

MATERIAL SAFETY DATA SHEET (SDS/MSDS)

ADENINE 99% FOR BIOCHEMISTRY

CAS-No.: 73-24-5

Product Code: 00068

Molecular Formula: $C_5H_5N_5$

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

1.1. Product identifier

Product form	:	Substance
Trade name	:	Adenine 99% For Biochemistry
EC-No.	:	200-796-1
CAS No	:	73-24-5
Synonyms	:	Vitamin B4 / 6-Aminopurine

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

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]

Acute toxicity (oral), H301

Category 3

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

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

Xn; R22

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) :

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GHS06

Signal word (CLP)	:	Danger
Hazard statements (CLP)	:	H301 - Toxic if swallowed
Precautionary statements (CLP)	:	P301+P310 - IF SWALLOWED: immediately call a POISON CENTER or doctor/physician

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substance

Name	:	Adenine 99% For Biochemistry
CAS No	:	73-24-5
EC no	:	200-796-1

Full text of R- and H-statements: 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	:	Assure fresh air breathing. If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
First-aid measures after skin contact	:	Wash with plenty of soap and water. Get immediate 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. Call a POISON CENTER or doctor/physician if you feel unwell.

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

Symptoms/injuries after ingestion	:	Toxic if swallowed.
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4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

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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

No additional information available

5.3. Advice for firefighter

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

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 : On land, sweep or shovel into suitable containers. Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible.

6.4. Reference to other sections

No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Avoid contact with skin and eyes. Do not breathe vapours. Avoid dust formation.
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 : Store in a well-ventilated place. Keep container tightly closed.

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

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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	:	Solid
Molecular mass	:	135.13 g/mol
Colour	:	White powder
Odour	:	odourless.
Odour threshold	:	No data available
pH	:	7
Relative evaporation rate (butylacetate=1)	:	No data available
Melting point	:	> 360 °C
Freezing point	:	No data available
Boiling point	:	No data available
Flash point	:	No data available
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
Flammability (solid, gas)	:	No data available
Vapour pressure	:	No data available
Relative vapour density at 20 °C	:	No data available
Relative density	:	No data available
Solubility	:	Water: Slightly soluble in 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	:	No data available

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

Air contact. Moisture.

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10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

No additional information available

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity	:	Oral: Toxic if swallowed.
Skin corrosion/irritation	:	Not classified
pH	:	7
Serious eye damage/irritation	:	Not classified
pH	:	7
Respiratory or skin sensitisation	:	Not classified
Germ cell mutagenicity	:	Not classified
Carcinogenicity	:	Not classified
Reproductive toxicity	:	Not classified
Specific target organ toxicity (single exposure)	:	Not classified
Specific target organ toxicity (repeated exposure)	:	Not classified
Aspiration hazard	:	Not classified
Potential adverse human health effects and symptoms	:	Harmful if swallowed.

SECTION 12: Ecological information

12.1. Toxicity

No additional information available

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

SECTION 13: Disposal considerations

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13.1. Waste treatment methods

Product/Packaging disposal : Dispose of contents/container to ...
recommendations

SECTION 14: Transport information

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

14.1. UN number

UN-No. (ADR)	:	2811
UN-No. (IMDG)	:	2811
UN-No. (IATA)	:	2811
UN-No. (ADN)	:	2811
UN-No. (RID)	:	2811

14.2. UN proper shipping name

Proper Shipping Name (ADR)	:	TOXIC SOLID, ORGANIC, N.O.S.
Proper Shipping Name (IMDG)	:	TOXIC SOLID, ORGANIC, N.O.S.
Proper Shipping Name (IATA)	:	TOXIC SOLID, ORGANIC, N.O.S.
Proper Shipping Name (ADN)	:	TOXIC SOLID, ORGANIC, N.O.S.
Proper Shipping Name (RID)	:	TOXIC SOLID, ORGANIC, N.O.S.
Transport document description (ADR)	:	UN 2811 TOXIC SOLID, ORGANIC, N.O.S., 6.1, III, (E)
Transport document description (IMDG)	:	UN 2811 TOXIC SOLID, ORGANIC, N.O.S., 6.1, III
Transport document description (IATA)	:	UN 2811 TOXIC SOLID, ORGANIC, N.O.S., 6.1, III
Transport document description (ADN)	:	UN 2811 TOXIC SOLID, ORGANIC, N.O.S., 6.1, III
Transport document description (RID)	:	UN 2811 TOXIC SOLID, ORGANIC, N.O.S., 6.1, III

14.3. Transport hazard class(es)

ADR

Transport hazard class(es) (ADR)	:	6.1
Danger labels (ADR)	:	6.1
	:	



IMDG

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

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Transport hazard class(es) (IATA) : 6.1

Hazard labels (IATA) : 6.1

**AND**

Transport hazard class(es) (ADN) : 6.1

Danger labels (ADN) : 6.1

**RID**

Transport hazard class(es) (RID) : 6.1

Danger labels (RID) : 6.1

**14.4. Packing group**

Packing group (ADR) : III

Packing group (IMDG) : III

Packing group (IATA) : III

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Packing group (ADN)	:	III
Packing group (RID)	:	III
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)	:	T2
Special provision (ADR)	:	274, 614
Limited quantities (ADR)	:	5kg
Excepted quantities (ADR)	:	E1
Packing instructions (ADR)	:	P002, IBC08, LP02, R001
Special packing provisions (ADR)	:	B3
Mixed packing provisions (ADR)	:	Mp10
Portable tank and bulk container instructions (ADR)	:	T1
Portable tank and bulk container special provisions (ADR)	:	Tp33
Tank code (ADR)	:	SGAH, L4BH
Tank special provisions (ADR)	:	TU15, Te19
Vehicle for tank carriage	:	AT
Transport category (ADR)	:	2
Special provisions for carriage - Bulk (ADR)	:	VC1, VC2, Ap7
Special provisions for carriage - Loading, unloading and handling (ADR)	:	CV13, Cv28
Special provisions for carriage - Operation (ADR)	:	S9
Hazard identification number (Kemler No.)	:	60
Orange plates	:	

60**2811**

Tunnel restriction code (ADR)	:	E
EAC code	:	2X
- Transport by sea		
Special provision (IMDG)	:	223, 274
Limited quantities (IMDG)	:	5 kg
Excepted quantities (IMDG)	:	E1
Packing instructions (IMDG)	:	P002

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IBC packing instructions (IMDG)	:	IBC08
IBC special provisions (IMDG)	:	B3
Tank instructions (IMDG)	:	T1
Tank special provisions (IMDG)	:	Tp33
EmS-No. (Fire)	:	F-A
EmS-No. (Spillage)	:	S-A
Stowage category (IMDG)	:	A
MFAG-No	:	154
- Air transport		
PCA Excepted quantities (IATA)	:	E1
PCA Limited quantities (IATA)	:	Y645
PCA limited quantity max net quantity (IATA)	:	10kg
PCA packing instructions (IATA)	:	670
PCA max net quantity (IATA)	:	100kg
CAO packing instructions (IATA)	:	677
CAO max net quantity (IATA)	:	200kg
Special provision (IATA)	:	A3, A5
ERG code (IATA)	:	6L
- Inland waterway transport		
Classification code (ADN)	:	T2
Special provisions (ADN)	:	274, 614, 802
Limited quantities (ADN)	:	5 kg
Excepted quantities (ADN)	:	E1
Equipment required (ADN)	:	PP, EP
Number of blue cones/lights (ADN)	:	0
- Rail transport		
Classification code (RID)	:	T2
Special provision (RID)	:	274, 614
Limited quantities (RID)	:	5kg
Excepted quantities (RID)	:	E1
Packing instructions (RID)	:	P002, IBC08, LP02, R001
Special packing provisions (RID)	:	B3
Mixed packing provisions (RID)	:	Mp10
Portable tank and bulk container instructions (RID)	:	T1
Portable tank and bulk container special provisions (RID)	:	Tp33
Tank codes for RID tanks (RID)	:	SGAH, L4BH
Special provisions for RID tanks (RID)	:	Tu15
Transport category (RID)	:	2
Special provisions for carriage – Bulk (RID)	:	VC1, VC2, Ap7
Special provisions for carriage – Loading		

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and unloading (RID) : CW13, CW28, Cw31

Colis express (express parcels) (RID) : Ce11

Hazard identification number (RID) : 60

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

Adenine 99% For Biochemistry is not on the REACH Candidate List

Adenine 99% For Biochemistry is not on the REACH Annex XIV List

15.1.2. National regulations**Germany**

12th Ordinance Implementing the Federal

Immission Control Act – 12.BImSchV : Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

Denmark

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. 3 (Oral)	Acute toxicity (oral), Category 3
H301	Toxic if swallowed
R22	Harmful if swallowed
Xn	Harmful

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.

Version: 2.0

Revision Date: 15 March 2021