

# SAFETY DATA SHEET

Revision date 25-April-2022

Revision Number 2

## 1. Identification

### Product identifier

**Product Name** TRICHLOROETHYLENE, REAGENT, ACS

### Other means of identification

**Product Code(s)** TCEA**UN/ID no** UN1710**Synonyms** None

### Recommended use of the chemical and restrictions on use

**Recommended use** No information available**Restrictions on use** No information available

### Details of the supplier of the safety data sheet

#### Supplier Address

Lab Alley LLC  
22111 Highway 71 West, Suite 601  
Spicewood, Texas 78669  
Tel.: 512-668-9918

### Emergency telephone number

**Emergency Telephone** Infotrac: 800-535-5053

## 2. Hazard(s) identification

### Classification

Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2A
Germ cell mutagenicity	Category 2
Carcinogenicity	Category 1A
Specific target organ toxicity (single exposure)	Category 3

### Hazards not otherwise classified (HNOC)

Not applicable

### Label elements

**Danger**

#### Hazard statements

Causes skin irritation  
Causes serious eye irritation

Suspected of causing genetic defects  
May cause cancer  
May cause drowsiness or dizziness



**Appearance** Clear

**Physical state** Liquid

**Odor** No information available

#### **Precautionary Statements - Prevention**

Obtain special instructions before use  
Do not handle until all safety precautions have been read and understood  
Wear protective gloves/protective clothing/eye protection/face protection  
Wash face, hands and any exposed skin thoroughly after handling  
Avoid breathing dust/fume/gas/mist/vapors/spray  
Use only outdoors or in a well-ventilated area

#### **Precautionary Statements - Response**

IF exposed or concerned: Get medical advice/attention  
Specific treatment (see .? on this label)  
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: Wash with plenty of water and soap  
If skin irritation occurs: Get medical advice/attention  
Take off contaminated clothing and wash it before reuse  
IF INHALED: Remove person to fresh air and keep comfortable for breathing

#### **Precautionary Statements - Storage**

Store locked up.  
Store in a well-ventilated place. Keep container tightly closed

#### **Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

#### **Other information**

May be harmful if swallowed. Toxic to aquatic life with long lasting effects. Toxic to aquatic life.

### **3. Composition/information on ingredients**

#### **Substance**

Chemical name	CAS No	Weight-%	Trade secret
Trichloroethylene	79-01-6	100	*

\*The exact percentage (concentration) of composition has been withheld as a trade secret.

### **4. First-aid measures**

#### **Description of first aid measures**

##### **General advice**

Show this safety data sheet to the doctor in attendance. IF exposed or concerned: Get medical advice/attention.

<b>Inhalation</b>	Remove to fresh air. IF exposed or concerned: Get medical advice/attention. Get medical attention immediately if symptoms occur.
<b>Eye contact</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists. Do not rub affected area.
<b>Skin contact</b>	Wash off immediately with soap and plenty of water for at least 15 minutes. Get medical attention if irritation develops and persists.
<b>Ingestion</b>	Do NOT induce vomiting. Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Call a physician.
<b>Self-protection of the first aider</b>	Avoid contact with skin, eyes or clothing. Wear personal protective clothing (see section 8).

#### **Most important symptoms and effects, both acute and delayed**

<b>Symptoms</b>	May cause redness and tearing of the eyes. Burning sensation. Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting.
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#### **Indication of any immediate medical attention and special treatment needed**

<b>Note to physicians</b>	Treat symptomatically.
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### **5. Fire-fighting measures**

<b>Suitable Extinguishing Media</b>	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
<b>Large Fire</b>	CAUTION: Use of water spray when fighting fire may be inefficient.
<b>Unsuitable extinguishing media</b>	Do not scatter spilled material with high pressure water streams.
<b>Specific hazards arising from the chemical</b>	No information available.
<b>Explosion data</b>	
<b>Sensitivity to mechanical impact</b>	none.
<b>Sensitivity to static discharge</b>	none.
<b>Special protective equipment for fire-fighters</b>	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

### **6. Accidental release measures**

#### **Personal precautions, protective equipment and emergency procedures**

<b>Personal precautions</b>	Ensure adequate ventilation. Use personal protective equipment as required. Evacuate personnel to safe areas. Avoid contact with skin, eyes or clothing.
<b>Other information</b>	Refer to protective measures listed in Sections 7 and 8.

#### **Methods and material for containment and cleaning up**

<b>Methods for containment</b>	Prevent further leakage or spillage if safe to do so.
<b>Methods for cleaning up</b>	Pick up and transfer to properly labeled containers.

### **7. Handling and storage**

### Precautions for safe handling

#### **Advice on safe handling**

Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Remove contaminated clothing and shoes. Take off contaminated clothing and wash before reuse. Ensure adequate ventilation. Avoid breathing vapors or mists. In case of insufficient ventilation, wear suitable respiratory equipment.

### Conditions for safe storage, including any incompatibilities

#### **Storage Conditions**

Store locked up. Keep containers tightly closed in a dry, cool and well-ventilated place.

## **8. Exposure controls/personal protection**

### Control parameters

#### **Exposure Limits**

Chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Trichloroethylene 79-01-6	No data available	100 ppm TWA 200 ppm Ceiling	-

### Appropriate engineering controls

#### **Engineering controls**

Showers  
Eyewash stations  
Ventilation systems.

### Individual protection measures, such as personal protective equipment

#### **Eye/face protection**

If splashes are likely to occur, wear safety glasses with side-shields.

#### **Hand protection**

Wear suitable gloves. Impervious gloves.

#### **Skin and body protection**

Wear suitable protective clothing. Long sleeved clothing.

#### **Respiratory protection**

No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

#### **General hygiene considerations**

Do not eat, drink or smoke when using this product. Wash hands before breaks and immediately after handling the product. Wear suitable gloves and eye/face protection. Avoid contact with skin, eyes or clothing.

## **9. Physical and chemical properties**

### Information on basic physical and chemical properties

<b>Physical state</b>	Liquid
<b>Appearance</b>	Clear
<b>Color</b>	Colorless
<b>Odor</b>	No information available
<b>Odor threshold</b>	No information available

### Property

<b>pH</b>	no data available
<b>Melting point / freezing point</b>	-87 °C / -124.6 °F
<b>Boiling point / boiling range</b>	86 °C / 186.8 °F
<b>Flash point</b>	no data available
<b>Evaporation rate</b>	no data available
<b>Flammability (solid, gas)</b>	no data available

### Remarks • Method

None known  
None known  
None known  
None known  
None known  
None known

<b>Flammability Limit in Air</b>		None known
<b>Upper flammability or explosive limits</b>	10.5%	
<b>Lower flammability or explosive limits</b>	8%	
<b>Vapor pressure</b>	7.7	None known
<b>Vapor density</b>	4.5	None known
<b>Relative density</b>	1.5	None known
<b>Water solubility</b>	Very slightly soluble in water	None known
<b>Solubility(ies)</b>	Soluble in Oils	None known
	Soluble in Alcohol	
	Soluble in diethyl ether	
	Soluble in Chloroform	
	Soluble in Acetone	
<b>Partition coefficient</b>	No data available	None known
<b>Autoignition temperature</b>	420 °C / 788 °F	None known
<b>Decomposition temperature</b>		None known
<b>Kinematic viscosity</b>	no data available	None known
<b>Dynamic viscosity</b>	No data available	None known
<b><u>Other information</u></b>		
<b>Explosive properties</b>	No information available	
<b>Oxidizing properties</b>	No information available	
<b>Softening point</b>	No information available	
<b>Molecular weight</b>	No information available	
<b>VOC Content (%)</b>	No information available	
<b>Liquid Density</b>	No information available	
<b>Bulk density</b>	No information available	

## 10. Stability and reactivity

<b>Reactivity</b>	No information available.
<b>Chemical stability</b>	Stable under normal conditions.
<b>Possibility of hazardous reactions</b>	None under normal processing.
<b>Conditions to avoid</b>	None known based on information supplied.
<b>Incompatible materials</b>	Strong acids. Strong bases. Strong oxidizing agents.
<b>Hazardous decomposition products</b>	None known based on information supplied.

## 11. Toxicological information

### Information on likely routes of exposure

#### **Product Information**

<b>Inhalation</b>	Specific test data for the substance or mixture is not available. May cause irritation of respiratory tract. May cause drowsiness or dizziness.
<b>Eye contact</b>	Specific test data for the substance or mixture is not available. Irritating to eyes. (based on components). Causes serious eye irritation.
<b>Skin contact</b>	Specific test data for the substance or mixture is not available. Causes skin irritation. (based on components).
<b>Ingestion</b>	Specific test data for the substance or mixture is not available. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. May be harmful if swallowed.

### Symptoms related to the physical, chemical and toxicological characteristics

**Symptoms**

Redness. May cause redness and tearing of the eyes. Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting.

**Acute toxicity****Numerical measures of toxicity**

4920 mg/kg 29000 26 mg/l (4-hr)

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Trichloroethylene 79-01-6	= 4290 mg/kg ( Rat ) = 4920 mg/kg ( Rat )	= 29000 mg/kg ( Rabbit ) > 20 g/kg ( Rabbit )	= 26 mg/L ( Rat ) 4 h

**Delayed and immediate effects as well as chronic effects from short and long-term exposure****Skin corrosion/irritation**

Classification based on data available for ingredients. Irritating to skin.

**Serious eye damage/eye irritation**

Classification based on data available for ingredients. Causes serious eye irritation.

**Respiratory or skin sensitization**

No information available.

**Germ cell mutagenicity**

Contains a known or suspected mutagen. Classification based on data available for ingredients. Suspected of causing genetic defects.

**Carcinogenicity**

Contains a known or suspected carcinogen. Classification based on data available for ingredients. May cause cancer.

The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical name	ACGIH	IARC	NTP	OSHA
Trichloroethylene 79-01-6	-	Group 1 - Carcinogenic to Humans - Monograph 106 [2014] Monograph 63 [1995]	-	-

**Legend****Reproductive toxicity**

No information available.

**STOT - single exposure**

May cause drowsiness or dizziness.

**STOT - repeated exposure**

No information available.

**Target organ effects**

heart, liver, kidney, respiratory system, Eyes, Skin, central nervous system.

**Aspiration hazard**

No information available.

**Other adverse effects**

No information available.

**Interactive effects**

No information available.

**12. Ecological information****Ecotoxicity**

Toxic to aquatic life. Toxic to aquatic life with long lasting effects.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Trichloroethylene 79-01-6	EC50: =175mg/L (96h, Pseudokirchneriella subcapitata) EC50: =450mg/L (96h, Desmodesmus subspicatus)	LC50: 31.4 - 71.8mg/L (96h, Pimephales promelas) LC50: 39 - 54mg/L (96h, Lepomis macrochirus)	-	EC50: =2.2mg/L (48h, Daphnia magna)

**Persistence and degradability**

No information available.

**Bioaccumulation**

Inherently biodegradable.

**Component Information**

Chemical name	Partition coefficient
Trichloroethylene 79-01-6	2.4

Other adverse effects

No information available.

### 13. Disposal considerations

#### Waste treatment methods

Waste from residues/unused products

Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

Contaminated packaging

Do not reuse empty containers.

### 14. Transport information

#### DOT

UN/ID no UN1710  
Proper Shipping Name: Trichloroethylene  
Hazard class 6.1  
Packing group: III  
Special Provisions IB3, N36, T4, TP1  
Marine Pollutant Severe Marine Pollutant  
Description: UN1710, Trichloroethylene, 6.1, III  
Emergency Response Guide Number 160

#### TDG

UN-No: UN1710  
Proper Shipping Name: Trichloroethylene  
Hazard class 6.1  
Packing Group: III  
Description: UN1710, Trichloroethylene, 6.1, III

#### MEX

UN-No UN1710  
Proper Shipping Name Trichloroethylene  
Hazard class 6.1  
Packing Group III  
Description UN1710, Trichloroethylene, 6.1, III

#### ICAO (air)

UN-No: UN1710  
Proper Shipping Name: Trichloroethylene  
Hazard class 6.1  
Packing Group: III  
Description: UN1710, Trichloroethylene, 6.1, III

#### IATA

UN number UN1710  
Proper Shipping Name: Trichloroethylene  
Transport hazard class(es) 6.1  
Packing group III  
Description: UN1710, Trichloroethylene, 6.1, III

#### IMDG

UN number UN1710  
Proper shipping name Trichloroethylene  
Transport hazard class(es) 6.1  
Packing group III  
EmS-No F-A, S-A  
Marine pollutant NP1  
Description UN1710, Trichloroethylene, 6.1, III

**RID**

UN number	UN1710
Proper Shipping Name:	Trichloroethylene
Transport hazard class(es)	6.1
Packing group	III
Classification code	T1
Description:	UN1710, Trichloroethylene, 6.1, III
Labels	6.1

**ADR**

UN number	1710
Proper Shipping Name:	Trichloroethylene
Transport hazard class(es)	6.1
Packing group	III
Classification code	T1
Tunnel restriction code	(E)
Description:	1710, Trichloroethylene, 6.1, III, (E)
Labels	6.1

**ADN**

UN/ID No	UN1710
Proper shipping name	Trichloroethylene
Transport hazard class(es)	6.1
Packing Group	III
Classification code	T1
Special Provisions	802
Description	UN1710, Trichloroethylene, 6.1, III
Hazard label(s)	6.1
Limited quantity (LQ)	5 L
ventilation	VE02
Equipment Requirements	PP, EP, TOX, A

**15. Regulatory information****International Inventories**

<b>TSCA</b>	Complies
<b>DSL/NDSL</b>	Complies
<b>EINECS/ELINCS</b>	Complies
<b>ENCS</b>	This product complies with ENCS:
<b>IECSC</b>	This product complies with China:
<b>KECL</b>	Complies
<b>PICCS</b>	Complies
<b>AICS</b>	All the constituents of this material are listed on the Australian Inventory of Chemical Substances (AICS).

**Legend:**

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory  
**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List  
**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances  
**ENCS** - Japan Existing and New Chemical Substances  
**IECSC** - China Inventory of Existing Chemical Substances  
**KECL** - Korean Existing and Evaluated Chemical Substances  
**PICCS** - Philippines Inventory of Chemicals and Chemical Substances

**US Federal Regulations****SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.



Chemical name	SARA 313 - Threshold Values %
Trichloroethylene - 79-01-6	0.1

**SARA 311/312 Hazard Categories**

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

**CWA (Clean Water Act)**

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

**CERCLA**

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302).

Chemical name	Hazardous Substances RQs	Extremely Hazardous Substances RQs
Trichloroethylene 79-01-6	100 lb final RQ 45.4 kg final RQ	-

**US State Regulations**

**California Proposition 65**

This product contains the following Proposition 65 chemicals:.

Chemical name	California Proposition 65
Trichloroethylene - 79-01-6	developmental toxicity male reproductive toxicity carcinogen

**U.S. State Right-to-Know Regulations**

Chemical name	New Jersey	Massachusetts	Pennsylvania
Trichloroethylene 79-01-6	1890	Present	Environmental hazard

**U.S. EPA Label Information**

EPA Pesticide Registration Number Not applicable

**16. Other information**

**NFPA**

Health hazards 3

Flammability 1

Instability 0

Physical and chemical properties -

**HMIS**

Health hazards 2 \*

Flammability 1

Physical hazards 0

Personal protection X

Chronic Hazard Star Legend

\* = Chronic Health Hazard

**Key or legend to abbreviations and acronyms used in the safety data sheet**

**Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

TWA TWA (time-weighted average)

STEL

STEL (Short Term Exposure Limit)

Ceiling Maximum limit value

**Key literature references and sources for data used to compile the SDS**

Agency for Toxic Substances and Disease Registry (ATSDR)

U.S. Environmental Protection Agency ChemView Database  
European Food Safety Authority (EFSA)  
EPA (Environmental Protection Agency)  
Acute Exposure Guideline Level(s) (AEGl(s))  
U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act  
U.S. Environmental Protection Agency High Production Volume Chemicals  
Food Research Journal  
Hazardous Substance Database  
International Uniform Chemical Information Database (IUCLID)  
Japan GHS Classification  
Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)  
NIOSH (National Institute for Occupational Safety and Health)  
National Library of Medicine's ChemID Plus (NLM CIP)  
National Library of Medicine's PubMed database (NLM PUBMED)  
National Toxicology Program (NTP)  
New Zealand's Chemical Classification and Information Database (CCID)  
Organization for Economic Co-operation and Development Environment, Health, and Safety Publications  
Organization for Economic Co-operation and Development High Production Volume Chemicals Program  
Organization for Economic Co-operation and Development Screening Information Data Set  
World Health Organization

**Revision date** 25-April-2022  
**Revision Note** No information available.

**Disclaimer**

**The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.**

**End of Safety Data Sheet**