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

1.1 Product identifiers
   - Product name: Allyl Chloride
   - CAS-No.: 107-05-1

1.2 Relevant identified uses of the substance or mixture and uses advised against
   - Identified uses: Laboratory chemicals, Industrial & for professional use only.

1.3 Details of the supplier of the safety data sheet
   - Company: Central Drug House (P) Ltd
     7/28 Vardaan House
     New Delhi-10002
     INDIA
   - Telephone: +91 11 49404040
   - Email: care@cdhfinechemical.com

1.4 Emergency telephone number
   - Emergency Phone #: +91 11 49404040 (9:00am - 6:00 pm) [Office hours]

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture
   - Classification according to Regulation (EC) No 1272/2008
     Flammable liquids (Category 2), H225
     Acute toxicity, Oral (Category 3), H301
     Acute toxicity, Inhalation (Category 3), H331
     Acute toxicity, Dermal (Category 3), H311
     Skin irritation (Category 2), H315
     Eye irritation (Category 2), H319
     Germ cell mutagenicity (Category 2), H341
     Carcinogenicity (Category 2), H351
     Specific target organ toxicity - single exposure (Category 3), Respiratory system, H335
     Specific target organ toxicity - repeated exposure (Category 1), Nervous system, Liver, Kidney, H372
     Acute aquatic toxicity (Category 1), H400

   For the full text of the H-Statements mentioned in this Section, see Section 16.

2.2 Label elements
   - Labelling according Regulation (EC) No 1272/2008
Signal word

Danger

Hazard statement(s)
H225 Highly flammable liquid and vapour.
H301 + H311 + H331 Toxic if swallowed, in contact with skin or if inhaled
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.
H341 Suspected of causing genetic defects.
H351 Suspected of causing cancer.
H372 Causes damage to organs (Nervous system, Liver, Kidney) through prolonged or repeated exposure.
H400 Very toxic to aquatic life.

Precautionary statement(s)
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P261 Avoid breathing vapours.
P273 Avoid release to the environment.
P280 Wear protective gloves/protective clothing.
P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Supplemental Hazard Statements
none

2.3 Other hazards
This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Lachrymator.

SECTION 3: Composition/information on ingredients

3.1 Substances

Synonyms
3-Chloro-1-propene
Chlorallylene

Formula
C3H5Cl

Molecular weight
76.52 g/mol

CAS-No.
107-05-1

EC-No.
203-457-6

Index-No.
602-029-00-X

Hazardous ingredients according to Regulation (EC) No 1272/2008

Component Classification Concentration
3-Chloro-1-propene Flam. Liq. 2; Acute Tox. 3; <= 100 %
CAS-No. 107-05-1
EC-No. 203-457-6
Index-No. 602-029-00-X
Skin Irrit. 2; Eye Irrit. 2; Muta. 2; Carc. 2; STOT SE 3; STOT RE 1; Aquatic Acute 1; H225, H302, H332, H312, H315, H319, H341, H351, H335, H373, H400
M-Factor - Aquatic Acute: 10

For the full text of the H-Statements mentioned in this Section, see Section 16.
SECTION 4: First aid measures

4.1 Description of 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. Take victim immediately to hospital. 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.

4.2 Most important symptoms and effects, both acute and delayed
The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed
No data available

SECTION 5: Firefighting measures

5.1 Extinguishing media
Suitable extinguishing media
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Special hazards arising from the substance or mixture
Carbon oxides, Hydrogen chloride gas

5.3 Advice for firefighters
Wear self-contained breathing apparatus for firefighting if necessary.

5.4 Further information
Use water spray to cool unopened containers.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
Wear respiratory protection. Avoid breathing vapours, 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. For personal protection see section 8.

6.2 Environmental precautions
Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

6.3 Methods and materials for containment and cleaning up
Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13).

6.4 Reference to other sections
For disposal see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling
Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.
Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge. For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities
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.

Recommended storage temperature 2 - 8 °C
Storage class (TRGS 510): Flammable liquids

7.3 Specific end use(s)
Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

8.2 Exposure controls

Appropriate engineering controls
Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

Personal protective equipment

Eye/face protection
Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection
Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Body Protection
Complete suit protecting against chemicals, Flame retardant antistatic protective clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection
Where risk assessment shows air-purifying respirators are appropriate use (US) or type AXBEK (EN 14387) respirator cartridges as a backup to engine 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).

Control of environmental exposure
Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

a) Appearance
Form: clear, liquid
Colour: light yellow

b) Odour
No data available

c) Odour Threshold
No data available

d) pH
No data available

e) Melting point/freezing point
Melting point/range: -130 °C - lit.

f) Initial boiling point and boiling range
44 - 46 °C - lit.

g) Flash point
-31.99 °C - closed cup
h) Evaporation rate  
   No data available

i) Flammability (solid, gas)  
   No data available

j) Upper/lower flammability or explosive limits  
   Upper explosion limit: 11.2 %(V)  
   Lower explosion limit: 3.2 %(V)

k) Vapour pressure  
   295.207 mmHg at 20 °C  
   1,063.986 mmHg at 55 °C

l) Vapour density  
   2.64 - (Air = 1.0)

m) Relative density  
   0.939 g/cm3 at 25 °C

n) Water solubility  
   No data available

o) Partition coefficient: n-octanol/water  
   No data available

p) Auto-ignition temperature  
   No data available

q) Decomposition temperature  
   No data available

r) Viscosity  
   No data available

s) Explosive properties  
   No data available

t) Oxidizing properties  
   No data available

9.2 Other safety information  
   Relative vapour density  2.64 - (Air = 1.0)

SECTION 10: Stability and reactivity

10.1 Reactivity  
   No data available

10.2 Chemical stability  
   Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions  
   No data available

10.4 Conditions to avoid  
   Heat, flames and sparks.

10.5 Incompatible materials  
   Strong oxidizing agents  
   Boron trifluoride, Sulfuric acid, Nitric acid, Strong oxidizing agents

10.6 Hazardous decomposition products  
   Hazardous decomposition products formed under fire conditions.  
   - Carbon oxides, Hydrogen chloride gas
   Other decomposition products - No data available
   In the event of fire: see section 5

SECTION 11: Toxicological information

11.1 Information on toxicological effects

   Acute toxicity  
   LD50 Oral - Rat - female - 275 mg/kg(3-Chloro-1-propene)  
   (OECD Test Guideline 401)
   LC50 Inhalation - Rat - 2 h - 11 mg/l(3-Chloro-1-propene)
   LD50 Dermal - Rabbit - 398 mg/kg(3-Chloro-1-propene)

   Skin corrosion/irritation  
   Skin - Rabbit(3-Chloro-1-propene)

   Serious eye damage/eye irritation  
   Eyes - Rabbit(3-Chloro-1-propene)
Respiratory or skin sensitisation
No data available (3-Chloro-1-propene)

Germ cell mutagenicity
In vitro tests showed mutagenic effects (3-Chloro-1-propene)

Carcinogenicity
Limited evidence of carcinogenicity in animal studies (3-Chloro-1-propene) 
(3-Chloro-1-propene)
IARC: 3 - Group 3: Not classifiable as to its carcinogenicity to humans (3-Chloro-1-propene)

Reproductive toxicity
No data available (3-Chloro-1-propene)

Specific target organ toxicity - single exposure
May cause respiratory irritation. (3-Chloro-1-propene)

Specific target organ toxicity - repeated exposure
Causes damage to organs through prolonged or repeated exposure. - Nervous system, Liver, Kidney

Aspiration hazard
No data available (3-Chloro-1-propene)

Additional Information
RTECS: UC7350000
spasm, inflammation and edema of the larynx, spasm, inflammation and edema of the bronchi, pneumonitis, pulmonary edema, burning sensation, Cough, wheezing, laryngitis, Shortness of breath, Headache, Nausea, Vomiting (3-Chloro-1-propene)
To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. (3-Chloro-1-propene)

SECTION 12: Ecological information

12.1 Toxicity
Toxicity to daphnia and other aquatic invertebrates
EC50 - Daphnia magna (Water flea) - 250 mg/l - 24 h (3-Chloro-1-propene)

12.2 Persistence and degradability
Biodegradability - aerobic - Exposure time 28 d (3-Chloro-1-propene)
Result: 95% - Readily biodegradable (OECD Test Guideline 301C)

12.3 Bioaccumulative potential
No data available

12.4 Mobility in soil
No data available (3-Chloro-1-propene)

12.5 Results of PBT and vPvB assessment
This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Other adverse effects
Very toxic to aquatic life.

SECTION 13: Disposal considerations

13.1 Waste treatment methods
Product
Burn in a chemical incinerator equipped with an afterburner and scrubber b highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company.
SECTION 14: Transport information

14.1 UN number
ADR/RID: 1100              IMDG: 1100              IATA: 1100

14.2 UN proper shipping name
ADR/RID: ALLYL CHLORIDE
IMDG: ALLYL CHLORIDE
IATA: Allyl chloride
Passenger Aircraft: Not permitted for transport

14.3 Transport hazard class(es)
ADR/RID: 3 (6.1)              IMDG: 3 (6.1)              IATA: 3 (6.1)

14.4 Packaging group
ADR/RID: I                              IMDG: I                              IATA: I

14.5 Environmental hazards
ADR/RID: no                          IMDG Marine pollutant: no              IATA: no

14.6 Special precautions for user
No data available

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

15.2 Chemical safety assessment
For this product a chemical safety assessment was not carried out

SECTION 16: Other information

Full text of H-Statements referred to under sections 2 and 3.

H225      Highly flammable liquid and vapour.
H301      Toxic if swallowed.
H301 + H311 +   Toxic if swallowed, in contact with skin or if inhaled
H331      Harmful if swallowed.
H302      Harmful if inhaled.
H311      Toxic in contact with skin.
H312      Harmful in contact with skin.
H315      Causes skin irritation.
H319      Causes serious eye irritation.
H331      Toxic if inhaled.
H332      Harmful if inhaled.
H335      May cause respiratory irritation.
H341      Suspected of causing genetic defects.
H351      Suspected of causing cancer.
H372      Causes damage to organs (/$/^_ORGAN_REPEAT/$/) through prolonged or repeated exposure.
H373      May cause damage to organs through prolonged or repeated exposure.

Further information
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. Central Drug House (P) Ltd and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See www.cdhfinechemical.com for additional terms and conditions of sale.