according to Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU



### 2-Chloroaniline ≥98 %, for synthesis

article number: 1C3C date of compilation: 2020-05-26 Version: **3.0 en** Revision: 2024-03-03

Replaces version of: 2022-05-06

Version: (2)

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

#### **Product identifier** 1.1

Identification of the substance **2-Chloroaniline** ≥98 %, for synthesis

Article number 1C3C

Registration number (REACH) It is not required to list the identified uses be-

cause the substance is not subject to registration

according to REACH (< 1 t/a).

Index number in CLP Annex VI 612-010-00-8 EC number 202-426-4 CAS number 95-51-2

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

Relevant identified uses: Laboratory and analytical use

Laboratory chemical

sicherheit@carlroth.de

Uses advised against: Do not use for products which come into contact

with foodstuffs. Do not use for private purposes (household). Food, drink and animal feeding-

stuffs.

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

Carl Roth GmbH + Co. KG Schoemperlenstr. 3-5 D-76185 Karlsruhe Germany

Telephone:+49 (0) 721 - 56 06 0 **Telefax:** +49 (0) 721 - 56 06 149 e-mail: sicherheit@carlroth.de Website: www.carlroth.de

Competent person responsible for the safety data Department Health, Safety and Environment

sheet:

#### 1.4 **Emergency telephone number**

e-mail (competent person):

Name	Street	Postal code/city	Telephone	Website
National Poisons Information Centre Beaumont Hospital	Beaumont Road	Dublin 9	+353 1 809 2166	https:// www.poisons.ie/

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### **SECTION 2: Hazards identification**

### 2.1 Classification of the substance or mixture

### Classification according to Regulation (EC) No 1272/2008 (CLP)

Section	Hazard class	Cat- egory	Hazard class and category	Hazard statement
3.10	Acute toxicity (oral)	3	Acute Tox. 3	H301
3.1D	Acute toxicity (dermal)	ute toxicity (dermal) 3 Acute Tox. 3 H31		H311
3.1I	Acute toxicity (inhal.)	Acute toxicity (inhal.) 3 Acute Tox. 3 H		H331
3.9	Specific target organ toxicity - repeated exposure 2 STOT RE 2		H373	
4.1A	Hazardous to the aquatic environment - acute hazard 1 Aquatic Acute 1		H400	
4.1C	Hazardous to the aquatic environment - chronic hazard	1	Aquatic Chronic 1	H410

For full text of abbreviations: see SECTION 16

### The most important adverse physicochemical, human health and environmental effects

Delayed or immediate effects can be expected after short or long-term exposure. Spillage and fire water can cause pollution of watercourses.

#### 2.2 Label elements

### Labelling according to Regulation (EC) No 1272/2008 (CLP)

Signal word Danger

### **Pictograms**

GHS06, GHS08, GHS09







### **Hazard statements**

H301+H311+H331 Toxic if swallowed, in contact with skin or if inhaled

May cause damage to organs through prolonged or repeated exposure

H410 Very toxic to aquatic life with long lasting effects

### **Precautionary statements**

#### **Precautionary statements - prevention**

P273 Avoid release to the environment

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

### **Precautionary statements - response**

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

P302+P352 IF ON SKIN: Wash with plenty of soap and water

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing

### Labelling of packages where the contents do not exceed 125 ml

Signal word: Danger

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#### Symbol(s)







H301+H311+H331 Toxic if swallowed, in contact with skin or if inhaled.

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

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor.

P302+P352 IF ON SKIN: Wash with plenty of soap and water.

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

### 2.3 Other hazards

#### Results of PBT and vPvB assessment

According to the results of its assessment, this substance is not a PBT or a vPvB.

### **Endocrine disrupting properties**

Does not contain an endocrine disruptor (ED) at a concentration of  $\geq 0.1\%$ .

### **SECTION 3: Composition/information on ingredients**

#### 3.1 Substances

Name of substance 2-Chloroaniline

Molecular formula C<sub>6</sub>H<sub>6</sub>CIN

Molar mass 127,6 g/<sub>mol</sub>

CAS No 95-51-2

EC No 202-426-4

Index No 612-010-00-8

#### Substance, Specific Conc. Limits, M-factors, ATE

Specific Conc. Limits	M-Factors	ATE	Exposure route
-	-	100 <sup>mg</sup> / <sub>kg</sub> 1.000 <sup>mg</sup> / <sub>kg</sub> 3 <sup>mg</sup> / <sub>l</sub> /4h	oral dermal inhalation: vapour

### **SECTION 4: First aid measures**

### 4.1 Description of first aid measures



### **General notes**

Take off immediately all contaminated clothing. Self-protection of the first aider.

### Following inhalation

Call a physician immediately. If breathing is irregular or stopped, administer artificial respiration.

#### Following skin contact

After contact with skin, wash immediately with plenty of water.

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### Following eye contact

Rinse cautiously with water for several minutes. In all cases of doubt, or when symptoms persist, seek medical advice.

### Following ingestion

Rinse mouth immediately and drink plenty of water. Call a physician immediately.

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

Irritant effects, Has degreasing effect on the skin, Nausea, Vomiting, Headache, Cough, Dyspnoea, Spasms, Blood pressure drop, Cardiac arrhythmias, Methaemoglobinaemia, Cyanosis (blue coloured blood)

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

none

### **SECTION 5: Firefighting measures**

### 5.1 Extinguishing media



### Suitable extinguishing media

co-ordinate firefighting measures to the fire surroundings! water spray, alcohol resistant foam, dry extinguishing powder, BC-powder, carbon dioxide ( $CO_2$ )

#### Unsuitable extinguishing media

water jet

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

Combustible. Vapours are heavier than air, spread along floors and form explosive mixtures with air.

### **Hazardous combustion products**

In case of fire may be liberated: Nitrogen oxides (NOx), Carbon monoxide (CO), Carbon dioxide (CO<sub>2</sub>), Hydrogen chloride (HCl)

#### 5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes. Do not allow firefighting water to enter drains or water courses. Fight fire with normal precautions from a reasonable distance. Wear self-contained breathing apparatus. Wear full chemical protective clothing.

### **SECTION 6: Accidental release measures**

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



#### For non-emergency personnel

Use personal protective equipment as required. Avoid contact with skin, eyes and clothes. Do not breathe vapour/spray.

### 6.2 Environmental precautions

Keep away from drains, surface and ground water. Retain contaminated washing water and dispose of it. If substance has entered a water course or sewer, inform the responsible authority.

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

### Advice on how to contain a spill

Covering of drains.

### Advice on how to clean up a spill

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents).

### Other information relating to spills and releases

Place in appropriate containers for disposal. Ventilate affected area.

#### 6.4 Reference to other sections

Hazardous combustion products: see section 5. Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal considerations: see section 13.

### **SECTION 7: Handling and storage**

### 7.1 Precautions for safe handling

Provision of sufficient ventilation. Use extractor hood (laboratory). Handle and open container with care. Clear contaminated areas thoroughly.

### Measures to protect the environment

Avoid release to the environment.

### Advice on general occupational hygiene

When using do not eat or drink. Thorough skin-cleansing after handling the product.

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

Keep container tightly closed. May cause decomposition by long-term light influence.

### **Incompatible substances or mixtures**

Observe hints for combined storage.

#### Protect against external exposure, such as

UV-radiation/sunlight, contact with air/oxygen

### Consideration of other advice:

Store locked up.

### **Ventilation requirements**

Keep any substance that emits harmful vapours or gases in a place that allows these to be permanently extracted.

### Specific designs for storage rooms or vessels

Recommended storage temperature: 15 - 25 °C

### 7.3 Specific end use(s)

No information available.

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### **SECTION 8: Exposure controls/personal protection**

#### 8.1 Control parameters

**National limit values** 

**Occupational exposure limit values (Workplace Exposure Limits)** 

This information is not available.

### 8.2 Exposure controls

Individual protection measures (personal protective equipment)

### **Eye/face protection**





Use safety goggle with side protection.

### Skin protection





### hand protection

Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374. Check leak-tightness/impermeability prior to use. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves. The times are approximate values from measurements at 22 ° C and permanent contact. Increased temperatures due to heated substances, body heat etc. and a reduction of the effective layer thickness by stretching can lead to a considerable reduction of the breakthrough time. If in doubt, contact manufacturer. At an approx. 1.5 times larger / smaller layer thickness, the respective breakthrough time is doubled / halved. The data apply only to the pure substance. When transferred to substance mixtures, they may only be considered as a guide.

### • type of material

Butyl caoutchouc (butyl rubber)

### material thickness

≥0,5 mm

### breakthrough times of the glove material

>480 minutes (permeation: level 6)

### • Splash protection - Protective gloves

• type of material: NR: natural rubber, latex

material thickness: 0,65 mm

breakthrough times of the glove material: >30 minutes (permeation: level 2)

### other protection measures

Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended.

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### **Respiratory protection**





Respiratory protection necessary at: Aerosol or mist formation. Type: A (against organic gases and vapours with a boiling point of > 65 °C , colour code: Brown).

### **Environmental exposure controls**

Keep away from drains, surface and ground water.

# **SECTION 9: Physical and chemical properties**

### 9.1 Information on basic physical and chemical properties

Physical state liquid

Colour colourless - light yellow

Odour characteristic

Melting point/freezing point -2 °C (ECHA)

Boiling point or initial boiling point and boiling

range

**Flammability** 

205 °C at 1.013 hPa (ECHA)

this material is combustible, but will not ignite

readily

Lower and upper explosion limit not determined

Flash point 105 °C at 1.013 hPa (ECHA)

Auto-ignition temperature >500 °C

Decomposition temperature >200 °C

pH (value) not determined (suspension) (alkaline)

Kinematic viscosity not determined

Solubility(ies)

Water solubility 5,6  $^{9}$ / $_{1}$  at 20  $^{\circ}$ C (ECHA)

Partition coefficient

Partition coefficient n-octanol/water (log value): 1,72 (20 °C) (ECHA)

Vapour pressure 0,271 hPa at 25 °C

Density and/or relative density

Density  $1,21 \text{ g/}_{\text{cm}^3}$  at 20 °C (ECHA)

Relative vapour density 4,41 (air = 1)

Particle characteristics not relevant (liquid)

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Other safety parameters

Oxidising properties none

9.2 Other information

Information with regard to physical hazard

classes:

hazard classes acc. to GHS (physical hazards): not relevant

Other safety characteristics:

Temperature class (EU, acc. to ATEX) T1

Maximum permissible surface temperature on

the equipment: 450°C

### **SECTION 10: Stability and reactivity**

### 10.1 Reactivity

This material is not reactive under normal ambient conditions.

#### If heated

Vapours may form explosive mixtures with air.

### 10.2 Chemical stability

The material is stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

### 10.3 Possibility of hazardous reactions

**Violent reaction with:** strong oxidiser, Carboxylic acid anhydride, Acetic anhydride, Acids, Acid chlorides, inorganic

### 10.4 Conditions to avoid

UV-radiation/sunlight. Keep away from heat. Decompostion takes place from temperatures above: >200 °C.

### 10.5 Incompatible materials

different plastics

### 10.6 Hazardous decomposition products

Hazardous combustion products: see section 5.

# SECTION 11: Toxicological information

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

Classification according to GHS (1272/2008/EC, CLP)

### **Acute toxicity**

Toxic if swallowed. Toxic in contact with skin. Toxic if inhaled.

Acute toxicity					
Exposure route	Endpoint	Value	Species	Method	Source
dermal	LD50	1.000 <sup>mg</sup> / <sub>kg</sub>	rat		ECHA

#### Skin corrosion/irritation

Shall not be classified as corrosive/irritant to skin.

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### Serious eye damage/eye irritation

Shall not be classified as seriously damaging to the eye or eye irritant.

### Respiratory or skin sensitisation

Shall not be classified as a respiratory or skin sensitiser.

### Germ cell mutagenicity

Shall not be classified as germ cell mutagenic.

### Carcinogenicity

Shall not be classified as carcinogenic.

### **Reproductive toxicity**

Shall not be classified as a reproductive toxicant.

### Specific target organ toxicity - single exposure

Shall not be classified as a specific target organ toxicant (single exposure).

### Specific target organ toxicity - repeated exposure

May cause damage to organs through prolonged or repeated exposure.

### **Aspiration hazard**

Shall not be classified as presenting an aspiration hazard.

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

#### If swallowed

vomiting, nausea

### • If in eyes

causes slight to moderate irritation

### • If inhaled

headache, cough, Dyspnoea

### • If on skin

Prolonged or repeated skin contact may cause removal of natural fat from the skin resulting in dermatitis (skin inflammation)

### Other information

Other adverse effects: Liver and kidney damage, Cardiac arrhythmias, Blood pressure drop, Spasms, Methaemoglobinaemia, Cyanosis (blue coloured blood)

#### 11.2 Endocrine disrupting properties

Does not contain an endocrine disruptor (ED) at a concentration of  $\geq 0.1\%$ .

#### 11.3 Information on other hazards

There is no additional information.

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### **SECTION 12: Ecological information**

### 12.1 Toxicity

Very toxic to aquatic life with long lasting effects.

### **Aquatic toxicity (acute)**

Endpoint	Value	Species	Source	Exposure time
ErC50	32 <sup>mg</sup> / <sub>l</sub>	algae	ECHA	72 h

### 12.2 Persistence and degradability

Theoretical Oxygen Demand (without nitrification): 1,63 mg/mg Theoretical Oxygen Demand (with nitrification): 2,132 <sup>mg</sup>/<sub>mg</sub> Theoretical Carbon Dioxide: 2,07 <sup>mg</sup>/<sub>mg</sub>

### **Process of degradability**

Process	Degradation rate	Time
DOC removal	94 %	10 d
carbon dioxide generation	0 %	28 d

### 12.3 Bioaccumulative potential

Does not significantly accumulate in organisms.

n-octanol/water (log KOW)	1,72 (20 °C) (ECHA)
---------------------------	---------------------

### 12.4 Mobility in soil

Data are not available.

### 12.5 Results of PBT and vPvB assessment

Data are not available.

### 12.6 Endocrine disrupting properties

Does not contain an endocrine disruptor (ED) at a concentration of  $\geq$  0,1%.

#### 12.7 Other adverse effects

Data are not available.

# **SECTION 13: Disposal considerations**

### Waste treatment methods



This material and its container must be disposed of as hazardous waste. Dispose of contents/container in accordance with local/regional/national/international regulations.

### Sewage disposal-relevant information

Do not empty into drains. Avoid release to the environment. Refer to special instructions/safety data sheets.

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### Waste treatment of containers/packagings

It is a dangerous waste; only packagings which are approved (e.g. acc. to ADR) may be used. Handle contaminated packages in the same way as the substance itself. Completely emptied packages can be recycled.

### 13.2 Relevant provisions relating to waste

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

### Properties of waste which render it hazardous

**HP 5** specific target organ toxicity (STOT)/aspiration toxicity

**HP 6** acute toxicity

HP 14 ecotoxic

#### 13.3 Remarks

Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities. Please consider the relevant national or regional provisions. Non-contaminated packages may be recycled.

### **SECTION 14: Transport information**

### 14.1 UN number or ID number

ADRRID	UN 2019
IMDG-Code	UN 2019
ICAO-TI	UN 2019

### 14.2 UN proper shipping name

ADRRID	CHLOROANILINES, LIQUID
IMDG-Code	CHLOROANILINES, LIQUID
ICAO-TI	Chloroanilines, liquid

### 14.3 Transport hazard class(es)

ADRRID	6.1
IMDG-Code	6.1
ICAO-TI	6.1

### 14.4 Packing group

ADRRID	II
IMDG-Code	II
ICAO-TI	II

### **14.5 Environmental hazards** hazardous to the aquatic environment

### 14.6 Special precautions for user

Provisions for dangerous goods (ADR) should be complied within the premises.

### 14.7 Maritime transport in bulk according to IMO instruments

The cargo is not intended to be carried in bulk.

### 14.8 Information for each of the UN Model Regulations

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Agreement concerning the International Carriage of Dangerous Goods by Road (ADR)Additional information

Proper shipping name CHLOROANILINES, LIQUID

Particulars in the transport document UN2019, CHLOROANILINES, LIQUID, 6.1, II, (D/E),

environmentally hazardous

Classification code T1

Danger label(s) 6.1, "Fish and tree"

Environmental hazards yes (hazardous to the aquatic environment)

Special provisions (SP) 802(ADN)

Excepted quantities (EQ) E4

Limited quantities (LQ) 100 ml

Transport category (TC) 2
Tunnel restriction code (TRC) D/E

Hazard identification No 60

Regulations concerning the International Carriage of Dangerous Goods by Rail (RID)Additional information

iiiioiiiiatioii

Classification code T1

**Danger label(s)** 6.1, "Fish and tree"

**Environmental hazards** Yes

Hazardous to water

Special provisions (SP) 802(ADN)

Excepted quantities (EQ) E4

Limited quantities (LQ) 100 ml

Transport category (TC) 2

Hazard identification No 60

International Maritime Dangerous Goods Code (IMDG) - Additional information

Proper shipping name CHLOROANILINES, LIQUID

Particulars in the shipper's declaration UN2019, CHLOROANILINES, LIQUID, 6.1, II, MAR-

**INE POLLUTANT** 

Marine pollutant yes (hazardous to the aquatic environment)

Danger label(s) 6.1, "Fish and tree"

(\*) (¥2)

Special provisions (SP)

Excepted quantities (EQ) E4

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Limited quantities (LQ) 100 mL **EmS** F-A, S-A Stowage category

### International Civil Aviation Organization (ICAO-IATA/DGR) - Additional information

Chloroanilines, liquid Proper shipping name

Particulars in the shipper's declaration UN2019, Chloroanilines, liquid, 6.1, II

**Environmental hazards YES** (hazardous to the aquatic environment)

Danger label(s) 6.1



Excepted quantities (EQ) F4 Limited quantities (LQ) 1 L

### SECTION 15: Regulatory information

# Safety, health and environmental regulations/legislation specific for the substance or mixture Relevant provisions of the European Union (EU)

### Restrictions according to REACH, Annex XVII

### Dangerous substances with restrictions (REACH, Annex XVII)

Name of substance	Name acc. to inventory	CAS No	Restriction	No
2-Chloroaniline	this product meets the criteria for classification in accordance with Reg- ulation No 1272/2008/EC		R3	3

#### Legend

- 1. Shall not be used in:
- ornamental articles intended to produce light or colour effects by means of different phases, for example in ornamental lamps and ashtrays,

- tricks and jokes,

- games for one or more participants, or any article intended to be used as such, even with ornamental aspects,

 Articles not complying with paragraph 1 shall not be placed on the market.
 Shall not be placed on the market if they contain a colouring agent, unless required for fiscal reasons, or perfume, or both, if they

can be used as fuel in decorative oil lamps for supply to the general public, and
 present an aspiration hazard and are labelled with H304.

- 4. Decorative oil lamps for supply to the general public shall not be placed on the market unless they conform to the European Standard on Decorative oil lamps (EN 14059) adopted by the European Committee for Standardisation
- (CEN).
  5. Without prejudice to the implementation of other Union provisions relating to the classification, labelling and packaging of substances and mixtures, suppliers shall ensure, before the placing on the market, that the following requirements are met:

(a) lamp oils, labelled with H304, intended for supply to the general public are visibly, legibly and indelibly marked as follows: "Keep lamps filled with this liquid out of the reach of children"; and, by 1 December 2010, "Just a sip of lamp oil

or even sucking the wick of lamps – may lead to life-threatening lung damage";

(b) grill lighter fluids, labelled with H304, intended for supply to the general public are legibly and indelibly marked by 1 December 2010 as follows: 'Just a sip of grill lighter fluid may lead to life threatening lung damage';

(c) lamps oils and grill lighters, labelled with H304, intended for supply to the general public are packaged in black opaque containers not exceeding 1 litre by 1 December 2010.';

List of substances subject to authorisation (REACH, Annex XIV)/SVHC - candidate list Not listed.

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#### **Seveso Directive**

2012/18/EU (Seveso III)				
No	Dangerous substance/hazard categories	Qualifying quantity plication of lower a quiren		Notes
H2	acute toxic (cat. 2 + cat. 3, inhal.)	50	200	41)

#### Notation

#### **Deco-Paint Directive**

VOC content	100 %
VOC content	1.210 <sup>g</sup> / <sub>l</sub>

### **Industrial Emissions Directive (IED)**

VOC content	100 %
VOC content	1.210 <sup>g</sup> / <sub>l</sub>

### Directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS)

not listed

### Regulation concerning the establishment of a European Pollutant Release and Transfer Register (PRTR)

not listed

### Water Framework Directive (WFD)

List of pollutants (WFD)				
Name of substance	Name acc. to inventory	CAS No	Listed in	Remarks
2-Chloroaniline	Organohalogen compounds and substances which may form such compounds in the aquatic envir- onment		a)	
2-Chloroaniline	Substances and preparations, or the breakdown products of such, which have been proved to pos- sess carcinogenic or mutagenic properties or properties which may affect steroidogenic, thyroid, reproduction or other endocrine- related functions in or via the aquatic environment		a)	

#### Legend

Indicative list of the main pollutants

### Regulation on the marketing and use of explosives precursors

not listed

### **Regulation on drug precursors**

not listed

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<sup>-</sup> Category 2, all exposure routes - category 3, inhalation exposure route

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Regulation on substances that deplete the ozone layer (ODS)

not listed

Regulation concerning the export and import of hazardous chemicals (PIC)

not listed

Regulation on persistent organic pollutants (POP)

not listed

#### Other information

Directive 94/33/EC on the protection of young people at work. Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

#### **National inventories**

Country	Inventory	Status
AU	AIIC	substance is listed
CA	DSL	substance is listed
CN	IECSC	substance is listed
EU	ECSI	substance is listed
EU	REACH Reg.	substance is listed
JP	CSCL-ENCS	substance is listed
KR	KECI	substance is listed
MX	INSQ	substance is listed
NZ	NZIoC	substance is listed
PH	PICCS	substance is listed
TW	TCSI	substance is listed
US	TSCA	substance is listed (ACTIVE)
VN	NCI	substance is listed

Legend

AIIC

Australian Inventory of Industrial Chemicals
List of Existing and New Chemical Substances (CSCL-ENCS)
Domestic Substances List (DSL)
EC Substance Inventory (EINECS, ELINCS, NLP)
Inventory of Existing Chemical Substances Produced or Imported in China
National Inventory of Chemical Substances
Korea Existing Chemicals Inventory
National Chemical Inventory
New Zealand Inventory of Chemicals
Philippine Inventory of Chemicals and Chemical Substances (PICCS)
REACH registered substances

CSCL-ENCS DSL ECSI IECSC INSQ KECI

REACH Reg. REACH registered substances

TCSI TSCA Taiwan Chemical Substance Inventory

**Toxic Substance Control Act** 

### 15.2 Chemical safety assessment

No Chemical Safety Assessment has been carried out for this substance.

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# **SECTION 16: Other information**

### Indication of changes (revised safety data sheet)

Section	Former entry (text/value)	Actual entry (text/value)	Safety- relev- ant
2.3		Endocrine disrupting properties: Does not contain an endocrine disruptor (ED) at a concentration of ≥ 0,1%.	yes
15.1	VOC content: 100 % 1.210 <sup>9</sup> / <sub>l</sub>	VOC content: 100 %	yes
15.1		VOC content: 1.210 <sup>g</sup> / <sub>l</sub>	yes
15.1		National inventories: change in the listing (table)	yes

### **Abbreviations and acronyms**

Abbr.	Descriptions of used abbreviations
ADR	Accord relatif au transport international des marchandises dangereuses par route (Agreement concerning the International Carriage of Dangerous Goods by Road)
ATE	Acute Toxicity Estimate
CAS	Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)
CLP	Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures
DGR	Dangerous Goods Regulations (see IATA/DGR)
EC No	The EC Inventory (EINECS, ELINCS and the NLP-list) is the source for the seven-digit EC number, an identifier of substances commercially available within the EU (European Union)
ED	Endocrine disruptor
EINECS	European Inventory of Existing Commercial Chemical Substances
ELINCS	European List of Notified Chemical Substances
EmS	Emergency Schedule
ErC50	≡ EC50: in this method, that concentration of test substance which results in a 50 % reduction in either growth (EbC50) or growth rate (ErC50) relative to the control
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations
IATA	International Air Transport Association
IATA/DGR	Dangerous Goods Regulations (DGR) for the air transport (IATA)
ICAO	International Civil Aviation Organization
ICAO-TI	Technical instructions for the safe transport of dangerous goods by air
IMDG	International Maritime Dangerous Goods Code
IMDG-Code	International Maritime Dangerous Goods Code
index No	The Index number is the identification code given to the substance in Part 3 of Annex VI to Regulation (EC) No 1272/2008

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according to Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU



### 2-Chloroaniline ≥98 %, for synthesis

article number: 1C3C

Abbr.	Descriptions of used abbreviations
LD50	Lethal Dose 50 %: the LD50 corresponds to the dose of a tested substance causing 50 % lethality during a specified time interval
NLP	No-Longer Polymer
PBT	Persistent, Bioaccumulative and Toxic
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Règlement concernant le transport International ferroviaire des marchandises Dangereuses (Regula- tions concerning the International carriage of Dangerous goods by Rail)
SVHC	Substance of Very High Concern
VOC	Volatile Organic Compounds
vPvB	Very Persistent and very Bioaccumulative

### Key literature references and sources for data

Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures. Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU.

Agreement concerning the International Carriage of Dangerous Goods by Road (ADR). Regulations concerning the International Carriage of Dangerous Goods by Rail (RID). International Maritime Dangerous Goods Code (IMDG). Dangerous Goods Regulations (DGR) for the air transport (IATA).

### List of relevant phrases (code and full text as stated in section 2 and 3)

Code	Text
H301	Toxic if swallowed.
H311	Toxic in contact with skin.
H331	Toxic if inhaled.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

### **Disclaimer**

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.

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