Section 1. Identification

Product Identity Ortho-Chlorotoluene
Other means of identification O-Chlorotoluene, OCT

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

Only for production, research and development.

Details of the supplier of the safety data sheet

Company Name
Silver Fern Chemical, Inc.
121 W. De La Guerra Street, Suite B
Santa Barbara, CA 93101 USA
Customer Service: 1-866-282-3384 /
info@silverfernchemical.com
Website - www.silverfernchemical.com

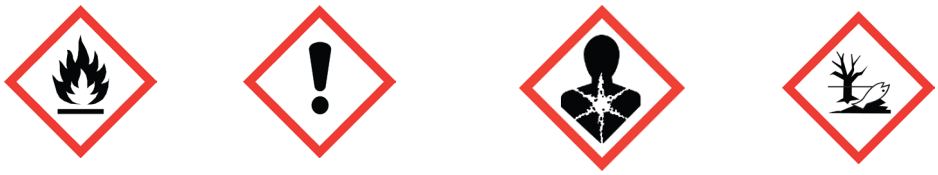
24-hour Emergency Telephone No.
Infotrac: 1-800-535-5053
Outside USA & Canada +1-352-323-3500

Section 2. Hazard(s) identification

Classification of the substance or mixture under OSHA's Hazard Communication Standard (1910.1200) revised 2024 (GHS revision 7)

Flammable Liquid, category 3;H226	Flammable liquid and vapor.
Acute toxicity(inhalation), category 4;H332	Harmful if inhaled.
Acute toxicity (oral), category H303	Harmful if swallowed
Reproductive toxicity, category H361	May damage fertility or the unborn child.
Aquatic toxicity (chronic), category 2;H411	Toxic to aquatic life with long lasting effects.

Label elements



Warning

H226 Flammable liquid and vapor.
H303 May be harmful if swallowed.
H332 Harmful if inhaled.
H361 Suspected of damaging fertility or the unborn child
H400 Very toxic to aquatic life
H411 Toxic to aquatic life with long lasting effects.

[Prevention]
P210 Keep away from heat, sparks, open flames, and other ignition sources - No smoking.
P233 Keep container tightly closed.
P235 Keep cool.
P240 Ground, bond container and receiving equipment.
P241 Use explosion-proof electrical, ventilating, light, equipment.
P242 Use only non-sparking tools.
P243 Take action to prevent static discharges.
P261 Avoid breathing dust, fume, gas, mist, vapors, spray.
P271 Use only outdoors or in a well-ventilated area.
P273 Avoid release to the environment.
P280 Wear protective gloves, eye protection, and face protection.
[Response]
P301+P317 IF SWALLOWED: Get medical help.
P303+361+353 IF ON SKIN (or hair): Remove, take off immediately all contaminated clothing. Rinse skin with water, shower.
P304+340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P312 Call a POISON CENTER, doctor or physician if you feel unwell.
P318 IF exposed or concerned: Get medical advice.
P370+378 In case of fire: Use extinguishing media listed in section 5 of SDS for extinction.
P391 Collect spillage.
[Storage]
P403+235 Store in a well-ventilated place. Keep cool.
P405 Store locked up.
[Disposal]
P501 Dispose of contents or container in accordance with local and national regulations.

Other hazards
This product contains no PBT/vPvB/vPvM chemicals.
This product contains no endocrine disrupting chemicals.

Does not contain component(s) that meet a 'definition' of per & poly fluoroalkyl substance (PFAS) per the Organisation for Economic Co-operation and Development (OECD) list of Per- and Polyfluoroalkyl Substances (PFASs).

Section 3. Composition/information on ingredients

This product contains the following substances that present a hazard within the meaning of the OSHA's Hazard Communication Standard (1910.1200) revised 2024 (GHS revision 7).

Ingredient/Chemical Designations	Weight %	GHS Classification	Notes
2-chlorotoluene **CAS Number: 95-49-8** **Synonyms: Chlorotoluene**	**≥ 99.6**	**Acute toxicity(inhalation), category 4;H332** **Aquatic toxicity (chronic), category 2;H411**	**No data available**

The actual concentration or concentration range is withheld as a trade secret.
*PBT/vPvB - PBT, vPvM or vPvB-substance.
The full texts of the phrases are shown in Section 16.

Section 4. First aid measures

Description of first aid measures

General In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person.

Inhalation Remove to fresh air, keep patient warm and at rest. If breathing is irregular or stopped, give artificial respiration. If unconscious, place in the recovery position and obtain immediate medical attention. Give nothing by mouth.

Eyes Rinse with plenty of clean water for at least 15 minutes, holding the eyelids apart and seek medical attention.

Skin Remove contaminated clothing. Wash skin thoroughly with soap and water or use a recognized skin cleanser.

Ingestion If swallowed obtain immediate medical attention. Keep at rest. Do NOT induce vomiting.

Most important symptoms and effects, both acute and delayed

Overview No specific symptom data available.
No chronic toxicity or long-term toxicity information available. Treat symptomatically. See section 2 for further details.

Inhalation Harmful if inhaled.

Section 5. Fire-fighting measures

Extinguishing media

Recommended extinguishing media; alcohol resistant foam, CO_2, powder, water spray.
Unsuitable extinguishing media: Do not use; water jet.

Special hazards arising from the substance or mixture

Hazardous decomposition: Flammable, its vapor can mix with air to form explosive mixtures. There is a risk of fire and explosion when in contact with prohibited substances such as strong oxidants. Under the influence of heating and moisture, it gradually decomposes and releases carbon oxides and highly corrosive hydrogen chloride gas.
Keep away from heat, sparks, open flames, and other ignition sources - No smoking.
Keep container tightly closed.
Keep cool.
Ground, bond container and receiving equipment.
Use explosion-proof electrical, ventilating, light, equipment.
Use only non-sparking tools.
Take action to prevent static discharges.

Avoid breathing dust, fume, gas, mist, vapors, spray.

Advice for fire-fighters

As with all fires, wear positive pressure, self-contained breathing apparatus, (SCBA) with a full-face piece and protective clothing. Persons without respiratory protection should leave area. Wear SCBA during clean-up immediately after fire. No smoking. Spray water to suppress gas/vapor/mist droplets. Prevent fire water from contaminating surface and groundwater systems.

ERG Guide No. 129

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Put on appropriate personal protective equipment (see section 8).
Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.
Ensure adequate ventilation. Remove all sources of ignition. Beware of vapors accumulating to form explosive concentrations. Ventilate closed spaces before entering.
Keep unnecessary personnel away.

Environmental precautions

Do not allow spills to enter drains or waterways.

Methods and material for containment and cleaning up

Ventilate the area and avoid breathing vapors. Take the personal protective measures listed in section 8. Minor leakage: Absorb with sand or other non combustible materials. Use clean, spark free tools to collect absorbing materials.
Large amount of leakage: Build embankments or dig pits for containment. Cover with foam to reduce evaporation. Spray mist can reduce evaporation, but it cannot reduce the flammability of leaked materials in limited spaces. Transfer to the tank truck or dedicated collector using an explosion-proof pump.
Contain and absorb spillage with non-combustible materials e.g. sand, earth, and vermiculite. Place in closed containers outside buildings and dispose of according to the Waste Regulations.

Section 7. Handling and storage

Precautions for safe handling

Handle containers carefully to prevent damage and spillage. Closed operation, enhanced ventilation. Operators must be specially trained and strictly abide by the operating rules. It is recommended that operators wear self-contained filter gas mask (half mask), chemical safety protective glasses, anti-static work clothes and anti-chemical gloves. Keep away from fires and heat sources. Smoking is strictly prohibited in the workplace. Use explosion-proof ventilation systems and equipment. Do not use spark-prone tools. Take antistatic measures. Prevent vapor from leaking into workplace air. Avoid inhalation, ingestion, contact with eyes and skin, and wash thoroughly after operation. Avoid contact with oxidants. The flow rate should be controlled when filling, and there is a grounding device to prevent the accumulation of static electricity. Handle with care to prevent damage to packing and container. Equipped with the appropriate variety and quantity of firefighting equipment and leakage emergency treatment equipment. Empty containers may retain harmful residue.
Keep away from heat, sources of ignition - No smoking. Take measures to prevent the buildup of electrostatic charge. Vapors may form explosive mixture with air.
See section 2 for further details. - [Prevention]

Conditions for safe storage, including any incompatibilities

Incompatible materials: Keep in a cool, dry, well-ventilated place. Keep away from fire and heat source. Keep tightly closed until used. Containers which are opened must be carefully resealed and kept upright to prevent leakage.
Stay away from incompatible substances such as strong oxidants, alkali metals, dimethyl sulfoxide, etc.
The storage area should be equipped with the corresponding variety and quantity of firefighting equipment, leakage emergency treatment equipment and suitable containment
materials.
See section 2 for further details. - [Storage]

Specific end use(s)

No available information

Section 8. Exposure controls / personal protection

Control parameters

Exposure Limits

CAS No.	Ingredient	Source	Value
95-49-8	2-chlorotoluene	OSHA	No Established Limit
		ACGIH	50 ppm
		NIOSH	TWA 50 ppm (250 mg/m^3) STEL: 75 ppm (375 mg/m^3)

Exposure controls

Respiratory If workers are exposed to concentrations above the exposure limit, they must use the appropriate, certified respirators.

Eyes Protective safety glasses recommended

Skin Avoid skin contact. Protective gloves recommended.

Engineering Controls Provide adequate ventilation. Where reasonably practicable this should be achieved using local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and any vapor below occupational exposure limits suitable respiratory protection must be worn.

Other Work Practices Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

See section 2 for further details.

Section 9. Physical and chemical properties

Information on basic physical and chemical properties

Physical State	Liquid
Color	Clear
Odor	Slightly Pungent Odor
Odor threshold	No available information
Melting point / freezing point	-36 °C
Initial boiling point and boiling range	157 °C - 159 °C -lit.
Flammability (solid, gas)	Flammable
Upper/lower flammability or explosive limits	**Lower Explosive Limit:** No available information **Upper Explosive Limit:** No available information
Flash Point	43 °C (Closed cup)

Auto-ignition temperature	No available information
Decomposition temperature	No available information
pH	No available information
Viscosity (cSt)	No available information
Solubility in Water	0.047 g/L (20 ℃)
Partition coefficient n-octanol/water (Log Kow)	Partition coeff: n-octanol/water: 3.42
Vapor pressure (Pa)	3.5 mbar (20 °C)
Relative Density	1.083
Vapor Density	4.38
Evaporation rate (Ether = 1)	No available information
Oxidising properties	No available information
Explosive properties	No available information

Other information
No other relevant information.

Section 10. Stability and reactivity

Reactivity
Hazardous Polymerization will not occur.
Chemical stability
Stable under normal circumstances.
Possibility of hazardous reactions
Reacts violently with oxidants.
Conditions to avoid
Avoid high temperatures and contact with incompatible material. Heat and flame and spark. Incompatibles. The extreme temperatures and direct sunlight. Static discharge.
Incompatible materials
Strong oxidant, alkali metal, dimethyl sulfoxide
Hazardous decomposition products
Under the influence of heating and moisture, it gradually decomposes and releases carbon oxides and highly corrosive hydrogen chloride gas.

Section 11. Toxicological information

Acute toxicity

Note: When no route specific LD50 data is available for an acute toxin, the converted acute toxicity point estimate was used in the calculation of the product's ATE (Acute Toxicity Estimate).

Ingredient	Oral LD50, mg/kg	Skin LD50, mg/kg	Inhalation Vapor LC50, mg/L/4hr	Inhalation Dust/Mist LC50, mg/L/4hr	Inhalation Gas LC50, ppm
2-chlorotoluene - (95-49-8)	No data available.	No data available.	No data available.	No data available.	No data available.

Carcinogen Data

CAS No.	Ingredient	Source	Value
95-49-8	2-chlorotoluene	OSHA	Regulated Carcinogen: No;
		NTP	Known: No; Suspected: No;
		IARC	No
		ACGIH	No Established Limit

Classification	Category	Hazard Description
Acute toxicity (oral)	5	May be harmful if swallowed
Acute toxicity (dermal)	---	Not Applicable
Acute toxicity (inhalation)	4	Harmful if inhaled.
Skin corrosion/irritation	---	Not Applicable
Serious eye damage/irritation	---	Not Applicable
Respiratory sensitization	---	Not Applicable
Skin sensitization	---	Not Applicable
Germ cell mutagenicity	---	Not Applicable
Carcinogenicity	---	Not Applicable
Reproductive toxicity	2	Suspected of damaging fertility or the unborn child
STOT-single exposure	---	Not Applicable
STOT-repeated exposure	---	Not Applicable
Aspiration hazard	---	Not Applicable

Possible routes of entry: No available information

Symptoms and effects, both acute and delayed:

No specific symptom data available.

No chronic toxicity or long-term toxicity information available. Treat symptomatically.

Section 12. Ecological information

Toxicity
Toxic to aquatic life with long lasting effects.
No additional information provided for this product. See Section 3 for chemical specific data.
Aquatic Ecotoxicity

Ingredient	96 hr LC50 fish, mg/L	48 hr EC50 crustacea, mg/L	ErC50 algae, mg/L
2-chlorotoluene - (95-49-8)	No data available.	No data available.	No data available.

Persistence and degradability
There is no data available on the preparation itself.
Bioaccumulative potential
No available information
Mobility in soil
No available information
Results of PBT and vPvB assessment
This product contains no PBT/vPvB/vPvM chemicals.
Other adverse effects
No available information

Section 13. Disposal considerations

Waste treatment methods
Observe all federal, provincial and local regulations when disposing of this substance.

Section 14. Transport information

	DOT (Domestic Surface Transportation)	IMO / IMDG (Ocean Transportation)	ICAO/IATA
UN number	UN2238	UN2238	UN2238

UN proper shipping name	UN2238,Chlorotoluenes,3,III	Chlorotoluenes	Chlorotoluenes
Transport hazard class(es)	**Class:**3 **Sub Class:** Not Applicable	**Class:**3 **Sub Class:** Not Applicable	**Class:**3 **Sub Class:** Not Applicable
Packing group	III	III	III

Environmental hazards

IMDG Marine Pollutant: Yes; (2-chlorotoluene)

Special precautions for user

No available information

Section 15. Regulatory information

Regulatory Overview The regulatory data in Section 15 is not intended to be all-inclusive, only selected regulations are represented.

Classification of the substance or mixture under OSHA's Hazard Communication Standard (1910.1200) revised 2024 (GHS revision 7)

Toxic Substance Control Act (TSCA)

CAS Number	Ingredient	Toxic Substance Control Act (TSCA)	Comments	Status
0000095-49-8	2-chlorotoluene	Yes		ACTIVE

The following flags are used:
•Active - indicates commercial status designation of active
•E - indicates a substance that is the subject of a Section 5(e) Consent Order under TSCA.
•F - indicates a substance that is the subject of a Section 5(f) Rule under TSCA.
•N - indicates a polymeric substance containing no free-radical initiator in its Inventory name but is considered to cover the designated polymer made with any free-radical initiator regardless of the amount used.
•P - indicates a commenced Premanufacture Notice (PMN) substance.
•R - indicates a substance that is the subject of a Section 6 risk management rule under TSCA.
•S - indicates a substance that is identified in a final Significant New Uses Rule.
•SP - indicates a substance that is identified in a proposed Significant New Uses Rule.
•T - indicates a substance that is the subject of a final Section 4 test rule under TSCA.
•UVCB Chemical Substances of Unknown or Variable Composition, Complex Reaction Products and Biological Materials •XU - indicates a substance exempt from reporting under the Chemical Data Reporting Rule, (40 CFR 711).
•Y1 - indicates a polymer that has a number-average molecular weight greater than 1,000 and that was exempt under the 1984 polymer exemption rule.

•Y2 - indicates a polymer that is a polyester and that was exempt under the 1984 polymer exemption rule.

EPCRA 302 Extremely Hazardous:
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

EPCRA 313 Toxic Chemicals:
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Carcinogens (>0.0%):
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Developmental Toxins (>0.0%):
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Female Repro Toxins (>0.0%):
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Male Repro Toxins (>0.0%):
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 Label Warning:
This product contains no chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

Mass RTK Substances (>1%) :
2-chlorotoluene

New Jersey RTK Substances (>1%):
2-chlorotoluene

Pennsylvania RTK Substances (>1%):
2-chlorotoluene

OSHA Process Safety Management Standard Highly Hazardous Chemicals, Toxics and Reactives:

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

US EPA List of Regulated Substances under the Risk Management Plan (RMP) Program:
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

US EPA Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) under the Minimum Risk Exemption:
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

U.S. - DEA List II or Essential Chemicals:
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

U.S. - DEA - Exempt Chemical Mixtures - List 1 and 2:
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

US DHS Chemical Facility Anti-Terrorism Standards (CFATS):
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

EPCRA 311/312 Chemicals and RQs:
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Section 16. Other information

Revision Date 08/19/2025

DISCLAIMER OF RESPONSIBILITY
The information on this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. Some information presented and conclusions drawn herein are from sources other than direct test data on the substance itself. The conditions or methods of handling, storage, use and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume

damage or expense arising out of or in any way responsibility and expressly disclaim liability for loss, connected with handling, storage, use, or disposal of this product. If the product is used as a component in another product, this SDS information may not be applicable.

The full text of the phrases appearing in section 3 is:

H332 Harmful if inhaled.
H303 Harmful if swallowed

H361 May damage fertility or the unborn child.

H411 Toxic to aquatic life with long lasting effects.

H226 Flammable liquid and vapor.

End of Document

Approved BR 8-25-2025