

 Westfalen	SAFETY DATA SHEET	Page : 1
		Revised edition no : 0
		Date : 21 / 9 / 2011
		Supersedes : 0 / 0 / 0
Ethylene		WAG-055A-DD



F+ : Extremely flammable



2.1 : flammable gas.

Danger



1 Identification of the substance/mixture and of the company/undertaking

Product identifier
Trade name : Ethylene
SDS Nr : WAG-055A-DD
Chemical description : Ethylene
CAS No : 000074-85-1
EC No : 200-815-3
Index No : 601-010-00-3

Chemical formula : C₂H₄
Registration-No. : Registration deadline not expired.
Use : Industrial and professional. Perform risk assessment prior to use.
Company identification : Westfalen AG
Industrieweg 43
48155 MUENSTER Deutschland
Tel : 0049 2 51 6 95 0
Fax: 0049 2 51 6 95 1 94

E-Mail address (competent person): : sdb@westfalen-ag.de
Emergency telephone number : Tel. (+49)5459/80625

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** : Specific Target Organ Toxicity - Single exposure - Narcotic effects - Category 3 - Warning (H336)

Classification EC 67/548 or EC 1999/45 : F+; R12
R67

Label elements

Labelling Regulation EC 1272/2008 (CLP)

Ethylene

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2 Hazards identification (continued)

• Hazard pictograms



• Hazard pictograms code

• Signal word

• Hazard statements

: Danger

: H220 : Extremely flammable gas.

H280 : Contains gas under pressure; may explode if heated.

H336 : May cause drowsiness or dizziness.

• Precautionary statements

- Prevention

: P210 : Keep away from heat/sparks/open flames/hot surfaces. – No smoking.

- Response

: P304+P340+P315 : IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get immediate 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

: P405 : Store locked up.

P403 : Store in a well-ventilated place.

Labelling EC 67/548 or EC 1999/45

Symbol(s)



R Phrase(s)

: F+ : Extremely flammable

: R12 : Extremely flammable.

R67 : Vapours may cause drowsiness and dizziness.

S Phrase(s)

: S9 : Keep container in a well-ventilated place.

S16 : Keep away from sources of ignition - No smoking.

S46 : If swallowed seek medical advice immediately and show this container or label.

S33 : Take precautionary measures against static discharges.

Other hazards

Other hazards

: None.

3 Composition/information on ingredients

Substance / Preparation

: Substance.

Substance name	Contents	CAS No	EC No	Index No	Registration no	Classification
Ethylene	: 100 %	74-85-1	200-815-3	601-010-00-3	NOTE 2	F+; R12 R67 ----- Flam. Gas 1 (H220) STOT RE 3 (H336) 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.

In low concentrations may cause narcotic effects. Symptoms may include

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4 First aid measures (continued)

- dizziness, headache, nausea and loss of co-ordination.
Remove victim to uncontaminated area wearing self contained breathing apparatus. Keep victim warm and rested. Call a doctor. Apply artificial respiration if breathing stopped.
- Skin/eye contact : For liquid spillage - flush 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** : Incomplete combustion may form carbon monoxide.
- 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** : In confined space use self-contained breathing apparatus.

6 Accidental release measures

- Personal precautions** : Wear self-contained breathing apparatus when entering area unless atmosphere is proved to be safe.
Evacuate area.
Ensure adequate air ventilation.
Eliminate ignition sources.
- Environmental precautions** : 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.

7 Handling and storage

- Precautions in handling and storage** : Do not breathe vapour.
- Handling** : Take precautionary measures against static discharge.
Suck back of water into the container must be prevented.
Purge air from system before introducing gas.
Do not allow backfeed into the container.
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.

Ethylene**WAG-055A-DD****9 Physical and chemical properties**

Physical state at 20 °C	: Gas.
Colour	: Colourless gas.
Odour	: Sweetish. Poor warning properties at low concentrations.
Molecular weight [g/mol]	: 28
Melting point [°C]	: -169
Boiling point [°C]	: -103
Critical temperature [°C]	: 9.5
Vapour pressure [20°C]	: Not applicable.
Relative density, gas (air = 1)	: 0.975
Relative density, liquid (water=1)	: 0.57
Solubility in water [vol/vol]	: No reliable data available.
Flammability range [vol% in air]	: 2.4 to 34
Auto-ignition temperature [°C]	: 425

10 Stability and reactivity

Hazardous decomposition products	: None.
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. May decompose violently at high temperature and/or pressure or in the presence of a catalyst.

11 Toxicological information

Toxicity information	: No known toxicological effects from this product.
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12 Ecological information

Ecological effects information	: No known ecological damage caused by this product.
Water-endangerment class Germany	: WGK0 - In general not hazardous for aquatic environment.

13 Disposal considerations

General	: 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.
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14 Transport information

General information	
- UN number	: 1950
- Labelling ADR, IMDG, IATA	



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15 Regulatory information

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

16 Other information

Ensure operators understand the flammability hazard.

The hazard of asphyxiation is often overlooked and must be stressed during operator training.

List of full text of R-phrases in section 3. : R12 : Extremely flammable.
R67 : Vapours may cause drowsiness and dizziness.

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 : 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.
Details given in this document are believed to be correct at the time of going to press. Before using this product in any new process or experiment, a thorough material compatibility and safety study should be carried out.

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