**CAS No: 107-18-6 MSDS** 



## **MATERIAL SAFETY DATA SHEET (MSDS)**

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

#### 1.1. Product identifier

Product form : Substance

Trade name : ALLYL ALCOHOL FOR SYNTHESIS

EC index no : 603-015-00-6 EC no : 203-470-7 CAS No : 107-18-6 Product code : B-00107

## 1.2. Relevant identified uses of the substance or mixture and uses advised against

#### 1.2.1. Relevant identified uses

Use of the substance/mixture : Laboratory chemicals, Manufacture of substances

#### 1.2.2. Uses advised against

No additional information available

#### 1.3. Details of the supplier of the safety data sheet

**Bio-Chem Chemicals** 

5455, Nicholson Road Science Market, Ambala Cantt. 133001 Haryana (India)

+91-82952 41953

info@biofinechemical.com - www.biofinechemical.com

#### 1.4. Emergency telephone number

Emergency number : +91 99921 51495 (10.00am - 06.30pm) (Office Hours)

#### **SECTION 2: Hazards identification**

#### 2.1. Classification of the substance or mixture

### Classification according to Regulation (EC) No. 1272/2008 [CLP]

Flammable liquids,
Category 2
Acute toxicity (oral),
Category 3
Acute toxicity (dermal),
Category 3
Acute toxicity (inhal.),
Category 3
Skin corrosion/irritation,
H315

Category 2

Serious eye damage/eye H319

irritation, Category 2

Specific target organ H335

toxicity — Single exposure, Category 3, Respiratory tract irritation

Hazardous to the aquatic H400

environment — Acute

1/11

## Safety Data Sheet

Hazard, Category 1

Full text of classification categories and H statements : see section 16

#### Classification according to Directive 67/548/EEC or 1999/45/EC

T; R23/24/25 Xi; R36/37/38 N; R50 R10

Full text of R-phrases: see section 16

### Adverse physicochemical, human health and environmental effects

No additional information available

#### 2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :







GHS02

GHS06

GHS09

Signal word (CLP) : Danger

Hazard statements (CLP) : 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 H400 - Very toxic to aquatic life

Precautionary statements (CLP) : P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition

sources. No smoking

P261 - Avoid breathing vapours, dust, fume, gas P273 - Avoid release to the environment

P280 - Wear protective gloves, protective clothing, eye protection, face protection

P301+P310 - IF SWALLOWED: Immediately call a 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

#### 2.3. Other hazards

No additional information available

## **SECTION 3: Composition/information on ingredients**

#### 3.1. Substance

Name : ALLYL ALCOHOL FOR SYNTHESIS

CAS No : 107-18-6 EC no : 203-470-7

## Safety Data Sheet

EC index no : 603-015-00-6

Full text of R- and H-phrases: see section 16

#### 3.2. Mixture

Not applicable

#### **SECTION 4: First aid measures**

#### 4.1. Description of first aid measures

First-aid measures after inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing.

Call a POISON CENTER or doctor/physician if you feel unwell.

First-aid measures after skin contact : Wash with plenty of soap and water. Wash contaminated clothing before reuse. Get

medical advice/attention.

First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present

and easy to do. Continue rinsing. Get medical advice/attention.

First-aid measures after ingestion : Rinse mouth. Obtain emergency medical attention.

#### 4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries after inhalation : May cause respiratory irritation.

Symptoms/injuries after skin contact : Repeated exposure to this material can result in absorption through skin causing

significant health hazard. Toxic in contact with skin. Causes skin irritation.

Symptoms/injuries after eye contact : Causes serious eye irritation.

Symptoms/injuries after ingestion : Toxic if swallowed. Swallowing a small quantity of this material will result in serious

health hazard.

## 4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

## **SECTION 5: Firefighting measures**

#### 5.1. Extinguishing media

Suitable extinguishing media : Carbon dioxide. Dry powder. Foam. Water spray.
Unsuitable extinguishing media : Do not use extinguishing media containing water.

#### 5.2. Special hazards arising from the substance or mixture

Fire hazard : Flammable liquid and vapour.

Explosion hazard : May form flammable/explosive vapour-air mixture.

## 5.3. Advice for firefighters

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory

protection.

#### **SECTION 6: Accidental release measures**

#### 6.1. Personal precautions, protective equipment and emergency procedures

General measures : Remove ignition sources. Use special care to avoid static electric charges. No naked

lights. No smoking.

#### 6.1.1. For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel.

#### 6.1.2. For emergency responders

Protective equipment : Use personal protective equipment as required.

Emergency procedures : Ventilate area.

## Safety Data Sheet

#### 6.2. Environmental precautions

Avoid release to the environment.

#### 6.3. Methods and material for containment and cleaning up

Methods for cleaning up : On land, sweep or shovel into suitable containers. Collect spillage.

#### 6.4. Reference to other sections

No additional information available

**SECTION 7: Handling and storage** 

#### 7.1. Precautions for safe handling

Additional hazards when processed

: Handle empty containers with care because residual vapours are flammable.

Precautions for safe handling

Do not breathe vapours. Take precautionary measures against static discharge. Use only non-sparking tools. Keep away from sources of ignition - No smoking. Use only

outdoors or in a well-ventilated area. Avoid contact with skin and eyes.

Hygiene measures

Do not eat, drink or smoke when using this product. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving

work.

#### 7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Proper grounding procedures to avoid static electricity should be followed.

Ground/bond container and receiving equipment.

Storage conditions : Keep container tightly closed. Keep in fireproof place.

Incompatible materials : Heat sources.

### 7.3. Specific end use(s)

No additional information available

## **SECTION 8: Exposure controls/personal protection**

### 8.1. Control parameters

No additional information available

#### 8.2. Exposure controls

Hand protection : Protective gloves

Eye protection : Chemical goggles or safety glasses
Skin and body protection : Wear suitable protective clothing
Respiratory protection : Wear respiratory protection

#### **SECTION 9: Physical and chemical properties**

#### 9.1. Information on basic physical and chemical properties

Physical state : Liquid

Colour : Colorless.

Odour : pungent mustard.

Odour threshold : No data available

pH : No data available

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Relative evaporation rate (butylacetate=1) : No data available

Melting point : -129 °C

Freezing point : No data available

Boiling point : 96 - 98 °C

Flash point : 22 °C

Auto-ignition temperature : 378 °C

Decomposition temperature : No data available

Flammability (solid, gas) : Flammable

Flammable liquid and vapour

Vapour pressure : 31.7 hPa at 20 °C

Relative vapour density at 20 °C : 2.01

Relative density : No data available

Density : 0.854 g/cm<sup>3</sup>

Solubility : Water: Easily soluble in cold water

Log Pow : No data available

Viscosity, kinematic : No data available

Viscosity, dynamic : No data available

Explosive properties : No data available

Oxidising properties : No data available

Explosive limits : 0.025 - 0.18 vol %

#### 9.2. Other information

No additional information available

**SECTION 10: Stability and reactivity** 

#### 10.1. Reactivity

No additional information available

#### 10.2. Chemical stability

Stable under normal conditions.

## 10.3. Possibility of hazardous reactions

No additional information available

### 10.4. Conditions to avoid

Open flame. Heat. Sparks.

#### 10.5. Incompatible materials

No additional information available

## 10.6. Hazardous decomposition products

May release flammable gases.

## Safety Data Sheet

#### **SECTION 11: Toxicological information**

## 11.1. Information on toxicological effects

Acute toxicity : Oral: Toxic if swallowed. Dermal: Toxic in contact with skin. Inhalation: Toxic if

inhaled.

Skin corrosion/irritation : Causes skin irritation.

Serious eye damage/irritation : Causes serious eye irritation.

Respiratory or skin sensitisation : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified

Reproductive toxicity : Not classified

Specific target organ toxicity (single

exposure)

: May cause respiratory irritation.

Specific target organ toxicity (repeated

exposure)

: Not classified

Aspiration hazard : Not classified

Potential adverse human health effects

and symptoms

: Toxic if swallowed. Toxic in contact with skin.

**SECTION 12: Ecological information** 

12.1. Toxicity

Ecology - water : Very toxic to aquatic life.

## 12.2. Persistence and degradability

No additional information available

#### 12.3. Bioaccumulative potential

No additional information available

#### 12.4. Mobility in soil

No additional information available

#### 12.5. Results of PBT and vPvB assessment

No additional information available

## 12.6. Other adverse effects

No additional information available

## Safety Data Sheet

#### **SECTION 13: Disposal considerations**

#### Waste treatment methods

Product/Packaging disposal

: Dispose of contents/container to ...

recommendations

Additional information

: Handle empty containers with care because residual vapours are flammable.

Ecology - waste materials

: Hazardous waste due to toxicity.

#### **SECTION 14: Transport information**

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. **UN** number

UN-No. (ADR) : 1098 UN-No. (IMDG) : 1098 UN-No (IATA) : 1098 : 1098 UN-No.(ADN) UN-No. (RID) : 1098

14.2. **UN** proper shipping name

Proper Shipping Name (ADR) : ALLYL ALCOHOL Proper Shipping Name (IMDG) : ALLYL ALCOHOL Proper Shipping Name (IATA) : ALLYL ALCOHOL Proper Shipping Name (ADN) : ALLYL ALCOHOL Proper Shipping Name (RID) : ALLYL ALCOHOL

Transport document description (ADR) : UN 1098 ALLYL ALCOHOL, 6.1 (3), I, (C/D), ENVIRONMENTALLY HAZARDOUS Transport document description (IMDG) : UN 1098 ALLYL ALCOHOL, 6.1 (3), I, MARINE POLLUTANT/ENVIRONMENTALLY

HAZARDOUS (21°C c.c.)

Transport document description (IATA) : UN 1098 ALLYL ALCOHOL, 6.1, ENVIRONMENTALLY HAZARDOUS : UN 1098 ALLYL ALCOHOL, 6.1 (3), I, ENVIRONMENTALLY HAZARDOUS Transport document description (ADN) Transport document description (RID) : UN 1098 ALLYL ALCOHOL, 6.1 (3), I, ENVIRONMENTALLY HAZARDOUS

#### 14.3. Transport hazard class(es) **ADR**

Transport hazard class(es) (ADR)

: 6.1 (3) Danger labels (ADR) : 6.1, 3



#### **IMDG**

Transport hazard class(es) (IMDG) : 6.1 (3) Danger labels (IMDG) : 6.1.3



#### IATA

Transport hazard class(es) (IATA) : 6.1 (3)

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#### ADN

Transport hazard class(es) (ADN) : 6.1 (3) Danger labels (ADN) : 6.1, 3



#### RID

Transport hazard class(es) (RID) : 6.1 (3) Danger labels (RID) : 6.1.3



#### 14.4. Packing group

Packing group (ADR) : 1 Packing group (IMDG) : 1

Packing group (IATA) : Not applicable

: 1 Packing group (ADN) Packing group (RID) : 1

#### 14.5. **Environmental hazards**

Dangerous for the environment : Yes Marine pollutant : Yes

Other information : No supplementary information available

#### 14.6. Special precautions for user

#### - Overland transport

Classification code (ADR) : TF1 : 354 Special provision (ADR) Limited quantities (ADR) : 0 Excepted quantities (ADR) : E0 Packing instructions (ADR) : P602 : MP8, MP17 Mixed packing provisions (ADR) : T20

Portable tank and bulk container

instructions (ADR)

Portable tank and bulk container special

provisions (ADR)

Tank code (ADR) : L10CH

Tank special provisions (ADR) : TU14, TU15, TE19, TE21

Vehicle for tank carriage : FL Transport category (ADR) : 1

Special provisions for carriage - Loading,

unloading and handling (ADR)

: TP2, TP35

: CV1, CV13, CV28

## Safety Data Sheet

Special provisions for carriage - Operation : S2, S9, S14

(ADR)

Hazard identification number (Kemler No.)

Orange plates

663 1098

Tunnel restriction code (ADR) : C/D EAC code : •2WE APP code : A(fl)

- Transport by sea

Special provision (IMDG) : 354 : 0 Limited quantities (IMDG) Excepted quantities (IMDG) : E0 Packing instructions (IMDG) : P602 Tank instructions (IMDG) : T20

Tank special provisions (IMDG) : TP2, TP13, TP35

EmS-No. (Fire) : F-E : S-D EmS-No. (Spillage) Stowage category (IMDG) : D Stowage and handling (IMDG) : SW2 Flash point (IMDG) : 21°C c.c. MFAG-No : 131

- Air transport

PCA Limited quantities (IATA) : Forbidden PCA limited quantity max net quantity : Forbidden

(IATA)

PCA packing instructions (IATA) : Forbidden : Forbidden PCA max net quantity (IATA) CAO packing instructions (IATA) : Forbidden CAO max net quantity (IATA) : Forbidden

ERG code (IATA) : 6F

- Inland waterway transport

Classification code (ADN) : TF1 Special provisions (ADN) : 354, 802 Limited quantities (ADN) : 0 Excepted quantities (ADN) : E0 Carriage permitted (ADN) : T

Equipment required (ADN) : PP, EP, EX, TOX, A

Ventilation (ADN) : VE01, VE02

Number of blue cones/lights (ADN) : 2

- Rail transport

: TF1 Classification code (RID) : 354 Special provision (RID) Limited quantities (RID) : 0 Excepted quantities (RID) : E0 Packing instructions (RID) : P602 Mixed packing provisions (RID) : MP8, MP17 : T20

Portable tank and bulk container

instructions (RID)

Portable tank and bulk container special

provisions (RID)

: TP2, TP35

## Safety Data Sheet

Tank codes for RID tanks (RID) : L10CH

Special provisions for RID tanks (RID) : TU14, TU15, TU38, TE21, TE22

Transport category (RID) :

Special provisions for carriage - Loading

and unloading (RID)

: CW13, CW28, CW31

Hazard identification number (RID) : 663

### 14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

**SECTION 15: Regulatory information** 

#### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

#### 15.1.1. EU-Regulations

No REACH Annex XVII restrictions

ALLYL ALCOHOL FOR SYNTHESIS is not on the REACH Candidate List ALLYL ALCOHOL FOR SYNTHESIS is not on the REACH Annex XIV List

#### 15.1.2. National regulations

#### Germany

AwSV/VwVwS Annex reference : Water hazard class (WGK) 2, hazardous to water (Classification according to

VwVwS, Annex 2; WGK No 444)

12th Ordinance Implementing the Federal

Immission Control Act - 12.BImSchV

: Is not subject of the 12. BlmSchV (Hazardous Incident Ordinance)

#### Denmark

Class for fire hazard : Class II-1 Store unit : 5 liter

Classification remarks : R10 <H225;H301+H311+H331;H315;H319;H335;H400>; Emergency management

guidelines for the storage of flammable liquids must be followed

Recommendations Danish Regulation : Young people below the age of 18 years are not allowed to use the product

Pregnant/breastfeeding women working with the product must not be in direct

contact with the product

#### 15.2. Chemical safety assessment

No additional information available

#### **SECTION 16: Other information**

# Safety Data Sheet

Acute Tox. 3 (Dermal)	Acute toxicity (dermal), Category 3
Acute Tox. 3 (Inhalation)	Acute toxicity (inhal.), Category 3
Acute Tox. 3 (Oral)	Acute toxicity (oral), Category 3
Aquatic Acute 1	Hazardous to the aquatic environment — Acute Hazard, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Flam. Liq. 2	Flammable liquids, Category 2
Skin Irrit. 2	Skin corrosion/irritation, Category 2
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation
H225	Highly flammable liquid and vapour
H301	Toxic if swallowed
H311	Toxic in contact with skin
H315	Causes skin irritation
H319	Causes serious eye irritation
H331	Toxic if inhaled
H335	May cause respiratory irritation
H400	Very toxic to aquatic life
R10	Flammable
R23/24/25	Toxic by inhalation, in contact with skin and if swallowed
R36/37/38	Irritating to eyes, respiratory system and skin
R50	Very toxic to aquatic organisms
N	Dangerous for the environment
Т	Toxic
Xi	Irritant

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product