



Safety Data Sheet

METHYL NADIC ANHYDRIDE

Revision date :

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NUMBER

1 IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifiers

Chemical Name METHYL NADIC ANHYDRIDE
CAS NO. 25134-21-8

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

1. It is mainly used as curing agent for epoxy resins and raw material for UPR formulations.
2. A suitable curing cycle at high temperature it necessary to reach the best performances.
3. It can be easily mixed with various liquid resins providing stable ,low viscous mixture.

Details of the supplier of the safety data sheet

COMPANY

DR. J. PHARMACHEM (INDIA)
A-28, H BLOCK, MIDC PIMPRI
Pune - 411018
Maharashtra, India
Telephone : +91-20-24530071
Email - sales@jpharmachem.com

2 HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Human Health
Acute toxicity, Oral (Category 4), H302
Skin corrosion (Category 1C), H314
Respiratory sensitisation (Category 1), H334
Skin sensitisation (Category 1), H317
For the full text of the H-Statements mentioned in this Section, see Section 16.

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

Pictogram



Signal word

Danger

H302
H314
H317
H334

Harmful if swallowed.
Causes severe skin burns and eye damage
May cause an allergic skin reaction.
May cause allergy or asthma symptoms or breathing difficulties if inhaled

P261
P280

Avoid breathing vapours.
Wear protective gloves/ protective clothing/ eye protection/ face protection.

P305 + P351 + P338

IF IN EYES: Rinse cautiously with water for several minutes.

P310

Immediately call a POISON CENTER/doctor.



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none

2.3 Other hazards none

3 COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Component

Chemical Name	METHYL NADIC ANHYDRIDE
CAS NO	25134-21-8
EC Number	246-644-8
Molecular Formula	C ₁₀ H ₁₀ O ₃
Molecular Weight	176.1 g/mol
Concentration	<= 100 %

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

Take off contaminated clothing and shoes immediately.
Wash off with soap and plenty of water.
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 further relevant information available.



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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

5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary

5.4 Further information

No data available

6 ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions protective equipment and emergency procedures

Use personal protective equipment.
Avoid breathing vapours, mist or gas.
Ensure adequate ventilation.
Evacuate personnel to safe areas.
For personal protection see section 8

6.2 Environmental precautions

Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up

Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

For disposal see section 13.

7 HANDLING AND STORAGE

7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.
For precautions see section 2.2.

7.2 Information about protection against explosions and fires

No data available

7.3 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. Storage class (TRGS 510): 8A: Combustible, corrosive hazardous material

7.4 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated



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8 EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

8.2 Exposure control

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice.
Wash hands before breaks and at the end of workday

Personal protective equipment

Gloves.
Wear chemical goggles and face shield in combination.
Protective clothing.
Insufficient ventilation: wear respiratory protection.

Eye/face protection

Tightly fitting safety goggles
Faceshield (8-inch minimum)
Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Hands protection

Use gloves chemically resistant to this material when prolonged or repeated contact could occur.
Gloves should be classified under Standard EN 374 or ASTM F1296.
Suggested glove materials are: Neoprene, Nitrile/butadiene rubber, Polyethylene, Ethyl vinyl alcohol laminate, PVC or vinyl.
Be aware that the chemical may penetrate the gloves.
Frequent changes are advisable.
Suitable gloves for this specific application can be recommended by the glove supplier.

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, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace

Respiratory protection



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Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls.

If the respirator is the sole means of 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

Do not let product enter drains.

9 PHYSICAL AND CHEMICAL PROPERTIES

a) Appearance	Form: light yellow viscous liquid
b) Odour	irritating
c) Odour Threshold	No data available
d) pH (% solution in water)	10%
pH	2.4
e) Melting point/freezing point	< 18 °C
f) Initial boiling point and boiling range	140 °C
g) Flash point	135 Deg C
h) Evaporation rate	No data available
i) Flammability (solid or gas)	Not applicable
j) Upper/lower flammability or explosive limits	No data available
k) Vapour pressure	1.7 mmHg
l) Vapour density	6.1
m) Relative density	1.232 g/mL at 25 °C
n) Water solubility	Insoluble
o) Partition coefficient: n-octanol/water	1.35 + 0.03
p) Autoignition temperature	450 °C
q) Decomposition temperature	200 °C
r) Viscosity	230 mPa.s
s) Explosive properties	No data available
t) Oxidizing properties	No data available

9.2 Other safety information

Bulk Density	No data available
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10 STABILITY AND REACTIVITY

10.1	Reactivity	Carbon oxides may be emitted upon combustion of material. This material reacts with water or steam to form phthalic acids. This reaction is slightly exothermic
10.2	Chemical stability	Stable under recommended storage conditions
10.3	Possibility of hazardous reactions	Heating above 200 °C may result in product decomposition and release of hazardous fumes.
10.4	Conditions to avoid	Incompatible products. Exposure to moist air or water
10.5	Incompatible materials	Strong oxidizing agents, Strong acids, Strong bases
10.6	Hazardous decomposition products	Hazardous decomposition products formed under fire conditions. - Carbon oxides Other decomposition products - No data available In the event of fire: see section 5

11 TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute oral toxicity	LD50 Oral - Rat - 914 mg/kg Remarks: Behavioral:Somnolence (general depressed activity). Kidney, Ureter, Bladder:Hematuria. Nutritional and Gross Metabolic:Weight loss or decreased weight gain.
Acute Inhalation toxicity	LC50 inhalation rat 4 hours 8/10 @ 750 mg/cu meter in 7 days
Acute dermal toxicity	LD50 Dermal - Rat - 4.290 mg/kg Remarks: Behavioral:Somnolence (general depressed activity). Lungs, Thorax, or Respiration:Other changes.
Skin corrosion/irritation	Causes skin irritation
Serious eye damage/eye irritation	Causes serious eye damage.
Respiratory or skin sensitization	Prolonged or repeated exposure may cause allergic reactions in certain sensitive individuals.
Germ cell mutagenicity	No data available
IARC	No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.



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Reproductive toxicity	No data available
Specific target organ toxicity - single exposure	No data available
Specific target organ toxicity - repeated exposure	No data available
Signs and symptoms of exposure	Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated: Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation: Symptoms of allergic reaction may include rash,
Aspiration hazard	No data available
RTECS	RB9100000

Signs And Symptoms of Exposure

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

12 ECOLOGICAL INFORMATION

12.1	Toxicity	No data available
12.2	Persistence and degradability	
	Biodegradation	
	No data available	
12.3	Bio accumulative potential	No data available
12.4	Mobility in soil	No data available(Methyl-5-norbornene-2,3-dicarboxylicanhydride)
12.5	Results of PBT and vPvB assessment	PBT/vPvB assessment not available as chemical safety assessment not required/not conducted
12.6	Other adverse effects	No data available

13 DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product

Offer surplus and non-recyclable solutions to a licensed disposal company

Contaminated packaging

Dispose of as unused product.

14 TRANSPORT INFORMATION



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14.1 UN number

ADR/RID	IMDG	IATA
3265	3265	3265

14.2 UN proper shipping name

ADR/RID	IMDG	IATA
CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (Methyl-5-norbornene-2,3-dicarboxylicanhydride)	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (Methyl-5-norbornene-2,3-dicarboxylicanhydride)	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (Methyl-5-norbornene-2,3-dicarboxylicanhydride)

14.3 Transport hazard class(es)

ADR/RID	IMDG	IATA
8	8	8

14.4 Packaging group

ADR/RID	IMDG	IATA
III	III	III

14.5 Environmental hazards

ADR/RID	IMDG Marine pollutant	IATA
No	No	No

14.6 Special precautions for user No data available

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

16 OTHER INFORMATION

H302	Harmful if swallowed
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled
Month of Creation	March, 2019.
Month of Revision	March, 2022.