



# SAFETY DATA SHEET

## 1. Identification

<b>Product identifier</b>	<b>Vinyl Chloride Monomer</b>
<b>Other means of identification</b>	
<b>Product code</b>	80006211
<b>Synonyms</b>	Chlorinated hydrocarbon * Chloroethene * Chloroethylene * VCM * Vinyl Chloride Monomer
<b>Recommended use</b>	Industrial Application.
<b>Recommended restrictions</b>	Do not use for products which come into contact with foodstuffs. Reason: Toxic if swallowed

## Manufacturer/Importer/Supplier/Distributor information

### Manufacturer

<b>Company name</b>	Westlake Corporation
<b>Address</b>	2801 Post Oak Blvd., Suite 600 Houston, TX 77056 United States
<b>Telephone</b>	+1-713-960-9111
<b>Website</b>	www.westlake.com
<b>E-mail</b>	sdsinfo@westlake.com
<b>Emergency phone number</b>	CHEMTREC 1-800-424-9300 CHEMTREC International +1 703-741-5970

## 2. Hazard(s) identification

<b>Physical hazards</b>	Flammable gases	Category 1
	Gases under pressure	Liquefied gas
<b>Health hazards</b>	Acute toxicity, oral	Category 4
	Germ cell mutagenicity	Category 2
	Carcinogenicity	Category 1A
	Reproductive toxicity	Category 2
	Specific target organ toxicity, repeated exposure	Category 1
<b>OSHA defined hazards</b>	Not classified.	
<b>Label elements</b>		



<b>Signal word</b>	Danger
<b>Hazard statement</b>	Extremely flammable gas. Contains gas under pressure; may explode if heated. Harmful if swallowed. Suspected of causing genetic defects. May cause cancer. Suspected of damaging fertility or the unborn child. Causes damage to organs through prolonged or repeated exposure.
<b>Precautionary statement</b>	
<b>Prevention</b>	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Do not breathe gas. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Wear protective gloves/protective clothing/eye protection/face protection.
<b>Response</b>	If swallowed: Call a poison center/doctor if you feel unwell. Rinse mouth. If exposed or concerned: Get medical advice/attention. Take off contaminated clothing and wash it before reuse. Leaking gas fire: Do not extinguish, unless leak can be stopped safely. Eliminate all ignition sources if safe to do so.
<b>Storage</b>	Store locked up. Protect from sunlight. Store in a well-ventilated place.
<b>Disposal</b>	Dispose of contents/container in accordance with local/regional/national/international regulations.

**Hazard(s) not otherwise classified (HNOC)**

None known.

**Supplemental information**

99.99% of the mixture consists of component(s) of unknown acute dermal toxicity. 99.99% of the mixture consists of component(s) of unknown acute inhalation toxicity.

### 3. Composition/information on ingredients

#### Mixtures

Chemical name	Common name and synonyms	CAS number	%
Vinyl Chloride		75-01-4	99 - 100

### 4. First-aid measures

#### Inhalation

Remove victim to fresh air and keep at rest in a position comfortable for breathing. For breathing difficulties, oxygen may be necessary. Get medical attention immediately. If it suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. Do not use mouth-to-mouth method if victim inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.

#### Skin contact

Wash off with soap and water. Get medical attention if irritation develops and persists.

#### Eye contact

Rinse with water. Get medical attention if irritation develops and persists. If eye tissue is frozen, seek medical attention immediately; if tissue is not frozen immediately and thoroughly flush eyes with large amounts of water for at least 15 minutes. If irritation, pain swelling, lacrimation, or photophobia persist, get medical attention immediately.

#### Ingestion

Not likely, due to the form of the product. Rinse mouth. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Get medical advice/attention if you feel unwell.

#### Most important symptoms/effects, acute and delayed

Abdominal pain. Prolonged exposure may cause chronic effects.

#### Indication of immediate medical attention and special treatment needed

Provide general supportive measures and treat symptomatically. Keep victim warm. Keep victim under observation. Symptoms may be delayed.

#### General information

If exposed or concerned: Get medical advice/attention. In high concentrations may cause asphyxiation. If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance.

### 5. Fire-fighting measures

#### Suitable extinguishing media

Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).

#### Unsuitable extinguishing media

Do not use water jet as an extinguisher, as this will spread the fire.

#### Specific hazards arising from the chemical

Vapors may form explosive mixtures with air. Vapors may travel considerable distance to a source of ignition and flash back. Vapors are heavier than air and may spread along floors. Electrostatic discharges may be generated by flow or agitation resulting in ignition or explosion. Containers may rupture or explode if exposed to heat. Fire may produce irritating, poisonous and/or corrosive fumes. During fire, gases hazardous to health may be formed.

#### Special protective equipment and precautions for firefighters

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

#### Fire fighting equipment/instructions

In case of fire and/or explosion do not breathe fumes. Do not extinguish a leaking gas fire unless leak can be stopped. In case of fire: Stop leak if safe to do so. Do not move cargo or vehicle if cargo has been exposed to heat. If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also consider initial evacuation for 800 meters (1/2 mile) in all directions. ALWAYS stay away from tanks engulfed in flame. Move containers from fire area if you can do so without risk. Do not direct water at source of leak or safety devices as icing may occur. Use water spray to cool unopened containers. Withdraw immediately in case of rising sound from venting safety device or any discoloration of tanks due to fire. For massive fire in cargo area, use unmanned hose holder or monitor nozzles, if possible. If not, withdraw and let fire burn out.

#### Specific methods

Use standard firefighting procedures and consider the hazards of other involved materials. Cool containers exposed to flames with water until well after the fire is out.

#### General fire hazards

Extremely flammable gas. Contents under pressure. Pressurized container may explode when exposed to heat or flame.

#### Hazardous combustion products

Carbon oxides. Hydrogen chloride. Phosgene.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep out of low areas. Many gases are heavier than air and will spread along ground and collect in low or confined areas (sewers, basements, tanks). Wear appropriate protective equipment and clothing during clean-up. Do not breathe gas. Emergency personnel need self-contained breathing equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up	Refer to attached safety data sheets and/or instructions for use. Stop leak if you can do so without risk. If possible, turn leaking containers so that gas escapes rather than liquid. Use water spray to reduce vapors or divert vapor cloud drift. Isolate area until gas has dispersed. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material.  Large Spills: Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.  Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.  Never return spills to original containers for re-use. Put material in suitable, covered, labeled containers. For waste disposal, see section 13 of the SDS.
Environmental precautions	Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. All equipment used when handling the product must be grounded. Close valve after each use and when empty. Protect cylinders from physical damage; do not drag, roll, slide, or drop. When moving cylinders, even for short distances, use a cart (trolley, hand truck, etc.) designed to transport cylinders. Suck back of water into the container must be prevented. Do not allow backfeed into the container. Purge air from system before introducing gas. Use only properly specified equipment which is suitable for this product, its supply pressure and temperature. Contact your gas supplier if in doubt. Do not breathe gas. Do not taste or swallow. Avoid prolonged exposure. When using, do not eat, drink or smoke. Pregnant or breastfeeding women must not handle this product. Should be handled in closed systems, if possible. Provide adequate ventilation. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Observe good industrial hygiene practices. Do not expose cylinders to temperatures higher than 50 C.
Conditions for safe storage, including any incompatibilities	Store locked up. Keep away from heat, sparks and open flame. This material can accumulate static charge which may cause spark and become an ignition source. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Store in a cool, dry place out of direct sunlight. Store in tightly closed container. Store in a well-ventilated place. Stored containers should be periodically checked for general condition and leakage. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Components	Type	Value
Vinyl Chloride (CAS 75-01-4)	STEL	5 ppm
	TWA	1 ppm

US. ACGIH Threshold Limit Values

Components	Type	Value
Vinyl Chloride (CAS 75-01-4)	TWA	1 ppm

Biological limit values

No biological exposure limits noted for the ingredient(s).

## Exposure guidelines

### US - California OELs: Skin designation

Vinyl Chloride (CAS 75-01-4)

Can be absorbed through the skin.

### Appropriate engineering controls

Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Explosion proof exhaust ventilation should be used.

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

#### Eye/face protection

If contact is likely, safety glasses with side shields are recommended.

#### Skin protection

##### Hand protection

Wear appropriate chemical resistant gloves.

##### Other

Wear suitable protective clothing. Use of an impervious apron is recommended.

#### Respiratory protection

When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. The respirators and maximum use concentrations are drawn from NIOSH and/or OSHA. OSHA Standard: Respirator selection should comply with 29 CFR 1910.134, 29 CFR 1910.1017, and the final rule published in the Federal Register on August 24, 2006.

#### Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

### General hygiene considerations

Observe any medical surveillance requirements. When using do not smoke. Keep away from food and drink. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

## 9. Physical and chemical properties

### Appearance

#### Physical state

Gas.

#### Form

Liquefied gas.

#### Color

Colorless

### Odor

Slight. Sweet.

### Odor threshold

Not available.

### pH

7

### Melting point/freezing point

-244.66 °F (-153.7 °C) estimated

### Initial boiling point and boiling range

7.16 °F (-13.8 °C) estimated

### Flash point

-108.4 °F (-78.0 °C) estimated

### Evaporation rate

Not available.

### Flammability (solid, gas)

Flammable gas.

### Upper/lower flammability or explosive limits

#### Explosive limit - lower (%)

3.6 % estimated

#### Explosive limit - upper (%)

33 % estimated

### Vapor pressure

3972.94 hPa estimated

### Vapor density

2.15 Air = 1

### Relative density

Not available.

### Solubility(ies)

#### Solubility (water)

0 - 0.1 %

### Partition coefficient (n-octanol/water)

Not available.

### Auto-ignition temperature

881.6 °F (472 °C) estimated

### Decomposition temperature

Not available.

### Viscosity

Not available.

### Other information

#### Density

0.91 g/cm3 estimated

#### Explosive properties

Not explosive.

<b>Oxidizing properties</b>	Not oxidizing.
<b>Specific gravity</b>	0.91 estimated

10. Stability and reactivity

<b>Reactivity</b>	The product is stable and non-reactive under normal conditions of use, storage and transport. Explosive or violent polymerization can occur when exposed to air, sunlight, or excessive heat if not properly stabilized. Polymerizes exothermically in the presence of light, air, oxygen or catalyst.
<b>Chemical stability</b>	Material is stable under normal conditions.
<b>Possibility of hazardous reactions</b>	Hazardous polymerization does not occur.
<b>Conditions to avoid</b>	Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Contact with incompatible materials.
<b>Incompatible materials</b>	Aluminum. Peroxides. Metals. Strong oxidizing agents.
<b>Hazardous decomposition products</b>	Carbon oxides. Hydrogen chloride. Phosgene.

11. Toxicological information

Information on likely routes of exposure

<b>Inhalation</b>	Prolonged inhalation may be harmful.
<b>Skin contact</b>	No adverse effects due to skin contact are expected.
<b>Eye contact</b>	Direct contact with eyes may cause temporary irritation.
<b>Ingestion</b>	Harmful if swallowed.

<b>Symptoms related to the physical, chemical and toxicological characteristics</b>	Abdominal pain.
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Information on toxicological effects

<b>Acute toxicity</b>	Harmful if swallowed.
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Components	Species	Test Results
Vinyl Chloride (CAS 75-01-4)		
<u>Acute</u>		
<u>Oral</u>		
LD50	Rat	> 500 mg/kg
Skin corrosion/irritation	Prolonged skin contact may cause temporary irritation.	
Serious eye damage/eye irritation	Direct contact with eyes may cause temporary irritation.	
Respiratory or skin sensitization		
Respiratory sensitization	Not a respiratory sensitizer.	
Skin sensitization	This product is not expected to cause skin sensitization.	
Germ cell mutagenicity	Suspected of causing genetic defects.	
Carcinogenicity	May cause cancer.	
IARC Monographs. Overall Evaluation of Carcinogenicity		
Vinyl Chloride (CAS 75-01-4)	1 Carcinogenic to humans.	
OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)		
Vinyl Chloride (CAS 75-01-4)	Cancer	
US. National Toxicology Program (NTP) Report on Carcinogens		
Vinyl Chloride (CAS 75-01-4)	Known To Be Human Carcinogen.	
Reproductive toxicity	Suspected of damaging fertility or the unborn child.	
Specific target organ toxicity - single exposure	Not classified.	
Specific target organ toxicity - repeated exposure	Causes damage to organs through prolonged or repeated exposure.	
Aspiration hazard	Not likely, due to the form of the product.	
Chronic effects	Prolonged inhalation may be harmful. Causes damage to organs through prolonged or repeated exposure. Prolonged exposure may cause chronic effects.	

## 12. Ecological information

<b>Ecotoxicity</b>	The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.
<b>Persistence and degradability</b>	No data is available on the degradability of any ingredients in the mixture.
<b>Bioaccumulative potential</b>	
<b>Partition coefficient n-octanol / water (log Kow)</b>	
Vinyl Chloride	1.62
<b>Mobility in soil</b>	No data available.
<b>Other adverse effects</b>	The product contains volatile organic compounds which have a photochemical ozone creation potential.

## 13. Disposal considerations

<b>Disposal instructions</b>	Dispose of this material and its container to hazardous or special waste collection point. Incinerate the material under controlled conditions in an approved incinerator. Do not incinerate sealed containers. If discarded, this product is considered a RCRA ignitable waste, D001. Dispose of contents/container in accordance with local/regional/national/international regulations.
<b>Local disposal regulations</b>	Dispose in accordance with all applicable regulations.
<b>Hazardous waste code</b>	D001: Waste Flammable material with a flash point <140 F D043: Waste Vinyl chloride The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
<b>Waste from residues / unused products</b>	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
<b>Contaminated packaging</b>	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

## 14. Transport information

<b>DOT</b>	
<b>UN number</b>	UN1086
<b>UN proper shipping name</b>	Vinyl chloride, stabilized (Vinyl Chloride RQ = 1 LBS)
<b>Transport hazard class(es)</b>	
<b>Class</b>	2.1
<b>Subsidiary risk</b>	-
<b>Label(s)</b>	2.1
<b>Packing group</b>	Not assigned.
<b>Environmental hazards</b>	
<b>Marine pollutant</b>	No.
<b>Special precautions for user</b>	Read safety instructions, SDS and emergency procedures before handling.
<b>Special provisions</b>	21, 387, B44, N86, T50
<b>Packaging exceptions</b>	306
<b>Packaging non bulk</b>	304
<b>Packaging bulk</b>	314, 315
<b>IATA</b>	
<b>UN number</b>	UN1086
<b>UN proper shipping name</b>	Vinyl chloride, stabilized
<b>Transport hazard class(es)</b>	
<b>Class</b>	2.1
<b>Subsidiary risk</b>	-
<b>Packing group</b>	Not assigned.
<b>Environmental hazards</b>	No.
<b>ERG Code</b>	10L
<b>Special precautions for user</b>	Read safety instructions, SDS and emergency procedures before handling.
<b>Other information</b>	
<b>Passenger and cargo aircraft</b>	Forbidden
<b>Cargo aircraft only</b>	Allowed with restrictions.
<b>IMDG</b>	
<b>UN number</b>	UN1086

UN proper shipping name	VINYL CHLORIDE, STABILIZED
Transport hazard class(es)	
Class	2.1
Subsidiary risk	-
Packing group	Not assigned.
Environmental hazards	
Marine pollutant	No.
EmS	F-D, S-U
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

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

Not applicable.

DOT



IATA; IMDG



**General information**

Avoid transport on vehicles where the load space is not separated from the driver's compartment. Ensure vehicle driver is aware of the potential hazards of the load and knows what to do in the event of an accident or an emergency. Before transporting product containers: Ensure that containers are firmly secured. Ensure cylinder valve is closed and not leaking. Ensure valve outlet cap nut or plug (where provided) is correctly fitted. Ensure valve protection device (where provided) is correctly fitted. Ensure adequate ventilation. Ensure compliance with applicable regulations.

### 15. Regulatory information

<b>US federal regulations</b>	This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
<b>Toxic Substances Control Act (TSCA)</b>	All components of the mixture on the TSCA 8(b) inventory are designated "active" or exempt.
<b>TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)</b>	Not regulated.
<b>CERCLA Hazardous Substance List (40 CFR 302.4)</b>	
Vinyl Chloride (CAS 75-01-4)	Listed.
<b>SARA 304 Emergency release notification</b>	
Not regulated.	
<b>OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)</b>	
Vinyl Chloride (CAS 75-01-4)	Cancer Central nervous system Liver Blood Flammability

**Superfund Amendments and Reauthorization Act of 1986 (SARA)****SARA 302 Extremely hazardous substance**

Not listed.

**SARA 311/312 Hazardous chemical**

Yes

**Classified hazard categories**

Flammable (gases, aerosols, liquids, or solids)  
Gas under pressure  
Acute toxicity (any route of exposure)  
Germ cell mutagenicity  
Carcinogenicity  
Reproductive toxicity  
Specific target organ toxicity (single or repeated exposure)

**SARA 313 (TRI reporting)**

Chemical name	CAS number	% by wt.
Vinyl Chloride	75-01-4	99 - 100

**Other federal regulations****Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

Vinyl Chloride (CAS 75-01-4)

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)**

Vinyl Chloride (CAS 75-01-4)

**Safe Drinking Water Act (SDWA)**

Contains component(s) regulated under the Safe Drinking Water Act.

**US state regulations****US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))**

Vinyl Chloride (CAS 75-01-4)

**California Proposition 65**

**WARNING:** This product can expose you to Vinyl Chloride, which is known to the State of California to cause cancer. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

**California Proposition 65 - CRT: Listed date/Carcinogenic substance**

Vinyl Chloride (CAS 75-01-4)

Listed: February 27, 1987

**International Inventories**

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Industrial Chemicals (AICIS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
Taiwan	Taiwan Chemical Substance Inventory (TCSI)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

\*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

**16. Other information, including date of preparation or last revision**

Issue date	02-29-2024
Revision date	07-19-2024
Version #	02



**HMIS® ratings**

Health: 3\*  
Flammability: 4  
Physical hazard: 3

**NFPA ratings**

Health: 2  
Flammability: 4  
Instability: 3

**NFPA ratings****Disclaimer**

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**Revision information**

First-aid measures: General information  
Fire-fighting measures: Unsuitable extinguishing media  
Fire-fighting measures: Hazardous combustion products  
Fire-fighting measures: Specific hazards arising from the chemical  
Handling and storage: Precautions for safe handling  
Exposure controls/personal protection: Appropriate engineering controls  
Exposure controls/personal protection: Respiratory protection  
Stability and reactivity: Incompatible materials  
Stability and reactivity: Reactivity