

# n-BUTENE

ICSC: 0396

## Date of Peer Review: March 1999

n-Butylene  
1-Butene  
Ethylethylene

CAS # 106-98-9  $C_4H_8$  /  $CH_3CH_2CH=CH_2$   
RTECS # Molecular mass: 56.1  
UN # 1012  
EC Index # 601-012-00-4

TYPES OF HAZARD / EXPOSURE	ACUTE HAZARDS / SYMPTOMS	PREVENTION	FIRST AID / FIRE FIGHTING
<b>FIRE</b>	Extremely flammable.	NO open flames, NO sparks, and NO smoking.	Shut off supply; if not possible and no risk to surroundings, let the fire burn itself out; in other cases extinguish with powder, carbon dioxide.
<b>EXPLOSION</b>	Gas/air mixtures are explosive.	Closed system, ventilation, explosion-proof electrical equipment and lighting.	In case of fire: keep cylinder cool by spraying with water. Combat fire from a sheltered position.
<b>EXPOSURE</b>			
<b>Inhalation</b>	Suffocation.	Ventilation.	Fresh air, rest. Artificial respiration may be needed. Refer for medical attention.
<b>Skin</b>	ON CONTACT WITH LIQUID: FROSTBITE.	Cold-insulating gloves.	ON FROSTBITE: rinse with plenty of water, do NOT remove clothes. Refer for medical attention.
<b>Eyes</b>	ON CONTACT WITH LIQUID: FROSTBITE.	Face shield or eye protection in combination with breathing protection.	First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then take to a doctor.
<b>Ingestion</b>		Do not eat, drink, or smoke during work.	
SPILLAGE DISPOSAL		PACKAGING & LABELLING	
Evacuate danger area! Ventilation. Remove all ignition sources. Personal protection: complete protective clothing including self-contained breathing apparatus.		<b>EU Classification</b> Symbol: <u>F+</u> R: <u>12</u> S: <u>(2-)-9-16-33</u> Note: [C] <b>UN Classification</b> UN Hazard Class: 2.1	
EMERGENCY RESPONSE		STORAGE	
Transport Emergency Card: TEC (R)-20S1012 or 20G2F NFPA Code: H1; F4; R0;		Fireproof. Cool. Ventilation along the floor.	

## IMPORTANT DATA

**PHYSICAL STATE; APPEARANCE:**

ODOURLESS COLOURLESS COMPRESSED LIQUEFIED GAS

**PHYSICAL DANGERS:**

The gas is heavier than air, and may travel along the ground; distant ignition possible.

**CHEMICAL DANGERS:**

The substance may polymerize. Reacts violently with oxygen and oxidants causing fire and explosion hazard.

**OCCUPATIONAL EXPOSURE LIMITS:**

TLV not established. MAK not established.

**ROUTES OF EXPOSURE:**

The substance can be absorbed into the body by inhalation.

**INHALATION RISK:**

On loss of containment this gas can cause suffocation by lowering the oxygen content of the air in confined areas.

**EFFECTS OF SHORT-TERM EXPOSURE:**

Rapid evaporation of the liquid may cause frostbite.

## PHYSICAL PROPERTIES

Boiling point: -6°C  
Melting point: -185°C  
Solubility in water: none  
Vapour pressure, kPa at 21°C: 464  
Relative vapour density (air = 1): 1.93

Flash point: Flammable Gas  
Auto-ignition temperature: 385°C  
Explosive limits, vol% in air: 1.6-10.0

## ENVIRONMENTAL DATA

## NOTES

Health effects of exposure to the substance have not been investigated. Check oxygen content before entering area. Card has been partly updated in October 2005. See section Emergency Response.

## ADDITIONAL INFORMATION

**LEGAL NOTICE**

Neither the CEC nor the IPCS nor any person acting on behalf of the CEC or the IPCS is responsible for the use which might be made of this information

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See Also:

[Toxicological Abbreviations](#)