SAFETY DATA SHEET

GHS classification in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200) (OSHA HCS)

SECTION 1. IDENTIFICATION

Product name	:	2-Chloroaniline
Product code	:	C0111

Manufacturer or supplier's details

Company name of supplier	:	TCI America
Address	:	9211 N. Harborgate Street Portland, OR 97203 U.S.A.
Telephone	:	+1-800-4238616/+1-503-2831681
Telefax	:	+1-888-5201075/+1-503-2831987
E-mail address	:	sales-US@TCIchemicals.com

Chemical Emergencies: TCI America (8:00am - 5:00pm) PST +1-503-2867624
Transportation Emergencies: Chemtrec 24-Hour +1-800-4249300 (U.S.A.)/+1-703-5273887 (International)

Recommended use of the chemical and restrictions on use

Recommended use	:	Use as laboratory reagent

SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute toxicity (Oral)	:	Category 4
Acute toxicity (Inhalation)	:	Category 4
Acute toxicity (Dermal)	:	Category 3
Eye irritation	:	Category 2B
Germ cell mutagenicity	:	Category 2
Reproductive toxicity	:	Category 2
Specific target organ toxicity - single exposure	:	Category 1 (Liver, Blood, Heart, Kidney, Central nervous system)
Specific target organ toxicity - repeated exposure	:	Category 1 (Blood)
Specific target organ toxicity - repeated exposure	:	Category 2 (Central nervous system)
Short-term (acute) aquatic hazard	:	Category 1
Long-term (chronic) aquatic hazard	:	Category 1

GHS label elements

Hazard pictograms :

Signal Word : Danger

Hazard Statements :
H302 + H332 Harmful if swallowed or if inhaled.
H311 Toxic in contact with skin.
H320 Causes eye irritation.
H341 Suspected of causing genetic defects.
H361 Suspected of damaging fertility or the unborn child.
H370 Causes damage to organs (Liver, Blood, Heart, Kidney, Central nervous system).
H372 Causes damage to organs (Blood) through prolonged or repeated exposure.
H373 May cause damage to organs (Central nervous system) through prolonged or repeated exposure.
H410 Very toxic to aquatic life with long lasting effects.

Precautionary Statements : **Prevention:**

P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P260 Do not breathe dust/ fume/ gas/ mist/ vapors/ spray.
P264 Wash skin thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.
P271 Use only outdoors or in a well-ventilated area.
P273 Avoid release to the environment.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response:
P301 + P312 + P330 IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell. Rinse mouth.
P302 + P352 + P312 IF ON SKIN: Wash with plenty of water.Call a POISON CENTER/ doctor if you feel unwell.
P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor if you feel unwell.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P307 + P311 IF exposed: Call a POISON CENTER or doctor/ physician.
P337 + P313 If eye irritation persists: Get medical advice/ attention.
P362 Take off contaminated clothing and wash before reuse.
P391 Collect spillage.

Storage:
P405 Store locked up.

Disposal:
P501 Dispose of contents/ container to an approved waste disposal plant.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Substance

Components

Chemical name	CAS RN	Concentration (% w/w)
2-Chloroaniline	95-51-2	>= 90 - <= 100

Actual concentration is withheld as a trade secret

SECTION 4. FIRST AID MEASURES

If inhaled : Remove person to fresh air and keep comfortable for breathing.Call a POISON CENTER or doctor/ physician.

In case of skin contact : Take off all contaminated clothing immediately.Wash off with soap and plenty of water.Call a POISON CENTER or doctor/ physician.

In case of eye contact : Rinse with plenty of water.If easy to do, remove contact lens, if worn.Call a POISON CENTER or doctor/ physician.

If swallowed : Call a POISON CENTER or doctor/ physician.Rinse mouth.

Most important symptoms and effects, both acute and delayed : Cyanosis

SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media : Dry powder, Foam, Water spray, Carbon dioxide (CO2)

Specific hazards during fire fighting : No information available.

Specific extinguishing methods : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Immediately evacuate personnel to safe areas. Remove undamaged containers from fire area if it is safe to do so.

Special protective equipment for fire-fighters : Use personal protective equipment.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	:	Wear suitable protective equipment.Keep people away from and upwind of spill/leak.Ensure adequate ventilation.Entry to non-involved personnel should be controlled around the leakage area by roping off, etc.
Environmental precautions	:	Should not be released into the environment.
Methods and materials for containment and cleaning up	:	Collect as much of the spill as possible with a suitable absorbent material.

SECTION 7. HANDLING AND STORAGE

Technical measures	:	Prevent generation of vapor or mist.
Local/Total ventilation	:	Ensure adequate ventilation. Handle product only in closed system or provide appropriate exhaust ventilation at machinery. Use a local exhaust ventilation.
Advice on safe handling	:	Avoid contact with skin, eyes and clothing. Wear personal protective equipment. Wash hands and face thoroughly after handling.
Conditions for safe storage	:	Keep container tightly closed. Store in a cool and shaded area. Keep under inert gas. Store locked up. Avoid exposure to light.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

Contains no substances with occupational exposure limit values.

Engineering measures	:	Install a closed system or local exhaust.Also install safety shower and eye bath.

Personal protective equipment

Respiratory protection	:	Gas mask, Self-contained breathing apparatus
Hand protection	:	Impervious gloves
Eye protection	:	Safety glasses, Safety goggles, Face-shield
Skin and body protection	:	Impervious protective clothing

*Use personal protective equipment(PPE) approved under appropriate government standards and follow local and national regulations.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	liquid
Color	:	colorless - yellow
Odor	:	No data available
Odor Threshold	:	No data available
pH	:	No data available
Melting point/freezing point	:	28 °F / -2 °C
Boiling point/boiling range	:	408 °F / 209 °C
Flash point	:	219 °F / 104 °C
Flammability (solid, gas)	:	No data available
Upper explosion limit / Upper flammability limit	:	14.2 %(V)
Lower explosion limit / Lower flammability limit	:	2.4 %(V)
Vapor pressure	:	50 Pa (68 °F / 20 °C)
Relative vapor density	:	4.41
Relative density	:	1.22
Solubility(ies)		
Water solubility	:	5 g/l very slightly soluble (68 °F / 20 °C)
Solubility in other solvents	:	
completely miscible	:	Ether Alcohol
Partition coefficient: n-octanol/water	:	1.92
Autoignition temperature	:	932 °F / 500 °C
Decomposition temperature	:	No data available
Viscosity		
Viscosity, dynamic	:	No data available
Viscosity, kinematic	:	No data available
Molecular weight	:	127.57 g/mol

SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	No data available
Chemical stability	:	Stable under normal conditions.
Possibility of hazardous reactions	:	None under normal processing.
Conditions to avoid	:	Exposure to air. Exposure to light.
Incompatible materials	:	Oxidizing agents, Acids
Hazardous decomposition products	:	Carbon monoxide, Carbon dioxide (CO2), Nitrogen oxides (NOx), Hydrogen chloride gas

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

Acute oral toxicity	:	LD50 (Mouse): 256 mg/kg
Acute inhalation toxicity	:	LC50 (Rat): 797 ppm Exposure time: 4 h Test atmosphere: gas
Acute dermal toxicity	:	LD50 (Cat): 222 mg/kg
Acute toxicity (other routes of administration)	:	LDLo (Rat): 310 mg/kg Application Route: Subcutaneous
Skin corrosion/irritation	:	No information available.
Serious eye damage/eye irritation		
Result	:	Mild eye irritation
Respiratory or skin sensitization	:	No information available.
Germ cell mutagenicity		
Germ cell mutagenicity - Assessment	:	Suspected of inducing heritable mutations in the germ cells of humans.

Carcinogenicity

IARC	No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
OSHA	No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.
NTP	No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Reproductive toxicity

Reproductive toxicity - Assessment	:	Suspected human reproductive toxicant
STOT-single exposure		
Target Organs	:	Liver, Blood, Heart, Kidney, Central nervous system
Assessment	:	Causes damage to organs.

STOT-repeated exposure

Target Organs	:	Blood
Assessment	:	Causes damage to organs through prolonged or repeated exposure.
Target Organs	:	Central nervous system
Assessment	:	May cause damage to organs through prolonged or repeated exposure.
Repeated dose toxicity	:	No information available.
Aspiration toxicity	:	No information available.
RTECS No.	:	BX0525000 (2-Chloroaniline)

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Toxicity to fish	:	LC50 (Oryzias latipes (Japanese medaka)): 6.3 ppm Exposure time: 48 h
		LC50 (Oryzias latipes (Japanese medaka)): 7.3 mg/l

Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 2.0 mg/l
Exposure time: 48 h

Toxicity to algae/aquatic plants : EC50 (Selenastrum capricornutum (green algae)): 13 mg/l
Exposure time: 72 h

Ecotoxicology Assessment

Acute aquatic toxicity : Very toxic to aquatic life.
Chronic aquatic toxicity : Very toxic to aquatic life with long lasting effects.

Persistence and degradability

Biodegradability : 2.7% (by BOD), 0% (by TOC), 4.7% (by GC), 3.5% (by UV-VIS)

Bioaccumulative potential

Bioconcentration factor (BCF) : 5.4 - 9.0 (conc. 0.1 ppm)

Mobility in soil

No data available

Other adverse effects

Product:

Ozone-Depletion Potential : Regulation: 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances
Remarks: This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues : Disposal in accordance with local and national regulations.Entrust disposal to a licensed waste disposal company.
Contaminated packaging : Disposal in accordance with local and national regulations.Before disposal of used container, remove contents completely.

SECTION 14. TRANSPORT INFORMATION

International Regulations

IATA-DGR

UN/ID No. : UN 2019
Proper shipping name : Chloroanilines, liquid
Class : 6.1
Packing group : II

IMDG-Code

UN number : UN 2019
Proper shipping name : CHLOROANILINES, LIQUID
Class : 6.1
Packing group : II
EmS Code : F-A, S-A
Marine pollutant : yes

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

Domestic regulation

49 CFR

UN/ID/NA number : UN 2019
Proper shipping name : Chloroanilines, liquid
Class : 6.1
Packing group : II
ERG Code : 152

Marine pollutant : no

Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

SECTION 15. REGULATORY INFORMATION

CERCLA Reportable Quantity

This material does not contain any components with a CERCLA RQ.

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 302 Extremely Hazardous Substances Threshold Planning Quantity

This material does not contain any components with a section 302 EHS TPQ.

SARA 311/312 Hazards : No SARA Hazards

SARA 313 : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Clean Air Act

This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).
This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).
This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).
The following chemical(s) are listed under the U.S. Clean Air Act Section 111 SOCMI Intermediate or Final VOC's (40 CFR 60.489):

2-Chloroaniline	95-51-2	>= 90 - <= 100 %

Clean Water Act

This product does not contain any Hazardous Substances listed under the U.S. CleanWater Act, Section 311, Table 116.4A.
This product does not contain any Hazardous Chemicals listed under the U.S. CleanWater Act, Section 311, Table 117.3.
This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

US State Regulations

Massachusetts Right To Know

No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know

2-Chloroaniline	95-51-2

Maine Chemicals of High Concern

Product does not contain any listed chemicals

Vermont Chemicals of High Concern

Product does not contain any listed chemicals

Washington Chemicals of High Concern

Product does not contain any listed chemicals

TSCA list

No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification requirements.

SECTION 16. OTHER INFORMATION

Revision Date : 11/12/2024

This SDS was prepared sincerely based on the information obtained, however, any warranty shall not be given regarding the data contained and the assessment of hazards and toxicity. Prior to use, please investigate not only the hazards and toxicity information but also the laws and regulations of the organization, area and country where the products are to be used, which shall be given the first priority. The products are supposed to be used promptly after purchase in consideration of safety. Some new information or amendments may be added afterwards. If the products are to be used far behind the expected time of use or you have any questions, please feel free to contact us. The stated cautions are for normal handling only. In case of special handling operations, sufficient care should be taken, in addition to the safety measures suitable for the given situation. All chemical products should be treated with the recognition of "having unknown hazards and toxicity", which differ greatly depending on the conditions and handling when in use and/or the conditions and duration of storage. The products must be handled only by those who are familiar with specialized knowledge and have experience or under the guidance of those specialists throughout use from opening to storage and disposal. Safe usage conditions shall be set up on each user's own responsibility.