TERT-AMYL ALCOHOL FOR SYNTHESIS **MSDS**

CAS-No.: 75-85-4 MSDS



MATERIAL SAFETY DATA SHEET (MSDS)

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

Product identifier

: Substance Product form

EC Index-No. : 603-007-00-2 EC-No. : 200-908-9 CAS-No. : 75-85-4 Product code : 01376

Chemical structure

Synonyms : 2-Methyl-2-butanol

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

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

SPAN LAB UNIT NO. 14,SKY INDUSTRIAL ESTATE, WALIV, VASAI (E) 401208 Mumbai - INDIA

PH: +91 9820509929

info@spanlab.in www.spanlab.in

SECTION 2: Hazards identification

Classification of the substance or mixture 2.1.

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

Flammable liquids, H225

Category 2

Acute toxicity (inhal.),

H332

Category 4

Skin corrosion/irritation,

H315

Category 2

Specific target organ

H335

toxicity — Single exposure, Category 3, Respiratory tract irritation

25/04/2016 1/11 www.spanlab.in

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Full text of hazard classes and H-statements : see section 16

Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]

F; R11 Xn; R20 Xi; R37/38

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

GHS07

Signal word (CLP) : Danger

Hazard statements (CLP) : H225 - Highly flammable liquid and vapour.

H315 - Causes skin irritation. H332 - Harmful if inhaled.

H335 - May cause respiratory irritation.

Precautionary statements (CLP) : P210 - Keep away from heat, hot surfaces. No smoking.

P261 - Avoid breathing vapours, dust, fume, gas.

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances

Name : tert-AMYL ALCOHOL FOR SYNTHESIS

CAS-No. : 75-85-4 EC-No. : 200-908-9 EC Index-No. : 603-007-00-2

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

3.2. Mixtures

Not applicable

www.spanlab.in 25/04/2016 2/11

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Call a POISON

CENTER/doctor if you feel unwell.

First-aid measures after skin contact : Wash with plenty of 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. Get medical advice/attention.

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

Symptoms/effects after inhalation : May cause respiratory irritation.

Symptoms/effects after skin contact : Causes skin irritation.

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 a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Highly 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 open

flames. 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.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

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

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.

www.spanlab.in 25/04/2016 3/11

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Precautions for safe handling : Avoid contact with skin and eyes. Use only non-sparking tools. Keep away from

sources of ignition - No smoking. Use only outdoors or in a well-ventilated area. Do

not breathe vapours.

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 in fireproof place. Keep container tightly closed.

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 : [In case of inadequate ventilation] wear respiratory protection.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid

Colour : Clear Colorless.

Odour : camphor odor.

Odour threshold : No data available

pH : 6 at 118 g/l at 20 °C

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

Melting point : -12 °C

Freezing point : No data available

Boiling point : 102 °C

Flash point : 20 °C

Auto-ignition temperature : 437 °C

Decomposition temperature : No data available

www.spanlab.in 25/04/2016 4/11

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Flammability (solid, gas) : Flammable

Highly flammable liquid and vapour.

Vapour pressure : 16 hPa

Relative vapour density at 20 °C : 3

Relative density : No data available

Density : 0.81 g/cm³ Relative gas density : 3.04

Solubility : No data available

Log Pow : 0.77

Viscosity, kinematic : No data available
Viscosity, dynamic : No data available
Explosive properties : No data available
Oxidising properties : No data available

Explosive limits : 0.012 - 0.09 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.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Inhalation: Harmful if inhaled.

Skin corrosion/irritation : Causes skin irritation.

pH: 6 at 118 g/l at 20 °C

Serious eye damage/irritation : Not classified

pH: 6 at 118 g/l at 20 °C

www.spanlab.in 25/04/2016 5/11

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

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

Reproductive toxicity : Not classified

STOT-single exposure : May cause respiratory irritation.

: Not classified STOT-repeated exposure

Aspiration hazard : Not classified

SECTION 12: Ecological information

12.1. **Toxicity**

No additional information available

Persistence and degradability

No additional information available

Bioaccumulative potential 12.3.

tert-AMYL ALCOHOL FOR SYNTHESIS (7	75-85-4)
Log Pow	0.77

Mobility in soil

No additional information available

Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

Waste treatment methods

Product/Packaging disposal

Additional information

recommendations

: Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

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

SECTION 14: Transport information

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

www.spanlab.in 25/04/2016 6/11

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

14.1. UN number

UN-No. (ADR) : 1105 UN-No. (IMDG) : 1105 UN-No. (IATA) : 1105 UN-No. (ADN) : 1105 UN-No. (RID) : 1105

14.2. UN proper shipping name

Proper Shipping Name (ADR) : PENTANOLS
Proper Shipping Name (IMDG) : PENTANOLS
Proper Shipping Name (IATA) : Pentanols
Proper Shipping Name (ADN) : PENTANOLS
Proper Shipping Name (RID) : PENTANOLS

Transport document description (ADR) : UN 1105 PENTANOLS, 3, II, (D/E)
Transport document description (IMDG) : UN 1105 PENTANOLS, 3, II

Transport document description (IATA) : UN 1105 PENTANOLS, 3, II

Transport document description (ADN) : UN 1105 PENTANOLS, 3, II

Transport document description (RID) : UN 1105 PENTANOLS, 3, II

14.3. Transport hazard class(es)

ADR

Transport hazard class(es) (ADR) : 3
Danger labels (ADR) : 3



IMDG

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



IATA

Transport hazard class(es) (IATA) : 3
Hazard labels (IATA) : 3



ADN

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

www.spanlab.in 25/04/2016 7/11

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

3

RID

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



14.4. Packing group

Packing group (ADR) : II
Packing group (IMDG) : II
Packing group (IATA) : II
Packing group (ADN) : II
Packing group (RID) : II

14.5. Environmental hazards

Dangerous for the environment : No Marine pollutant : No

Other information : No supplementary information available

14.6. Special precautions for user

- Overland transport

Classification code (ADR) : F1
Limited quantities (ADR) : 11
Excepted quantities (ADR) : E2

Packing instructions (ADR) : P001, IBC02, R001

Mixed packing provisions (ADR) : MP19
Portable tank and bulk container : T4

instructions (ADR)

Portable tank and bulk container special

provisions (ADR)

: TP1, TP29

Tank code (ADR) : LGBF
Vehicle for tank carriage : FL
Transport category (ADR) : 2
Special provisions for carriage - Operation : S2, S20

(ADR)

Hazard identification number (Kemler No.) : 33

Orange plates :

33 1105

Tunnel restriction code (ADR) : D/E EAC code : •3YE

- Transport by sea

Limited quantities (IMDG) : 1 L Excepted quantities (IMDG) : E2

www.spanlab.in 25/04/2016 8/11

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Packing instructions (IMDG) : P001
IBC packing instructions (IMDG) : IBC02
Tank instructions (IMDG) : T4

Tank special provisions (IMDG) : TP1, TP29

EmS-No. (Fire) : F-E
EmS-No. (Spillage) : S-D
Stowage category (IMDG) : B

Properties and observations (IMDG) : Colourless liquids with a strong odour. Immiscible with water. tertiary-AMYL

ALCOHOL: flashpoint 19°C to 21°C c.c.

MFAG-No : 129

- Air transport

PCA Excepted quantities (IATA) : E2
PCA Limited quantities (IATA) : Y341
PCA limited quantity max net quantity : 1L

(IATA)

PCA packing instructions (IATA) : 353
PCA max net quantity (IATA) : 5L
CAO packing instructions (IATA) : 364
CAO max net quantity (IATA) : 60L
Special provisions (IATA) : A3
ERG code (IATA) : 3L

- Inland waterway transport

Classification code (ADN) : F1
Limited quantities (ADN) : 1 L
Excepted quantities (ADN) : E2
Equipment required (ADN) : PP, EX, A
Ventilation (ADN) : VE01
Number of blue cones/lights (ADN) : 1

- Rail transport

Classification code (RID) : F1
Limited quantities (RID) : 1L
Excepted quantities (RID) : E2

Packing instructions (RID) : P001, IBC02, R001

Mixed packing provisions (RID) : MP19
Portable tank and bulk container : T4

instructions (RID)

Portable tank and bulk container special

provisions (RID)

Tank codes for RID tanks (RID): LGBFTransport category (RID): 2Colis express (express parcels) (RID): CE7Hazard identification number (RID): 33

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

: TP1, TP29

15.1.1. EU-Regulations

No REACH Annex XVII restrictions

tert-AMYL ALCOHOL FOR SYNTHESIS is not on the REACH Candidate List

www.spanlab.in 25/04/2016 9/11

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

tert-AMYL ALCOHOL FOR SYNTHESIS is not on the REACH Annex XIV List

15.1.2. National regulations

Germany

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

Immission Control Act - 12.BImSchV

Netherlands

SZW-lijst van kankerverwekkende stoffen : The substance is not listed : The substance is not listed SZW-lijst van mutagene stoffen NIET-limitatieve lijst van voor de : The substance is not listed

voortplanting giftige stoffen - Borstvoeding

NIET-limitatieve lijst van voor de voortplanting giftige stoffen -

Vruchtbaarheid

: The substance is not listed

NIET-limitatieve lijst van voor de

voortplanting giftige stoffen - Ontwikkeling

: The substance is not listed

Denmark

Class for fire hazard : Class I-1 Store unit : 1 liter

Classification remarks : F <Flam. Liq. 2>; 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

15.2. **Chemical safety assessment**

No additional information available

SECTION 16: Other information

Full text of R-, H- and EUH-statements:

Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), Category 4
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.
H315	Causes skin irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
R11	Highly flammable

www.spanlab.in 25/04/2016 10/11

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

R20	Harmful by inhalation
R37/38	Irritating to respiratory system and skin
F	Highly flammable
Xi	Irritant
Xn	Harmful

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

www.spanlab.in 25/04/2016 11/11