

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

ProductName : 3-Chloro-1-butene

2. HAZARDS IDENTIFICATION

**Risk advice to man and the environment**  
Highly flammable. May cause sensitization by skin contact.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Formula : C4H7Cl

CAS-No.	EC-No.		Classification	Concentration
<b>3-Chlorobut-1-ene</b> 563-52-0	209-252-8	-	F, Xi, R11 - R43	>= 99,999 %
<b>Sodium carbonate</b> 497-19-8	207-838-8	-	Xi, R36	<= 0,001 %

For the full text of the R-phrases mentioned in this Section, see Section 16.

4. FIRST AID MEASURES

**General advice**  
Consult a physician. Show this safety data sheet to the doctor in attendance.

**If inhaled**  
If breathed in, move person into fresh air. If not breathing give artificial respiration Consult a physician.

**In case of skin contact**  
Wash off with soap and plenty of water. Consult a physician.

**In case of eye contact**  
Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

**If swallowed**  
Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

5. FIRE-FIGHTING MEASURES

**Suitable extinguishing media**  
For small (incipient) fires, use media such as "alcohol" foam, dry chemical, or carbon dioxide. For large fires, apply water from as far as possible. Use very large quantities (flooding) of water applied as a mist or spray; solid streams of water may be ineffective. Cool all affected containers with flooding quantities of water.

**Special protective equipment for fire-fighters**  
Wear self contained breathing apparatus for fire fighting if necessary.

**Further information**  
Use water spray to cool unopened containers.

6. ACCIDENTAL RELEASE MEASURES

**Personal precautions**  
Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

**Environmental precautions**  
Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

**Methods for cleaning up**  
Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

7. HANDLING AND STORAGE

**Handling**  
Avoid inhalation of vapour or mist.  
Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.

**Storage**  
Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Metals

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Personal protective equipment**

**Respiratory protection**  
Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type AXBEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

**Hand protection**  
The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it. Handle with gloves.

**Eye protection**  
Face shield and safety glasses

**Skin and body protection**  
Choose body protection according to the amount and concentration of the dangerous substance at the work place.

**Hygiene measures**  
Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance</b>	
Form	clear, liquid
Colour	colourless
<b>Safety data</b>	
pH	no data available
Melting point	no data available
Boiling point	62 - 65 °C
Flash point	-27 °C - closed cup
Ignition temperature	no data available
Lower explosion limit	no data available
Upper explosion limit	no data available
Vapour pressure	204 hPa at 20 °C
Density	0,9 g/mL at 25 °C
Water solubility	no data available
Partition coefficient: n-octanol/water	log Pow: 1,745

10. STABILITY AND REACTIVITY

**Storage stability**  
Stable under recommended storage conditions.

**Conditions to avoid**  
Heat, flames and sparks.

**Materials to avoid**  
Oxidizing agents, Strong bases

**Hazardous decomposition products**  
Hazardous decomposition products formed under fire conditions. - Carbon oxides, Hydrogen chloride gas

**Contains the following stabiliser(s):**  
Sodium carbonate (<=0,001 %)

11. TOXICOLOGICAL INFORMATION

**Acute toxicity**

**Irritation and corrosion**

**Sensitisation**

**Chronic exposure**

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

**Potential Health Effects**

<b>Inhalation</b>	May be harmful if inhaled. May cause respiratory tract irritation.
<b>Skin</b>	May be harmful if absorbed through skin. May cause skin irritation.
<b>Eyes</b>	May cause eye irritation.

  

<b>Ingestion</b>	May be harmful if swallowed.
<b>Target Organs</b>	Eyes,

12. ECOLOGICAL INFORMATION

**Elimination information (persistence and degradability)**

**Ecotoxicity effects**

**Further information on ecology**

13. DISPOSAL CONSIDERATIONS

**Product**  
Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Observe all federal, state, and local environmental regulations. Contact a licensed professional waste disposal service to dispose of this material.

**Contaminated packaging**  
Dispose of as unused product.

14. TRANSPORT INFORMATION

<b>ADR/RID</b>			
UN-Number: 1993 Class: 3		Packing group: II	
Proper shipping name: FLAMMABLE LIQUID, N.O.S.			
<b>IMDG</b>			
UN-Number: 1993 Class: 3		Packing group: II	EMS-No: F-E, S-E
Proper shipping name: FLAMMABLE LIQUID, N.O.S.			
Marine pollutant: No			
<b>IATA</b>			
UN-Number: 1993 Class: 3		Packing group: II	
Proper shipping name: Flammable liquid n.o.s.			

15. REGULATORY INFORMATION

**Labelling according to EC Directives**

Hazard symbols

F	Highly flammable
Xi	Irritant

R-phrase(s)

R11	Highly flammable.
R43	May cause sensitization by skin contact.

S-phrase(s)

S36/37	Wear suitable protective clothing and gloves.
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Hazardous components which must be listed on the label:

563-52-0	3-Chlorobut-1-ene
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16. OTHER INFORMATION

**Text of R-phrases mentioned in Section 3**

R11	Highly flammable.
R36	Irritating to eyes.
R43	May cause sensitization by skin contact.

**Further information** For R&D use only. Not for drug, household or other uses.



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WARRANTY:  
The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Lookchem shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale.