Material Safety Data Sheet

O-CHLOROANILINE

Version: 02.01
Revision date: 22/05/2021

1. Identification of the substance and of the company/undertaking

1.1 Product and company identification

Chemical name:	O-CHLOROANILINE
Product name:	O-CHLOROANILINE ; OCA;
Other names:	2- CHLOROANILINE

Recommended use of the chemical and restrictions on use

Identified uses	For industry use only.

Supplier's details

Manufacturer:	JIANGSU XIANGYUAN CHEMICAL CO., LTD.
Address:	HUANGHAI 5th ROAD YANGKOU CHEMICAL INDUSTRIAL PARK, RUDONG CITY, JIANGSU PROVINCE, 226407, CHINA
Telephone:	+86-513-81903466
Exporter:	SUZHOU XIANGYUAN NEW MATERIALS CO., LTD.
Address:	NO. 25, PINGSI ROAD, SUZHOU, CHINA 215001
Contact person(E-mail):	JANELUO@CHINAMBOCA.COM
Telephone:	+86-512-6753-6550
Fax:	+86-512-6754-5159

1.2 Emergency telephone Number:

+86 (025) 85477110

Available outside office hours? YES ☐ NO ■

2. Hazards Identification

2.1 Classification of the substance or mixture

Hazard classes/Hazard categories	Hazard Statement codes
Acute Tox. 3	H301
Acute Tox. 3	H311
Eye Irrit. 2	H319
Acute Tox. 3	H331
Muta. 2	H341
STOT RE 2	H373
Aquatic Chronic 1	H410

For the ful test of the H-Statements mentioned in this Section, see Section 2.2.

2.2 Label elements, including precautionary statements

Hazard pictograms

Signal word: Danger

Hazard statements

H301+H311+H331	Toxic if swallowed, in contact with skin or if inhaled.
H318	Causes serious eye irritation.
H373	May cause damage to organs through prolonged or repeated exposure.
H410	Very toxic to aquatic life with long lasting effects.
H341	Suspected of causing genetic defects .

Precautionary statements

Prevention

P264	Wash thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P271	Use only outdoors or in a well-ventilated area.
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/vapours/spray.
P273	Avoid release to the environment.

Response

P301+P310	IF SWALLOWED: Immediately call a POISON CENTER/doctor/…
P321	Specific treatment (see ... on this label).
P330	Rinse mouth.
P302+P352	IF ON SKIN: Wash with plenty of water/...
P312	Call a POISON CENTER/doctor/…if you feel unwell.
P361+P364	Take off immediately all contaminated clothing and wash it before reuse.
P271	Use only outdoors or in a well-ventilated area.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313	If eye irritation persists: Get medical advice/attention.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P311	Call a POISON CENTER/doctor/…
P308+P313	IF exposed or concerned: Get medical advice/ attention.
P314	Get medical advice/attention if you feel unwell.
P391	Collect spillage.

Storage

P405	Store locked up.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.

Disposal

P501	Dispose of contents/container in accordance with local/regional/national/ international regulations.

2.3 Other hazards

None known.

3. Composition/information on ingredients

Components	O-CHLOROANILINE
CAS Number	95-51-2
EC Number	202-426-4
Formula	C_6H_6CLN
Molecular Weight	127.6 g/mol
Concentration	**>**99.90%

4. First aid measures

4.1 Description of necessary first-aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled

Fresh air, rest. Artificial respiration may be needed. Refer for medical attention.

In case of skin contact

Remove contaminated clothes. Rinse and then wash skin with water and soap. Refer for medical attention .

In case of eye contact

First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then refer for medical attention.

If swallowed

Rinse mouth. Give one or two glasses of water to drink. Refer for medical attention .

4.2 Most important symptoms/effects, acute and delayed

SYMPTOMS: Symptoms of exposure to this compound may include headache, nausea, vomiting, jaundice, convulsions, severe kidney damage, liver damage, methemoglobin formation and in sufficient concentrations, cyanosis; skin and eye irritation; and dermatitis. Onset may be delayed 2-4 hours or longer. ACUTE/CHRONIC HAZARDS: This compound is toxic by ingestion, inhalation and contact with the skin. It may cause irritation of the skin.

4.3 Indication of immediate medical attention and special treatment needed, if necessary

Methylene blue, alone or in combination with oxygen, is indicated as treatment in nitrite-induced methemoglobinemia.

5. Fire-Fighting measures

5.1 Extinguishing media

Suitable extinguishing media: Water. Carbon dioxide(CO_2), foam, dry chemical powder, or appropriate foam.
Unsuitable extinguishing media: For this substance no limitations of extinguishing agents are given.

5.2 Special hazards arising from the substance or mixture.

Combustible material
Vapours are heavier than air and may spread along floors.
Forms explosive mixtures with air on intense heating.
Development of hazardous combustion gases or vapours possible in the event of fire.
Fire may cause evolution of: Hydrogen chloride gas, nitrogen oxides.

5.3 Advice for firefighters

Special protective equipment for fire-fighters

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

Further information

Cool closed containers exposed to fire with water spray. Suppress(knock down) gases/vapours/mists with a water spray jet.
Prevent fire extinguishing water from contaminating surface water or the ground water system.

6. Accidental release measures

6.1 Personal precautions

Advice for non-emergency personnel: Do not breathe vapours, aerosols. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert.

Advice for emergency responders: Protective equipments see section 8.

6.2 Environmental precautions

Do not empty into drains.

6.3 Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills.
Observe possible material restrictions (see section 7.2 and 10.5).
Take up with liquid-absorbent material. Dispose of properly. Clean up affected area.

6.4 Reference to other sections

Indications about waste treatment see section 13.

7. Handling and storage

7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Avoid exposure - obtain special instructions before use.Provide appropriate exhaust ventilation at places where dust is formed. Observe label precautions.

7.2 Conditions for safe storage, including any incompatibilities

Tightly closed. Keep in a well-ventilated place. Keep locked up or in an area accessible only to qualified or authorised persons.

8. Exposure control/personal protection

8.1 Control parameters

Occupational Exposure limit values

no data available

Biological limit values

no data available

8.2 Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

8.3 Individual protection measures, such as personal protective equipment (PPE)

Eye/face protection

Safety glasses with side-shields conforming to EN166. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Wear impervious clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace. Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique(without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Respiratory protection

Wear dust mask when handling large quantities.

Thermal hazards

no data available

9. Physical and chemical properties

Form	Liquid.	
Appearance	Light yellow to colorless transparent oil liquid	
pH	N/A	
Boiling Point or Initial Boiling Point	209℃	
Crystallizing Point	-2.3℃	
Flash Point	97℃	Method: closed cup
Flammability	N/A	

Auto ignition Temp	>500℃
Oxidizing Properties	N/A
Explosive Properties	N/A
Explosion Limits	Lower:2.4% Upper:14.2%
Vapor Pressure	27.1 Pa @ 25℃
SG/Density	1.213 g/m³
Partition Coefficient	Log Kow :1.9
Viscosity	N/A
Vapor Density	4.4g/l
Saturated Vapor Conc.	N/A
Evaporation Rate	N/A
Bulk Density	N/A
Decomposition Temp	N/A
Solvent Content	N/A
Water Solubility	5.13 - 5.6 g/L at 20℃
Surface Tension	N/A
Conductivity	N/A
Miscellaneous Date	N/A

10. Stability and reactivity

10.1 Reactivity

no data available

10.2 Chemical stability

Darkens on exposure to air.

10.3 Possibility of hazardous reactions

O-CHLOROANILINE is incompatible with acids, acid chlorides, acid anhydrides, chloroformates and strong oxidizing agents.

10.4 Conditions to avoid

no data available

10.5 Incompatible materials

Darkens with exposure to air. (TOXNET HSDB)

10.6 Hazardous decomposition products

When heated to decomposition, it emits toxic fumes of /hydrogen chloride and nitrogen oxides.

11. Toxicological information

11.1 Information on toxicological effects

Acute oral toxicity	LD50 Mouse 256 mg/kg
Acute Inhalation toxicity	Rat 797 ppm 4H Remarks: Lungs, Thorax, or Resprration :Cyanosis. Behavioral: Tremor. Sense Organs and Special Senses (nose, eye, ear, and taste): Eye: Corneal damage.
Skin irritation	LD50 Cat 222 mg/kg
Eye irritation	Rabbit Causes: Eye irritation
Acute dermal toxicity	LD50 Dose: ca. 1.000 mg/kg

Specific target organ toxicity-single exposure

The substance or mixture is not classified as specific traget organ toxicant, single exposure.

Speciific traget organ toxicity- repeated exposure

May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard

No aspiration toxicity classification.

11.2 Further information

Further information

Systemic effects:

After absorption:

haemolysis, headache, nausea, vomiting, jaundice.

Damage to:

Kidney, liver.

Effect potentiated by: ethanol

Danger of cumulative effects.

Other information:

The following applies to aromatic amines in general: systemic effect: methaemoglobinaemia with headache, cardiac dysrhythmia, drop in blood pressure, dysponoea, and spasms, principal symptom: cyanosis(blue discolouration of the blood).

Further data:

This substance should be handled with particular care.

12. Ecological information

ELIMINATION
Elimination: 94%

Ecotoxicological effects:

Test Type: EC50 Algae
Species: Scenedesmus subspicatus
Time:96 h
alue:35 mg/l

Test Type: EC50 Algae
Species :Scenedesmus subspicatus
Time: 72h
Value:150 mg/l

Test type:LC0 Fish
Species: Leuciscus idus
Time:48h
Value:2mg/l

Test Type: LC50 Fish
Species: Pimephales promelas (Fathead minnow)
Time:96 h
Value:5.7 mg/l

Test Type: EC50 Daphnia
Species:Daphnia magna
Time:48 h
Value:1.8 mg/l

Mobility in soil:

No information available.

Other adverse effects:

Additional ecological information

Do not allow to run into surface waters, wastewater, or soil.

13. Disposal considerations

13.1 Disposal methods

Product

The material can be disposed of by removal to a licensed chemical destruction plant or by controlled incineration with flue gas scrubbing. Do not contaminate water, foodstuffs, feed or seed by storage or disposal. Do not discharge to sewer systems.

Contaminated packaging

Containers can be triply rinsed (or equivalent) and offered for recycling or reconditioning. Alternatively, the packaging can be punctured to make it unusable for other purposes and then be disposed of in a sanitary landfill. Controlled incineration with flue gas scrubbing is possible for combustible packaging materials.

14. Transport information

RID/ADR
UN#:2019
Class:6.1
PG:II
Proper Shipping Name: CHLOROANILINES ,liquid

IMDG
UN#:2019
Class: 6.1
Proper Shipping Name: CHLOROANILINES ,liquid
EMS: F-A S-A

IATA
UN#:2019
Class:6.1
PG:II
Proper Shipping Name : CHLOROANILINES ,liquid
Inhalation Packing Group I :No

15. Regulatory information

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

Chemical name	Common names and synonyms	CAS number	EC number
O-Chloroaniline	O-Chloroaniline	95-51-2	202-426-4
European Inventory of Existing Commercial Chemical Substances (EINECS)			Listed.
EC Inventory			Listed.
United States Toxic Substances Control Act (TSCA) Inventory			Listed.
China Catalog of Hazardous chemicals 2015			Listed.
New Zealand Inventory of Chemicals (NZIoC)			Listed.
Philippines Inventory of Chemicals and Chemical Substances (PICCS)			Listed.
Vietnam National Chemical Inventory			Not Listed.
Chinese Chemical Inventory of Existing Chemical Substances (China IECSC)			Listed.

16. Other information

Information on revision

Revision Date 22/ 05/ 2021

Abbreviations and acronyms

CAS: Chemical Abstracts Service

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
RID: Regulation concerning the International Carriage of Dangerous Goods by Rail
IMDG: International Maritime Dangerous Goods
IATA: International Air Transportation Association
TWA: Time Weighted Average
STEL: Short term exposure limit
LC50: Lethal Concentration 50%
LD50: Lethal Dose 50%
EC50: Effective Concentration 50%

References

IPCS - The International Chemical Safety Cards (ICSC), website: http://www.ilo.org/dyn/icsc/showcard.home
HSDB - Hazardous Substances Data Bank, website: https://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm
IARC - International Agency for Research on Cancer, website: http://www.iarc.fr/
eChemPortal - The Global Portal to Information on Chemical Substances by OECD, website: http://www.echemportal.org/echemportal/index?pageID=0&request_locale=en
CAMEO Chemicals, website: http://cameochemicals.noaa.gov/search/simple
ChemIDplus, website: http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp
ERG - Emergency Response Guidebook by U.S. Department of Transportation, website: http://www.phmsa.dot.gov/hazmat/library/erg
Germany GESTIS-database on hazard substance, website: http://www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index-2.jsp
ECHA - European Chemicals Agency, website: https://echa.europa.eu/

Training advice:

Provid adequate information, instruction and training for operators.
Employers should use this information only as a supplement to other information gathered by them, and should make independent judgment of suitability of this information to ensure proper use and protect the health and safety of employees.

Further information:
Regional representation: This information is given on the authorised Safety Data Sheet for your country.

This information is furnished without warranty, and any use of the product not in conformance with this Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.

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

Please visit our Product Stewardship web site at www.chinamboca.cn.