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

1.1. Product identifier

Aniline, 100 ml

CAS No:	62-53-3
Index No:	612-008-00-7
EC No:	200-539-3

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

Use of the substance/mixture

Laboratory chemicals

1.3. Details of the supplier of the safety data sheet

Seller

Company name:	CONATEX-DIDACTIC Lehrmittel GmbH
Street:	Im Forstgarten 1
Place:	D-66459 Kirkel
Internet:	www.conatex.com

Supplier

Company name:	Carbolution Chemicals GmbH	
Street:	Im Stadtwald, Gebäude A1.2	
Place:	D-66123 Saarbrücken	
Contact person:	Dr. Michael Bauer	Telephone: +49 (0)681 302-71232
e-mail:	michael.bauer@carbolution-chemicals.de	
Internet:	www.carbolution-chemicals.de	

1.4. Emergency telephone number:

+49 (0)681 302-71232

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Directive 67/548/EEC or 1999/45/EC

Indications of danger: C3 - Carc. Cat. 3, M3 - Muta. Cat. 3, T - Toxic, Xi - Irritant, N - Dangerous for the environment
R phrases:
Limited evidence of a carcinogenic effect.
Possible risks of irreversible effects.
Toxic by inhalation, in contact with skin and if swallowed.
Toxic: danger of serious damage to health by prolonged exposure through inhalation, in contact with skin and if swallowed.
Risk of serious damage to eyes.
May cause sensitisation by skin contact.
Very toxic to aquatic organisms.

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Hazard categories:
Carcinogenicity: Carc. 2
Germ cell mutagenicity: Muta. 2
Acute toxicity: Acute Tox. 3
Acute toxicity: Acute Tox. 3
Acute toxicity: Acute Tox. 3
Specific target organ toxicity - repeated exposure: STOT RE 1

Serious eye damage/eye irritation: Eye Dam. 1
Respiratory/skin sensitization: Skin Sens. 1
Hazardous to the aquatic environment: Aquatic Acute 1 (M-Factor = 1)
Hazard Statements:
Suspected of causing cancer.
Suspected of causing genetic defects.
Toxic if inhaled.
Toxic in contact with skin.
Toxic if swallowed.
Causes damage to organs through prolonged or repeated exposure.
Causes serious eye damage.
May cause an allergic skin reaction.
Very toxic to aquatic life.

2.2. Label elements

Hazardous components which must be listed on the label

aniline

Signal word: Danger

Pictograms: GHS05-GHS06-GHS08-GHS09

Hazard statements

H301+H311+H331	Toxic if swallowed, in contact with skin or if inhaled.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H341	Suspected of causing genetic defects.
H351	Suspected of causing cancer.
H372	Causes damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.

Precautionary statements

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/doctor.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313	IF exposed or concerned: Get medical advice/attention.

SECTION 3: Composition/information on ingredients

3.1. Substances

Sum formula:	C6H7N
Molecular weight:	93,13

Hazardous components

EC No	Chemical name	Quantity
CAS No	Classification according to Directive 67/548/EEC	
Index No	Classification according to Regulation (EC) No. 1272/2008 [CLP]	
200-539-3	aniline	100 %
62-53-3	Carc. Cat. 3, Muta. Cat. 3, T - Toxic, Xi - Irritant, N - Dangerous for the environment R40-68-23/24/25-48/23/24/25-41-43-50	
612-008-00-7	Carc. 2, Muta. 2, Acute Tox. 3, Acute Tox. 3, Acute Tox. 3, STOT RE 1, Eye Dam. 1, Skin Sens. 1, Aquatic Acute 1; H351 H341 H331 H311 H301 H372 ** H318 H317 H400	

Full text of R-, H- and EUH-phrases: see section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

First aider: Pay attention to self-protection! Move victim out of danger zone.

After inhalation

Provide fresh air. In case of breathing difficulties administer oxygen. No mouth-to-mouth or mouth-to-nose resuscitation. Use Ambu bag or ventilator. Call a physician immediately.

After contact with skin

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Call a physician immediately.

After contact with eyes

In case of contact with eyes, rinse immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Subsequently consult an ophthalmologist.

After ingestion

Rinse mouth immediately and drink plenty of water. Induce vomiting when the affected person is not unconscious. Call a physician immediately.

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

No data available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Co-ordinate fire-fighting measures to the fire surroundings.

5.2. Special hazards arising from the substance or mixture

The product itself does not burn. Vapours may form explosive mixtures with air.

5.3. Advice for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing. Full protective suit.

Additional information

Use water spray jet to protect personnel and to cool endangered containers. Suppress gases/vapours/mists with water spray jet. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Provide adequate ventilation. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes. Wear personal protection equipment.

6.2. Environmental precautions

Do not allow to enter into surface water or drains.

6.3. Methods and material for containment and cleaning up

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal .

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray.

Advice on protection against fire and explosion

Only use the material in places where open light, fire and other flammable sources can be kept away.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly closed. Keep locked up. Store in a place accessible by authorized persons only. Provide adequate ventilation as well as local exhaustion at critical locations.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limits (EH40)

CAS No	Substance	ppm	mg/m³	fibres/ml	Category	Origin
62-53-3	Aniline	1	4		TWA (8 h)	WEL
		-	-		STEL (15 min)	WEL

8.2. Exposure controls

Appropriate engineering controls

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray.

Protective and hygiene measures

Remove contaminated, saturated clothing immediately. Protect skin by using skin protective cream. After work, wash hands and face. When using do not eat or drink.

Eye/face protection

Eye protection: Tightly sealed safety glasses. German Industry Norms (DIN) / European Norms (EN): DIN EN 166

Hand protection

Hand protection: Single-use gloves. Before using check leak tightness / impermeability. Use gloves only once. German Industry Norms (DIN) / European Norms (EN): DIN EN 374

Skin protection

Body protection: Lab apron. Only wear fitting, comfortable and clean protective clothing.

Respiratory protection

With correct and proper use, and under normal conditions, breathing protection is not required. If technical exhaust or ventilation measures are not possible or insufficient , respiratory protection must be worn. Suitable respiratory protective equipment: particulates filter device (DIN EN 143).

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	liquid
Colour:	colourless
Odour:	No data available

		Test method
pH-Value (at 20 °C):	8,8	36 g/l

Changes in the physical state

Initial boiling point and boiling range:	184 °C
Sublimation point:	No data available
Softening point:	No data available
Flash point:	70 °C

Flammability

Solid:	No data available
Gas:	No data available
Lower explosion limits:	1,3 vol. %
Upper explosion limits:	23 vol. %
Ignition temperature:	No data available

Auto-ignition temperature

Solid:	No data available
Gas:	No data available
Vapour pressure: (at 20 °C)	0,49 hPa
Vapour pressure:	No data available
Density (at 25 °C):	1,022 g/cm³
Water solubility:	No data available
Partition coefficient:	0,91
Viscosity / dynamic:	No data available
Viscosity / kinematic:	No data available
Flow time:	No data available
Vapour density:	3,22
Evaporation rate:	No data available
Solvent separation test:	No data available
Solvent content:	No data available

9.2. Other information

Solid content:	No data available

SECTION 10: Stability and reactivity

10.1. Reactivity

No data available

10.3. Possibility of hazardous reactions

No data available

10.4. Conditions to avoid

No data available

10.5. Incompatible materials

Oxidizing agents, strong.

10.6. Hazardous decomposition products

No data available

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicocinetics, metabolism and distribution

Toxicological data are not available.

Acute toxicity

Toxic. Acute toxicity, oral. Acute toxicity, inhalant. Acute toxicity, dermal.

CAS No	Chemical name				
	Exposure routes	Method	Dose	Species	Source
62-53-3	aniline				
	oral	ATE	100 mg/kg		
	dermal	ATE	300 mg/kg		
	inhalative vapour	ATE	3 mg/l		
	inhalative aerosol	ATE	0,5 mg/l		

Irritation and corrosivity

Irritating to eyes. Risk of serious damage to eyes.

Sensitising effects

May cause sensitisation by skin contact.

Severe effects after repeated or prolonged exposure

Danger of serious damage to health by prolonged exposure.

Carcinogenic/mutagenic/toxic effects for reproduction

May cause cancer. May cause heritable genetic damage.

Specific effects in experiment on an animal

No data available

Additional information on tests

The classification was carried out according to the calculation method of the Preparations Directive (1999/45/EC).

Practical experience

Observations relevant to classification

No data available

SECTION 12: Ecological information

12.1. Toxicity

Very toxic to aquatic life.

CAS No	Chemical name					
	Aquatic toxicity	Method	Dose	[h] | [d]	Species	Source
62-53-3	aniline					
	Acute algae toxicity	ErC50	175 mg/l	72 h	Chlorella pyrenoidosa	

12.2. Persistence and degradability

No data available

12.3. Bioaccumulative potential

No data available

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
62-53-3	aniline	0,9

12.4. Mobility in soil

No data available

12.5. Results of PBT and vPvB assessment

No data available

12.6. Other adverse effects

No data available

Further information

Do not allow to enter into surface water or drains. The classification was carried out according to the calculation method of the Preparations Directive (1999/45/EC).

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Advice on disposal

Do not allow to enter into surface water or drains. Dispose of waste according to applicable legislation.

Waste disposal number of waste from residues/unused products

160506 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing dangerous substances, including mixtures of laboratory chemicals
Classified as hazardous waste.

Waste disposal number of used product

160506 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing dangerous substances, including mixtures of laboratory chemicals
Classified as hazardous waste.

Waste disposal number of contaminated packaging

150110 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); packaging containing residues of or contaminated by dangerous substances
Classified as hazardous waste.

Contaminated packaging

Non-contaminated packages may be recycled. Handle contaminated packages in the same way as the substance itself.

SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number:	UN1547
14.2. UN proper shipping name:	ANILINE
14.3. Transport hazard class(es):	6.1
14.4. Packing group:	II
Hazard label:	6.1

Classification code:	T1
Special Provisions:	279
Limited quantity:	100 mL
Transport category:	2
Hazard No:	60
Tunnel restriction code:	D/E

Other applicable information (land transport)

E4

Inland waterways transport (ADN)

14.1. UN number:	UN1547
14.2. UN proper shipping name:	ANILINE
14.3. Transport hazard class(es):	6.1
14.4. Packing group:	II
Hazard label:	6.1
Classification code:	T1
Special Provisions:	279 802
Limited quantity:	100 mL

Other applicable information (inland waterways transport)

E4

Marine transport (IMDG)

14.1. UN number:	UN1547
14.2. UN proper shipping name:	ANILINE
14.3. Transport hazard class(es):	6.1
14.4. Packing group:	II
Hazard label:	6.1
Special Provisions:	279
Limited quantity:	100 mL
EmS:	F-A, S-A

Other applicable information (marine transport)

E4

Air transport (ICAO)

14.1. UN number:	UN1547
14.2. UN proper shipping name:	ANILINE
14.3. Transport hazard class(es):	6.1
14.4. Packing group:	II
Hazard label:	6.1
Special Provisions:	A113
Limited quantity Passenger:	1 L
IATA-packing instructions - Passenger:	654
IATA-max. quantity - Passenger:	5 L
IATA-packing instructions - Cargo:	662
IATA-max. quantity - Cargo:	60 L

Other applicable information (air transport)

E4

: Y641

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: yes

SECTION 15: Regulatory information

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

EU regulatory information

2004/42/EC (VOC): 100 %

Additional information

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)

National regulatory information

Water contaminating class (D): 2 - water contaminating

SECTION 16: Other information

Relevant R-phrases (Number and full text)

23/24/25	Toxic by inhalation, in contact with skin and if swallowed.
40	Limited evidence of a carcinogenic effect.
41	Risk of serious damage to eyes.
43	May cause sensitisation by skin contact.
48/23/24/25	Toxic: danger of serious damage to health by prolonged exposure through inhalation, in contact with skin and if swallowed.
50	Very toxic to aquatic organisms.
68	Possible risks of irreversible effects.

Relevant H- and EUH-phrases (Number and full text)

H301	Toxic if swallowed.
H301+H311+H331	Toxic if swallowed, in contact with skin or if inhaled.
H311	Toxic in contact with skin.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H331	Toxic if inhaled.
H341	Suspected of causing genetic defects.
H351	Suspected of causing cancer.
H372	Causes damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.