum limit value | STEL<br>*          | STEL (Short Term Exposure Limit)<br>Skin designation |
|-----------------------------------------------------------------|----------------------------------------------------|--------------------|------------------------------------------------------|
| Classification procedure                                        |                                                    |                    |                                                      |
| Classification according to Regulation (EC) No. 1272/2008 [CLP] |                                                    | Method Used        |                                                      |
| Acute oral toxicity                                             |                                                    | Calculation method |                                                      |
| Acute dermal toxicity                                           |                                                    | Calculation method |                                                      |
| Acute inhalation toxicity - gas                                 |                                                    | Calculation method |                                                      |
| Acute inhalation toxicity - Vapour                              |                                                    | Calculation method |                                                      |
| Acute inhalation toxicity - dust/mist                           |                                                    | Calculation method |                                                      |
| Skin corrosion/irritation                                       |                                                    | Calculation method |                                                      |
| Serious eye damage/eye irritation                               |                                                    | Calculation method |                                                      |
| Respiratory sensitisation                                       |                                                    | Calculation method |                                                      |
| Skin sensitisation                                              |                                                    | Calculation method |                                                      |
| Mutagenicity                                                    |                                                    | Calculation method |                                                      |
| Carcinogenicity                                                 |                                                    | Calculation method |                                                      |
| STOT - single exposure                                          |                                                    | Calculation method |                                                      |
| STOT - repeated exposure                                        |                                                    | Calculation method |                                                      |
| Acute aquatic toxicity                                          |                                                    | Calculation method |                                                      |
| Chronic aquatic toxicity                                        |                                                    | Calculation method |                                                      |
| Aspiration hazard                                               |                                                    | Calculation method |                                                      |
| Ozone                                                           |                                                    | Calculation method |                                                      |

### Key literature references and sources for data used to compile the SDS

Agency for Toxic Substances and Disease Registry (ATSDR)  
U.S. Environmental Protection Agency ChemView Database  
European Food Safety Authority (EFSA)  
EPA (Environmental Protection Agency)  
Acute Exposure Guideline Level(s) (AELG(s))  
U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act  
U.S. Environmental Protection Agency High Production Volume Chemicals  
Food Research Journal  
Hazardous Substance Database  
International Uniform Chemical Information Database (IUCLID)  
Japan GHS Classification  
Australian National Industrial Chemicals Notification and Assessment Scheme (NICNAS)  
NIOSH (National Institute for Occupational Safety and Health)  
National Library of Medicine's ChemID Plus (NLM CIP)  
National Library of Medicine's PubMed database (NLM PUBMED)  
National Toxicology Program (NTP)  
New Zealand's Chemical Classification and Information Database (CCID)  
Organisation for Economic Co-operation and Development Environment, Health, and Safety Publications  
Organisation for Economic Co-operation and Development High Production Volume Chemicals Programme  
Organisation for Economic Co-operation and Development Screening Information Data Set  
World Health Organization

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This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

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**End of Safety Data Sheet**