## International Chemical Safety Cards

### ETHANE

ETHANE  
(cylinder)  
C₂H₆  
Molecular mass: 30.1  

CAS # 74-84-0  
RTECS # KH3800000  
ICSC # 0266  
UN # 1035  
EC # 601-002-00-X

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<th>TYPES OF HAZARD/EXPOSURE</th>
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<td>FIRE</td>
<td>Extremely flammable.</td>
<td>NO open flames, NO sparks, and NO smoking.</td>
<td>Shut off supply; if not possible and no risk to surroundings, let the fire burn itself out; in other cases extinguish with water spray.</td>
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<tr>
<td>EXPLOSION</td>
<td>Gas/air mixtures are explosive.</td>
<td>Closed system, ventilation, explosion-proof electrical equipment and lighting. Prevent build-up of electrostatic charges (e.g., by grounding) if in liquid state. Use non-sparking handtools.</td>
<td>In case of fire: keep cylinder cool by spraying with water. Combat fire from a sheltered position.</td>
</tr>
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</table>

**EXPOSURE**

- **INHALATION**  
  - Simple axphyxiant.  
    - Ventilation.  
    - Fresh air, rest. Artificial respiration if indicated. Refer for medical attention.
  - ON CONTACT WITH LIQUID: FROSTBITE.  
    - Cold-insulating gloves.  
    - ON FROSTBITE: rinse with plenty of water, do NOT remove clothes. Refer for medical attention.

- **SKIN**  
  - Protective clothing.
  - First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then take to a doctor.
  - ON CONTACT WITH LIQUID: FROSTBITE.

- **EYES**  
  - Face shield.

- **INGESTION**  
  - SPILLAGE DISPOSAL
  - STORAGE
  - PACKAGING & LABELLING
Evacuate danger area! Consult an expert! Ventilation. NEVER direct water jet on liquid (extra personal protection: chemical suit with self-contained breathing apparatus).

Fireproof. Cool.

F+ symbol
R: 12
S: (2)-9-16-33
UN Hazard Class: 2.1

SEE IMPORTANT INFORMATION ON BACK

ICSC: 0266

Prepared in the context of cooperation between the International Programme on Chemical Safety & the Commission of the European Communities © IPCS CEC 1993

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ETHANE

ICSC: 0266

PHYSICAL STATE; APPEARANCE:
COLOURLESS, COMPRESSED LIQUEFIED GAS, ODORLESS WHEN PURE.

PHYSICAL DANGERS:
The gas mixes well with air, explosive mixtures are easily formed. As a result of flow, agitation, etc., electrostatic charges can be generated.

CHEMICAL DANGERS:

INHALATION RISK:
On loss of containment this liquid evaporates very quickly causing supersaturation of the air with serious risk of suffocation when in confined areas.

EFFECTS OF SHORT-TERM EXPOSURE:
Rapid evaporation of the liquid may cause frostbite.

EFFECTS OF LONG-TERM OR REPEATED EXPOSURE:

OCCUPATIONAL EXPOSURE LIMITS (OELs):
TLV: ppm; mg/m³ simple asphyxiating agent (ACGIH 1995-1996).

Boiling point: -89°C
Melting point: -183°C
Solubility in water, ml/100 ml at 20°C: 4.7
Vapour pressure, kPa at 20°C: 3850
Relative vapour density (air = 1): 1.05

Flash point: flammable gas
Auto-ignition temperature: 472°C
Explosive limits, vol% in air: 3.0-12.5
Octanol/water partition coefficient as log Pow: 1.81

ENVIROMENTAL DATA
NOTES
High concentrations in the air cause a deficiency of oxygen with the risk of unconsciousness or death. Check oxygen content before entering area. Turn leaking cylinder with the leak up to prevent escape of gas in liquid state.

Transport Emergency Card: TEC (R)-868
NFPA Code: H1; F4; R0

ADDITIONAL INFORMATION

ICSC: 0266

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ETHANE

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