

SECTION 1) CHEMICAL PRODUCT AND SUPPLIER'S IDENTIFICATION

CAS Number: 25013-15-4 (Vinyltoluene)
Product Name: Vinyl Toluene
Revision Date: Aug 15, 2018 **Date Printed:** Nov 11, 2020
Version: 1.0 **Supersedes Date:** N.A.
Manufacturer's Name: Thames River Chemical Corp.
Address: 5230 Harvester Road Burlington, ON, CA, L7L 4X4
Emergency Phone: CHEMTREC (800) 424-9300
Information Phone Number: 905-681-5353
Fax: 905-681-5377
Product/Recommended Uses: For laboratory or industrial use only.

SECTION 2) HAZARDS IDENTIFICATION

Classification

Acute aquatic toxicity - Category 3
Acute toxicity Oral - Category 5
Chronic aquatic toxicity - Category 3
Eye Irritation - Category 2A
Flammable Liquids - Category 3
Germ Cell Mutagenicity - Category 2
Skin Irritation - Category 2
Specific Target Organ Toxicity - Repeated Exposure - Category 1
Specific Target Organ Toxicity -Single Exposure (Narcotic Effects) - Category 3
Specific Target Organ Toxicity -Single Exposure (Respiratory Tract Irritation) - Category 3

Pictograms



Signal Word

Danger

Hazard Statements - Health

May be harmful if swallowed
Causes serious eye irritation
Suspected of causing genetic defects.
Causes skin irritation
Causes damage to organs through prolonged or repeated exposure.
May cause drowsiness or dizziness

May cause respiratory irritation

Hazard Statements - Physical

Flammable liquid and vapor

Hazard Statements - Environmental

Harmful to aquatic life with long lasting effects

Precautionary Statements - General

If medical advice is needed, have product container or label at hand.

Keep out of reach of children.

Read label before use.

Precautionary Statements - Prevention

Avoid release to the environment.

Wash/Wash hands thoroughly after handling.

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

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Keep container tightly closed.

Ground/bond container and receiving equipment.

Use explosion-proof electrical, ventilating, lighting equipment.

Use only non-sparking tools.

Take action to prevent static discharges.

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

Do not breathe dust/fume/gas/mist/vapors/spray.

Do not eat, drink or smoke when using this product.

Use only outdoors or in a well-ventilated area.

Precautionary Statements - Response

Call a POISON CENTER or doctor, if you feel unwell.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

If eye irritation persists: Get medical advice/attention.

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

In case of fire: Use carbon dioxide, alcohol foam, water spray or dry chemical to extinguish.

IF exposed or concerned: Get medical advice/attention.

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

Specific treatment (see first-aid on the SDS).

If skin irritation occurs: Get medical advice/attention.

Take off contaminated clothing. And wash it before reuse.

Get Medical advice/attention if you feel unwell.

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

Precautionary Statements - Storage

Store in a well-ventilated place. Keep cool.

Store locked up.

Store in a well-ventilated place. Store locked up.

Precautionary Statements - Disposal

Dispose of contents/container in accordance with local/national/international regulation. Waste management should be in full compliance with national, regional and local laws.

Physical Hazards Not Otherwise Classified

No data available.

Health Hazards Not Otherwise Classified

No data available.

SECTION 3) COMPOSITION/INFORMATION ON INGREDIENTS

CAS	Chemical Name	% By Weight
0025013-15-4	VINYL TOLUENE	99% - 100%

Specific chemical identity and/or exact percentage (concentration) of the composition has been withheld to protect confidentiality or to reflect batch to batch variation.

SECTION 4) FIRST-AID MEASURES

Inhalation

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

Remove source of exposure or move person to fresh air and keep comfortable for breathing. If breathing is difficult, trained personnel should administer emergency oxygen if advised to do so by the POISON CENTER/doctor.

Eye Contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.

If easy to do, remove contact lens, if worn.

Protect unharmed eye.

Keep eye wide open while rinsing.

If eye irritation persists, consult a specialist.

Skin Contact

Wash off with soap and plenty of water. Consult a physician.

Take off immediately all contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Store contaminated clothing under water and wash before re-use or discard. Rinse skin with water/shower and mild soap for 5 minutes or until product is removed.

Ingestion

Rinse mouth. Never give anything through mouth to an unconscious person. Call a POISON Center or doctor if you feel unwell.

SECTION 5) FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Use dry chemical, CO₂, water spray or alcohol resistant foam.

Unsuitable Extinguishing Media

Avoid the use of water due to the danger of spreading the burning material. This substance does not mix with water.

Specific Hazards in Case of Fire

Flammable vapors will be released at or above liquid flashpoint. Vapors are heavier than air and may spread along floors. Cool containers with sprayed water to avoid overheating. Burning produces obnoxious and toxic fumes: CO, CO_x.

Containers may explode in fire.

Fire-fighting Procedures

Isolate immediate hazard area and keep unauthorized personnel out. Move undamaged containers from immediate hazard area if it can be done safely. Stop spill/release if it can be done safely. Cool containers with flooding quantities of water until well after fire is out.

Caution should be exercised when using water or foam as frothing may occur, especially if sprayed into containers of hot, burning liquid.

Dispose of fire debris and contaminated extinguishing water in accordance with official regulations. Product has a low flashpoint: Use of water spray when fighting fire may be inefficient. Large Fire: Dike fire-control water for later disposal; do not scatter the material

Special Protective Actions

Wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear. Structural firefighters' protective clothing

provides limited protection in fire situations ONLY; it is not effective in spill situations where direct contact with the substance is possible.

SECTION 6) ACCIDENTAL RELEASE MEASURES

Emergency Procedure

Stay uphill and/or upstream. Do not touch damaged containers or spilled materials unless wearing appropriate protective clothing. Ventilate closed spaces before entering. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). All equipment used when handling the product must be grounded. Evacuate and isolate hazard area and keep unauthorized personnel away. A vapor-suppressing foam may be used to reduce vapors.

Recommended Equipment

Wear chemical protective clothing and positive pressure self-contained breathing apparatus (SCBA).

Personal Precautions

Avoid breathing vapor or mist. Avoid contact with skin, eye or clothing.

Environmental Precautions

Stop spill/release if it can be done safely. Prevent spilled material from entering sewers, storm drains, other unauthorized drainage systems and natural waterways by using sand, earth, or other appropriate barriers. Dike far ahead of liquid spill for later disposal.

Methods and Materials for Containment and Cleaning up

Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers. Use clean, non-sparking tools to collect absorbed material. Ventilate area after clean-up is complete.

SECTION 7) HANDLING AND STORAGE

General

Take precautionary measures against static discharges. Wash hands after use. Do not get in eyes, on skin or on clothing. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. Use good personal hygiene practices. Eating, drinking and smoking in work areas is prohibited. Remove contaminated clothing and protective equipment before entering eating areas. Use pneumatic and/or mechanical systems for bulk transfer of the substance. Use exhaust ventilation and/or dust collecting filters for bulk transfer and storage. Use approved respiratory protection when handling. Keep bulk of materials out of sewer drains.

Ventilation Requirements

Use only with adequate ventilation to control air contaminants to their exposure limits. Report ventilation failures immediately. The use of local ventilation is recommended to control emissions near the source.

Storage Room Requirements

Keep at temperatures below 30°C. Keep away from direct sunlight. Keep containers tightly closed in a cool, well-ventilated place. Avoid contact with heat sources, ignition sources, oxidizing agents, acids, bases and peroxides. Store in dry, cool areas, out of direct sunlight and away from other sources of heat. Store in original containers. Keep containers securely sealed. Keep away from incompatible materials (e.g. oxidizers). Keep containers securely sealed when not in use. Bond and ground metal containers/cylinders when transferring. Avoid storing in direct sunlight or near other heat sources; eliminate all sources of ignition. Protect containers against banging or other physical damage when storing, transferring, or using them.

SECTION 8) EXPOSURE CONTROLS/PERSONAL PROTECTION

Eye protection

Wear indirect-vent, impact and splash resistant goggles when working with liquids

Skin Protection

Use of gloves approved to relevant standards made from the following materials may provide suitable chemical protection: PVC, neoprene or nitrile rubber gloves. Suitability and durability of a glove is dependent on usage, e.g. frequency and duration of contact, chemical resistance of glove material, glove thickness, dexterity. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace. Always seek advice from glove suppliers. Contaminated gloves should be replaced. Use an apron and over-boots of chemically impervious materials such as neoprene or nitrile rubber.

Respiratory Protection

If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker, a respiratory protection program that meets or is equivalent to OSHA 29 CFR 1910.134 should be followed. Check with respiratory protective equipment suppliers.

Appropriate Engineering Controls

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value.

Chemical	CANsmg	CANspgm	CANtmg	CANtppm	OSHA STEL	OSHA STEL	OSHA TWA	OSHA TWA
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Name					(mg/m3)	(ppm)	(mg/m3)	(ppm)
VINYL TOLUENE	483	100	242	50			480	100

Chemical Name	OSHA Carcinogen	OSHA Tables (Z1, Z2, Z3)	OSHA Skin designation	ACGIH STEL (mg/m3)	ACGIH STEL (ppm)	ACGIH TWA (mg/m3)	ACGIH TWA (ppm)	ACGIH TLV Basis
VINYL TOLUENE		1			100		50	URT & eye irr

Chemical Name	ACGIH Carcinogen	ACGIH Notations
VINYL TOLUENE	A4	A4

A4 - Not Classifiable as a Human Carcinogen, irr - Irritation, URT - Upper respiratory tract

SECTION 9) PHYSICAL AND CHEMICAL PROPERTIES

Physical and Chemical Properties

Density	11.68 lb/gal
Specific Gravity	1.40
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Appearance	colorless liquid
Odor Description	hydrocarbon-like
Odor Threshold	N/A
pH	No Data Available
Melting/Freezing Point	-77 °C
Low Boiling Point	171 °C
High Boiling Point	N/A
Flash Point	53 °C
Vapor Pressure	0.24 mmHg
Vapor Density	4.08 g/ml
Evaporation Rate	No Data Available
Upper Explosion Level	N/A
Lower Explosion Level	N/A
Water Solubility	400 ppm at 25°C
Coefficient Water/Oil	No Data Available
Viscosity	0.8 mPa at 25°C

SECTION 10) STABILITY AND REACTIVITY

Reactivity

No data available.

Stability

Stable at room temperature

Conditions to Avoid

Avoid heat, sparks, flame, high temperature, and contact with incompatible materials.

Hazardous Reactions/Polymerization

Polymerization can occur. Polymerization is a highly exothermic reaction and may generate sufficient heat to cause thermal decomposition and/or rupture containers.

Incompatible Materials

Strong acids, oxidizing agents and peroxides

Hazardous Decomposition Products

No data available.

SECTION 11) TOXICOLOGICAL INFORMATION

Likely Route of Exposure

Inhalation, ingestion, skin absorption

Acute Toxicity

Harmful by inhalation. LC50/4 hr = 3000 mg/m³ (rats).

Ingestion may affect the central nervous system. LD50 = 5000 mg/kg (rats).

May be harmful if swallowed

Aspiration Hazard

Based on available data, the classification criteria are not met.

Carcinogenicity

Based on available data, the classification criteria are not met.

Germ Cell Mutagenicity

Suspected of causing genetic defects.

Reproductive Toxicity

Based on available data, the classification criteria are not met.

Respiratory/Skin Sensitization

Based on available data, the classification criteria are not met.

Serious Eye Damage/Irritation

Causes serious eye irritation

Skin Corrosion/Irritation

Causes skin irritation

Specific Target Organ Toxicity - Repeated Exposure

Causes damage to organs through prolonged or repeated exposure.

Specific Target Organ Toxicity - Single Exposure

May cause drowsiness or dizziness

May cause respiratory irritation

Likely Routes of Exposure

Inhalation, Ingestion, Skin contact, Eye contact

SECTION 12) ECOLOGICAL INFORMATION

Toxicity

Ecotoxicity effects :

EC50/72h/algae : 2.6 mg/L (Selenastrum capricornutum). NOEC 1.6 mg/L

Fish toxicity:

EC50/72h/fish : 5.2 mg/L (Pimephales promelas). NOEC 2.6 mg/L

EC50/7d/fish : 2.6 mg/L (Leopomis macrochirus). NOEC 0.66 mg/L

Daphnia toxicity:

EC50/48h/daphnia : 0.81 mg/L (Oncorhynchus mykiss). NOEC 1.6 mg/L

Harmful to aquatic life

Harmful to aquatic life with long lasting effects

Mobility in Soil

No data available.

Bio-accumulative Potential

No data available.

Persistence and Degradability

Biodegradation - more than 95% of para-vinyl toluene was found to be eliminated from activated sludge within 19 days. Vinyl toluene is expected to biodegrade in a wastewater treatment plant.

Photodegradation: para-vinyl toluene has the potential to undergo direct photolysis in sunlit waters or in ambient air, however, reactions with photochemically produced hydroxyl radicals and ozone in the atmosphere are the most likely fate processes. aravinyl toluene has an ESTIMATED atmospheric half-life of 12.2 hrs at 25°C at an atmospheric concentration of 5E+5 hydroxyl radicals per cu cm, and 13 hrs at 25°C at an atmospheric concentration of 7E+11 ozone molecules per cu cm.

Environmental fate and pathway elements: para-vinyl toluene is not expected to undergo hydrolysis in the environment.

Other Adverse Effects

No data available.

SECTION 13) DISPOSAL CONSIDERATIONS

Waste Disposal

Empty Containers retain product residue which may exhibit hazards of material, therefore do not pressurize, cut, glaze, weld or use for any other purposes. It is the responsibility of the user of the product to determine at the time of disposal whether the product meets local criteria for hazardous waste. Waste management should be in full compliance with national, provincial and local laws.

SECTION 14) TRANSPORT INFORMATION

	Transport Canada Information	U.S. DOT Information
UN number:	UN2618	UN2618
Proper shipping name:	Vinyltoluenes, stabilized	Vinyltoluenes, stabilized
Hazard class:	3	
Hazard class:		3
Packaging group:	III	III
Hazardous substance (RQ):		No Data Available
Marine Pollutant:	No Data Available	No Data Available
Note / Special Provision:	Note / Special Provision	No Data Available
Toxic-Inhalation Hazard:		No Data Available
Transport in bulk (according to Annex II of MARPOL 73/78):	No Data Available	

SECTION 15) REGULATORY INFORMATION

CAS	Chemical Name	% By Weight	Regulation List
0025013-15-4	VINYL TOLUENE	99% - 100%	DSL,TSCA,EU_EC_Inventory

SECTION 16) OTHER INFORMATION

Glossary

ACGIH- American Conference of Governmental Industrial Hygienists; ANSI- American National Standards Institute; Canadian TDG- Canadian Transportation of Dangerous Goods; CANsmg or CANspmm - Canadian Short Term Exposure Level in mg/L or in ppm; CANtmg or CANtppm - Canadian Time Weighted Average in mg/L or in ppm; CAS- Chemical Abstract Service; Chemtrec- Chemical Transportation Emergency Center(US); CHIP- Chemical Hazard Information and Packaging; DSL- Domestic Substances List; EC- Equivalent Concentration; EH40 (UK)- HSE Guidance Note EH40 Occupational Exposure Limits; EPCRA- Emergency Planning and Community Right-To-Know Act; ESL Effects screening levels; HMIS- Hazardous Material Information Service; LC- Lethal Concentration; LD- Lethal Dose; NFPA- National Fire Protection Association; OEL- Occupational Exposure Limits; OSHA- Occupational Safety and Health Administration, US Department of Labor; PEL- Permissible Exposure Limit; SARA (Title III)- Superfund Amendments and Reauthorization Act; SARA 313- Superfund Amendments and Reauthorization Act, Section 313; SCBA- Self Contained Breathing Apparatus; STEL-Short Term Exposure Limit; TCEQ Texas Commission on Environmental Quality; TLV- Threshold Limit Value; TSCA- Toxic Substances Control Act Public Law 94-469; TWA Time Weighted Value; US DOT- US Department of Transportation; WHMIS- Workplace Hazardous Materials Information System.

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