

Vinyl Chloride

C₂H₃Cl**1 Identification of the substance/mixture and of the company/undertaking****Product identifier**

Trade name :	Vinyl chloride
SDS Nr :	SDS_125_CLP
Chemical description :	Vinyl chloride CAS No :000075-01-4 EC No :200-831-0 Index No :602-023-00-7
Chemical formula :	C ₂ H ₃ Cl
Registration-No. :	Registration deadline not expired.
Use :	Industrial and professional. Perform risk assessment prior to use.

Manufacturer / Distributor:**Ehsan International Gases**

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2 Hazards identification**Classification of the substance or mixture****Hazard Class and Category Code****Regulation EC 1272/2008 (CLP)**

- **Physical hazards** : Flammable gases - Category 1 - Danger (H220)
Gases under pressure - Liquefied gas - Warning (H280)
- **Health hazards** : Carcinogenicity - Category 1A - Danger (H350)

Classification EC 67/548 or EC 1999/ : F+; R12

45 Carc. Cat. 1; R45

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Label elements

Labelling Regulation EC 1272/2008 (CLP)

• Hazard pictograms

• Hazard pictograms code : GHS02 - GHS08 - GHS04

• Signal word : Danger

• Hazard statements : H220 : Extremely flammable gas.
H350 : May cause cancer.
H280 : Contains gas under pressure; may explode if heated.

• Precautionary statements

- Prevention : P210 : Keep away from heat/sparks/open flames/hot surfaces. – No smoking.
P202 : Do not handle until all safety precautions have been read and understood.

- Response : P308+P313 : IF exposed or concerned: Get medical advice/attention.
P377 : Leaking gas fire: Do not extinguish, unless leak can be stopped safely.
P381 : Eliminate all ignition sources if safe to do so.

- Storage : P403 : Store in a well-ventilated place.

Labelling EC 67/548 or EC 1999/45

Symbol(s) : T : Toxic; F+ : Extremely flammable

R Phrase(s) : R12 : Extremely flammable.

R45 : May cause cancer.

S Phrase(s) : S45 : In case of accident or if you feel unwell, seek medical advice immediately (show the label when possible).

Other hazards

S53 : Avoid exposure - obtain special instructions before use.

Other hazards : None.

3 Composition/information on ingredients

Substance / Preparation : Substance.

Substance name	Contents	CAS No	EC No	Index No	Registration no	Classification
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Vinyl chloride : 100 % 75-01-4 200-831-0 602-023-00-7 NOTE 2 F+; R12

Carc. Cat. 1; R45

Flam. Gas 1 (H220)
Flam. Gas 1 (H220)
Carc. 1A (H350)
Liq. Gas (H280)

Contains no other components or impurities which will influence the classification of the product. Note 1: Listed in Annex IV / V REACH, exempted from registration. Note 2: Registration deadline not expired. Full text of R-phrases see chapter 16

4 First aid measures

First aid measures

- **Inhalation** : In high concentrations may cause asphyxiation. Symptoms may include loss of mobility/consciousness. Victim may not be aware of asphyxiation. Remove victim to uncontaminated area wearing self contained breathing apparatus. Keep victim warm and rested. Call a doctor. Apply artificial respiration if breathing stopped. In low concentrations may cause narcotic effects. Symptoms may include dizziness, headache, nausea and loss of co-ordination.
- **Skin/eye contact** : Obtain medical assistance.
Immediately flush eyes thoroughly with water for at least 15 minutes.
- **Ingestion** : Ingestion is not considered a potential route of exposure.

5 Fire-fighting measures

- Specific hazards** : Exposure to fire may cause containers to rupture/explode.
- Hazardous combustion products** : If involved in a fire the following toxic and/or corrosive fumes may be produced by thermal decomposition :
Carbon monoxide.
Phosgene.
Hydrogen chloride.
- Extinguishing media**
- **Suitable extinguishing media** : All known extinguishants can be used.
- Specific methods** : If possible, stop flow of product.
Move away from the container and cool with water from a protected position. Do not extinguish a leaking gas flame unless absolutely necessary. Spontaneous/explosive re-ignition may occur. Extinguish any other fire.
- Special protective equipment for fire Fighters** : Use self-contained breathing apparatus and chemically protective clothing.

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6 Accidental release measures

- Personal precautions** : Evacuate area.
Ensure adequate air ventilation.
Eliminate ignition sources.
- Environmental precautions** : Wear self-contained breathing apparatus when entering area unless atmosphere is proved to be safe.
: Try to stop release.
Prevent from entering sewers, basements and workpits, or any place where its accumulation can be dangerous.
- Clean up methods** : Ventilate area.
Keep area evacuated and free from ignition sources until any spilled liquid has

7 Handling and storage

evaporated. (Ground free from frost).

- Handling** : Purge air from system before introducing gas.
Suck back of water into the container must be prevented.
Do not allow backfeed into the container.
Take precautionary measures against static discharge.
Use only properly specified equipment which is suitable for this product, its supply pressure and temperature. Contact your gas supplier if in doubt. Keep away from ignition sources (including static discharges).
Refer to supplier's container handling instructions.
- Storage** : Segregate from oxidant gases and other oxidants in store.
Keep container below 50°C in a well ventilated place.

8 Exposure controls/personal protection

- Personal protection** : Ensure adequate ventilation.
Do not smoke while handling product.
Keep self contained breathing apparatus readily available for emergency use.
- Occupational Exposure Limits** : Vinyl chloride : TRK - Germany [ppm] : 2
Vinyl chloride : TLV[©] -TWA [ppm] : 1

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C₂H₃Cl**9 Physical and chemical properties****10 Stability and reactivity**

Physical state at 20 °C	: Gas.
Colour	: Colourless gas.
Odour	: Sweetish. Poor warning properties at low concentrations.
Molecular weight	: 62.5
Melting point [°C]	: -154
Boiling point [°C]	: -13.7
Critical temperature [°C]	: 156
Vapour pressure [20°C]	: 3.4 bar
Relative density, gas (air=1)	: 2.2
Relative density, liquid (water=1)	: 0.97
Solubility in water [mg/l]	: 3424
Flammability range [vol% in air]	: 3.8 to 31
Auto-ignition temperature [°C]	: 435
Other data	: Gas/vapour heavier than air. May accumulate in confined spaces, particularly at or below ground level.
Hazardous decomposition products	: Thermal decomposition yields toxic products which can be corrosive in the presence of moisture.
Incompatible materials	: Can form explosive mixture with air. May react violently with oxidants. Air, Oxidiser.
Conditions to avoid	: Keep away from heat/sparks/open flames/hot surfaces. – No smoking.
Chemical stability	: May polymerise. Inhibitor usually added.

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11 Toxicological information

Acute toxicity : May have carcinogenic effect.

12 Ecological information

Ecological effects information: Toxic to water organisms.

13 Disposal considerations

Endangering to drinking water.

General : Toxic and corrosive gases formed during combustion should be scrubbed before discharge to atmosphere. Avoid discharge to atmosphere.
Do not discharge into areas where there is a risk of forming an explosive mixture with air. Waste gas should be flared through a suitable burner with flash back arrestor.
Do not discharge into any place where its accumulation could be dangerous. Contact supplier if guidance is required.

14 Transport information

UN number : 1086
• Labelling ADR, IMDG, IATA : 2.1 : flammable gas.

Land transport

ADR/RID
H.I. nr : 239
UN proper shipping name : VINYL CHLORIDE, STABILIZED
Transport hazard class(es) : 2

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- ADR/RID Classification code : 2 F
- Packing Instruction(s) - General : P200
- Tunnel Restriction : B/D Tank carriage: Passage forbidden through tunnels of category B, C, D and E; Other carriage: Passage forbidden through tunnels of category D and E

Sea transport

- IMO-IMDG code
- Proper shipping name : VINYL CHLORIDE, STABILIZED
- Class : 2.1
- IMO Packing group : P200
- Emergency Schedule (EmS) - Fire : F-D
- Emergency Schedule (EmS) - Spillage : S-U
- Instructions - Packing : P200

Air transport

- ICAO/IATA
- Proper shipping name : VINYL CHLORIDE, STABILIZED
- Class : 2.1
- Passenger and Cargo Aircraft :
- Cargo Aircraft only :
 - Packing instruction : 200

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 there is adequate ventilation.

15 Regulatory information

Compliance with applicable regulations.

Restrictions : Shall not be used as aerosol propellant
Restricted to professional users.

Safety, health and environmental regulations/legislation specific for the substance or mixture : Ensure all national/local regulations are observed.

Seveso regulation 96/82/EC : Listed

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C₂H₃Cl**16 Other information**

Ensure operators understand the toxicity hazard.
Contact with liquid may cause cold burns/frostbite.
Ensure operators understand the flammability hazard.
Users of breathing apparatus must be trained.
The hazard of asphyxiation is often overlooked and must be stressed during operator training.

List of full text of R-phrases in : R12 : Extremely flammable. **section**

3. R45 : May cause cancer.

This Safety Data Sheet has been established in accordance with the applicable European Directives and applies to all countries that have translated the Directives in their national laws.

DISCLAIMER OF LIABILITY

: Before using this product in any new process or experiment, a thorough material compatibility and safety study should be carried out.
Details given in this document are believed to be correct at the time of going to press. Whilst proper care has been taken in the preparation of this document, no liability for injury or damage resulting from its use can be accepted.