

MATERIAL SAFETY DATA SHEET (SDS/MSDS)

ACETALDEHYDE SOLUTION 20-30% FOR SYNTHESIS

CAS-No.: 75-07-0

Product Code: 00006

Molecular Formula: C_2H_4O

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier**

| | | |
|--------------|---|--|
| Product form | : | Mixture |
| Trade name | : | Acetaldehyde Solution 20-30% For Synthesis |
| EC no | : | 200-836-8 |
| CAS No | : | 75-07-0 |
| Synonyms | : | Ethanal |

1.2. Relevant identified uses of the substance or mixture and uses advised against**1.2.1. Relevant identified uses**

Industrial/Professional use spec : Industrial For professional use only

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Company : Chemnovo Synthesis Pvt Ltd
N-226 Near Kumbhavali Naka
Tarapur MIDC, Boisar-401 506
Palghar, Maharashtra
Telephone : +91 7400096089
Email: export@chemnovo.in

1.4. Emergency telephone number

Emergency number : + 91 7400096089 (9:00am - 6:00 pm)

SECTION 2: Hazards identification**2.1. Classification of the substance or mixture**

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

Flammable liquids, H224

Category 1

Serious eye damage/eye H319

irritation, Category 2

Carcinogenicity, Category H351

2

Specific target organ H335

toxicity – Single

exposure, Category 3,

Respiratory tract irritation

Full text of H statements : see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

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2.2. Label elements

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

Hazard pictograms (CLP)

:



GHS02

GHS07

GHS08

Signal word (CLP)

:

Danger

Hazard statements (CLP)

:

H224 - Extremely flammable liquid and vapour.

H319 - Causes serious eye irritation.

H335 - May cause respiratory irritation.

H351 - Suspected of causing cancer.

Precautionary statements (CLP)

:

P261 - Avoid breathing vapours, dust, fume, gas

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

P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing.

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

| Name | Product identifier | % | Classification according to Regulation (EC) No. 1272/2008 [CLP] |
|-------------------------------------|---|---------|--|
| Acetaldehyde Solution For Synthesis | (CAS-No.) 75-07-0 (EC-No.) 200-836-8 | 25 - 50 | Flam. Liq. 1, H224 Eye Irrit. 2, H319 Carc. 2, H351 STOT SE 3, H335 |
| WATER AR | (CAS-No.) 7732-18-5 (EC-No.) 231-791-2 | 70 - 80 | Not classified |

Full text of H-statements: see section 16

SECTION 4: First aid measures**4.1. Description of first aid measures**

| | | |
|---------------------------------------|---|--|
| First-aid measures general | : | Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible). |
| 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 | : | Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. |
| 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. Do NOT induce vomiting. Obtain emergency medical attention. |

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

| | | |
|------------------------------------|---|-----------------------------------|
| Symptoms/effects after inhalation | : | May cause respiratory irritation. |
| Symptoms/effects after eye contact | : | Causes serious eye irritation. |
| Chronic symptoms | : | Suspected carcinogen. |

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 | : | Foam. Dry powder. Carbon dioxide. Water spray. Sand. |
| Unsuitable extinguishing media | : | Do not use a heavy water stream. |

5.2. Special hazards arising from the substance or mixture

| | | |
|------------------|---|--|
| Fire hazard | : | Extremely flammable liquid and vapour. |
| Explosion hazard | : | Heating may cause a fire or explosion. |

5.3. Advice for firefighters

| | | |
|--------------------------------|---|---|
| Firefighting instructions | : | Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire fighting water from entering the environment. |
| 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 | : | Equip cleanup crew with proper protection. |
| Emergency procedures | : | Ventilate area. |

6.2. Environmental precautions

Avoid release to the environment. Do not allow water (or moist air) contact with this material.

6.3. Methods and material for containment and cleaning up

| | | |
|-------------------------|---|--|
| Methods for cleaning up | : | Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Store away from other materials. |
|-------------------------|---|--|

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

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 | : | Avoid contact with skin and eyes. Provide good ventilation in process area to prevent formation of vapour. Keep away from sources of ignition – No smoking. Do not breathe vapours. Use only outdoors or in a well-ventilated area. |
| 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

| | | |
|------------------------|---|---|
| Storage conditions | : | Keep in fireproof place. Keep container tightly closed. |
| Incompatible products | : | Strong bases. Strong acids. |
| Incompatible materials | : | Sources of ignition. Direct sunlight. |

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

| | | |
|-------------------------------|---|--|
| Personal protective equipment | : | Avoid all unnecessary exposure. |
| Hand protection | : | protective gloves |
| Eye protection | : | Chemical goggles or safety glasses |
| Skin and body protection | : | Wear suitable protective clothing |
| Respiratory protection | : | Wear appropriate mask |
| Other information | : | Do not eat, drink or smoke during use. |

SECTION 9: Physical and chemical properties**9.1. Information on basic physical and chemical properties**

| | | |
|---|---|--|
| Physical state | : | Liquid |
| Molecular mass | : | 44.05 g/mol |
| Colour | : | Clear Colorless. |
| Odour | : | Pungent. |
| Odour threshold | : | No data available |
| pH: | : | No data available |
| Relative evaporation rate (butylacetate=1) | : | No data available |
| Melting point | : | No data available |
| Freezing point | : | No data available |
| Boiling point | : | 62 °C |
| Flash point | : | < -17 °C |
| Auto-ignition temperature | : | No data available |
| Decomposition temperature | : | No data available |
| Flammability (solid, gas) | : | Highly flammable liquid and vapour. Flammable solid. |
| Vapour pressure | : | No data available |
| Relative vapour density at 20 °C | : | No data available |
| Relative density | : | No data available |
| Solubility | : | Water: Complete |
| 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 | : | 0.04 - 0.6 vol % |

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity**10.1. Reactivity**

Extremely flammable liquid and vapour.

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

Strong acids. Strong bases.

10.6. Hazardous decomposition products

No additional information available

SECTION 11: Toxicological information**11.1. Information on toxicological effects**

| | | |
|---|---|--|
| Acute toxicity | : | Not classified |
| Skin corrosion/irritation | : | Not classified |
| Additional information | : | Based on available data, the classification criteria are not met |
| Serious eye damage/irritation | : | Causes serious eye irritation. |
| Respiratory or skin sensitisation | : | Not classified |
| Additional information | : | Based on available data, the classification criteria are not met |
| Germ cell mutagenicity | : | Not classified |
| | | Based on available data, the classification criteria are not met |
| Carcinogenicity | : | Suspected of causing cancer. |
| Additional information | : | Based on available data, the classification criteria are not met |
| Reproductive toxicity | : | Not classified |
| Additional information | : | Based on available data, the classification criteria are not met |
| STOT-single exposure | : | May cause respiratory irritation. |
| STOT-repeated exposure | : | Not classified |
| Additional information | : | Based on available data, the classification criteria are not met |
| Aspiration hazard | : | Not classified |
| Additional information | : | Based on available data, the classification criteria are not met |
| Potential adverse human health effects and symptoms | | Based on available data, the classification criteria are not met |

SECTION 12: Ecological information**12.1. Toxicity**

No additional information available

12.2. Persistence and degradability

| ACETALDEHYDE SOLUTION FOR SYNTHESIS (75-07-0) | |
|--|------------------|
| Persistence and degradability | Not established. |

12.3. Bioaccumulative potential

| ACETALDEHYDE SOLUTION FOR SYNTHESIS (75-07-0) | |
|--|------------------|
| Bioaccumulative potential | Not established. |

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

| | | |
|------------------------|---|-----------------------------------|
| Additional information | : | Avoid release to the environment. |
|------------------------|---|-----------------------------------|

SECTION 13: Disposal considerations**13.1. Waste treatment methods**

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| | | |
|--|---|---|
| Product/Packaging disposal recommendations | : | Dispose in a safe manner in accordance with local/national regulations. |
| Additional information | : | Handle empty containers with care because residual vapours are flammable. |
| Ecology – waste materials | : | Avoid release to the environment. |

SECTION 14: Transport information

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

14.1. UN number

| | | |
|---------------|---|------|
| UN-No. (ADR) | : | 1089 |
| UN-No. (IMDG) | : | 1089 |
| UN-No.(IATA) | : | 1089 |
| UN-No.(AND) | : | 1089 |
| UN-No. (RID) | : | 1089 |

14.2. UN proper shipping name

| | | |
|---------------------------------------|---|---|
| Proper Shipping Name (ADR) | : | Acetaldehyde |
| Proper Shipping Name (IMDG) | : | Acetaldehyde |
| Proper Shipping Name (IATA) | : | Acetaldehyde |
| Proper Shipping Name (ADN) | : | Acetaldehyde |
| Proper Shipping Name (RID) | : | Acetaldehyde |
| Transport document description (ADR) | : | UN 1089 Acetaldehyde, 3, I, (D/E) |
| Transport document description (IMDG) | : | UN 1089 Acetaldehyde, 3, I (-27°C c.c.) |
| Transport document description (IATA) | : | UN 1089 Acetaldehyde, 3, I |
| Transport document description (ADN) | : | UN 1089 Acetaldehyde, 3, I |
| Transport document description (RID) | : | UN 1089 Acetaldehyde, 3, I |

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 |

MATERIAL SAFETY DATA SHEET (SDS/MSDS)**ACETALDEHYDE SOLUTION 20-30% FOR SYNTHESIS****CAS-No.: 75-07-0****IATA**

Transport hazard class(es) (IATA) : 3

Hazard labels (IATA) : 3

**AND**

Transport hazard class(es) (ADN) : 3

Danger labels (AND) : 3

**RID**

Transport hazard class(es) (RID) : 3

Danger labels (RID) : 3

**14.4. Packing group**

Packing group (ADR) : I

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| | | |
|----------------------|---|---|
| Packing group (IMDG) | : | I |
| Packing group (IATA) | : | I |
| Packing group (AND) | : | I |
| Packing group (RID) | : | I |

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) | : | 0 |
| Excepted quantities (ADR) | : | E0 |
| Packing instructions (ADR) | : | P001 |
| Mixed packing provisions (ADR) | : | MP7, Mp17 |
| Portable tank and bulk container instructions (ADR) | : | T11 |
| Portable tank and bulk container special provisions (ADR) | : | TP2, Tp7 |
| Tank code (ADR) | : | L4BN |
| Tank special provisions (ADR) | : | Tu8 |
| Vehicle for tank carriage | : | FL |
| Transport category (ADR) | : | 1 |
| Special provisions for carriage – Operation (ADR) | : | S2, S20 |
| Hazard identification number (Kemler No.) | : | 33 |
| Orange plates | : | |

33**1089**

| | | |
|--------------------------------|---|------------|
| Tunnel restriction code (ADR) | : | D/E |
| EAC code | : | •2YE |
| – Transport by sea | | |
| Limited quantities (IMDG) | : | 0 |
| Excepted quantities (IMDG) | : | E0 |
| Packing instructions (IMDG) | : | P001 |
| Tank instructions (IMDG) | : | T11 |
| Tank special provisions (IMDG) | : | TP2, Tp7 |
| EmS-No. (Fire) | : | F-E |
| EmS-No. (Spillage) | : | S-D |
| Stowage category (IMDG) | : | E |
| Flash point (IMDG) | : | -27°C c.c. |

| | | |
|---|---|-----------|
| MFAG-No | : | 129 |
| - Air transport | | |
| PCA Excepted quantities (IATA) | : | E0 |
| PCA Limited quantities (IATA) | : | Forbidden |
| PCA limited quantity max net quantity (IATA) | : | Forbidden |
| PCA packing instructions (IATA) | : | Forbidden |
| PCA max net quantity (IATA) | : | Forbidden |
| CAO packing instructions (IATA) | : | 361 |
| CAO max net quantity (IATA) | : | 30L |
| Special provisions (IATA) | : | A1 |
| ERG code (IATA) | : | 3H |
| - Inland waterway transport | | |
| Classification code (ADN) | : | F1 |
| Limited quantities (AND) | : | 0 |
| Excepted quantities (ADN) | : | E0 |
| Carriage permitted (AND) | : | T |
| 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) | : | 0 |
| Excepted quantities (RID) | : | E0 |
| Packing instructions (RID) | : | P001 |
| Mixed packing provisions (RID) | : | MP7, Mp17 |
| Portable tank and bulk container instructions (RID) | : | T11 |
| Portable tank and bulk container special provisions (RID) | : | TP2, Tp7 |
| Tank codes for RID tanks (RID) | : | L4BN |
| Special provisions for RID tanks (RID) | : | Tu8 |
| Transport category (RID) | : | 1 |
| Hazard 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****15.1.1. EU-Regulations**

No REACH Annex XVII restrictions

Contains no REACH substances with Annex XVII restrictions

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Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

15.1.2. National regulations

Germany

Reference to AwSV

Water hazard class (WGK) 1, Slightly hazardous to water
(Classification according to AwSV, Annex 1)

12th Ordinance Implementing the Federal
Immission Control Act - 12.BImSchV
(Ordinance)

Is not subject of the 12. BImSchV (Hazardous Incident)

Netherlands

SZW-lijst van kankerverwekkende stoffen :

None of the components are listed

SZW-lijst van mutagene stoffen :

None of the components are listed

NIET-limitatieve lijst van voor de

voortplanting giftige stoffen - Borstvoeding :

None of the components are listed

NIET-limitatieve lijst van voor de

voortplanting giftige stoffen -

Vruchtbaarheid :

None of the components are listed

NIET-limitatieve lijst van voor de

voortplanting giftige stoffen - Ontwikkeling

None of the components are listed

Denmark

Classification remarks :

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
The requirements from the Danish Working Environment
Authorities regarding work with carcinogens must be followed
during use and disposal

15.2. Chemical safety assessment

No additional information available

SECTION 16: Other information

Data sources :

REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT
AND OF THE COUNCIL of 16 December 2008 on classification,
labelling and packaging of substances and mixtures, amending
and repealing Directives 67/548/EEC and 1999/45/EC, and
amending Regulation (EC) No 1907/2006.

Other information :

None.

Full text of H- and EUH-statements

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| | |
|--------------|--|
| Carc. 2 | Carcinogenicity, Category 2 |
| Eye Irrit. 2 | Serious eye damage/eye irritation, Category 2 |
| Flam. Liq. 1 | Flammable liquids, Category 1 |
| STOT SE 3 | Specific target organ toxicity – Single exposure, Category 3, Respiratory tract Irritation |
| H224 | Extremely flammable liquid and vapour. |
| H319 | Causes serious eye irritation. |
| H335 | May cause respiratory irritation. |
| H351 | Suspected of causing cancer. |

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. Chemnovo Synthesis Pvt Ltd and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See www.chemnovo.in for additional terms and conditions of sale.

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