

Revision Date 24-Nov-2010

Revision Number 1

## 1. PRODUCT AND COMPANY IDENTIFICATION

**Product Identifier**

**Product Description:** Methyl-5-norbornene-2,3-dicarboxylic anhydride, mixture of isomers  
**Cat No.** 216270000; 216270010; 216270050; 216272500  
**Synonyms** Methylbicyclo[2.2.1]hept-5-ene-2,3-dicarboxylic anhydride; Methyl nadic anhydride

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

**Recommended Use** Laboratory chemicals  
**Uses advised against** No Information available

**Details of the supplier of the safety data sheet**

**Company**  
 Acros Organics BVBA  
 Janssen Pharmaceuticaaan 3a  
 2440 Geel, Belgium  
**E-mail address** begel.sdsdesk@thermofisher.com

**Emergency Telephone Number**  
 For information in the US, call: 800-ACROS-01  
 For information in Europe, call: +32 14 57 52 11

Emergency Number, Europe: +32 14 57 52 99  
 Emergency Number, US: 201-796-7100

CHEMTREC Phone Number, US: 800-424-9300  
 CHEMTREC Phone Number, Europe: 703-527-3887

## 2. HAZARDS IDENTIFICATION

**Classification of the substance or mixture**

**REGULATION (EC) No 1272/2008**

Acute oral toxicity	Category 4
Acute Inhalation Toxicity - Dusts and Mists	Category 4
Skin Corrosion / irritation	Category 1
Serious Eye Damage/Eye Irritation	Category 1
Respiratory Sensitization	Category 1

**Classification according to EU Directives 67/548/EEC or 1999/45/EC**

*For the full text of the R phrases mentioned in this Section, see Section 16*

**Symbol(s)** C - Corrosive  
**R -phrase(s)** R34 - Causes burns  
 R42 - May cause sensitization by inhalation  
**Risk Combination Phrases** R20/22 - Harmful by inhalation and if swallowed

**2. HAZARDS IDENTIFICATION**

**Label Elements**



**Signal Word**

**Danger**

**Hazard Statements**

- H314 - Causes severe skin burns and eye damage
- H332 - Harmful if inhaled
- H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled
- H318 - Causes serious eye damage
- H302 - Harmful if swallowed

**Precautionary Statements - EU (§28, 1272/2008)**

- P301 + P330 + P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting
- P280 - Wear 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
- P310 - Immediately call a POISON CENTER or doctor/physician
- P261 - Avoid breathing dust/fume/gas/mist/vapors/spray
- P304 + P341 - IF INHALED: If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing
- P342 + P311 - If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician
- P301+ P312 - IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
- P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing

**Other Hazards**

No information available.

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Component	EC No.	Weight %	CAS-No	Classification	GHSCLAS	REACH Reg. No.
Mentetrahydrophthalic anhydride 25134-21-8	EEC No. 246- 644-8	100	25134-21-8	Xn; R20/22 C; R34 R42	Skin Corr. 1B (H314) Resp. Sens. 1 (H334) Acute Tox. 4 (H302) Acute Tox. 4 (H332)	-

**For the full text of the R phrases mentioned in this Section, see Section 16**

#### 4. FIRST AID MEASURES

**Description of first aid measures****Eye Contact**

Immediate medical attention is required Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes

**Skin Contact**

Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes Immediate medical attention is required

**Ingestion**

Do not induce vomiting Call a physician immediately

**Inhalation**

Remove from exposure, lie down Move to fresh air If breathing is difficult, give oxygen If not breathing, give artificial respiration Immediate medical attention is required

**Notes to Physician**

Treat symptomatically

#### 5. FIRE-FIGHTING MEASURES

**Extinguishing media****Suitable Extinguishing Media**

Carbon dioxide (CO<sub>2</sub>) Dry chemical chemical foam

**Extinguishing media which must not be used for safety reasons**

No information available.

**Special hazards arising from the substance or mixture**

Thermal decomposition can lead to release of irritating gases and vapors

**Advice for fire-fighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear

#### 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment and emergency procedures**

Ensure adequate ventilation

**Environmental precautions**

Prevent further leakage or spillage if safe to do so

**Methods and material for containment and cleaning up**

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Keep in suitable and closed containers for disposal. Do not let this chemical enter the environment.

#### 7. HANDLING AND STORAGE

**Precautions for Safe Handling**

Do not breathe dust Do not breathe vapors or spray mist Do not get in eyes, on skin, or on clothing Do not ingest Use only in area provided with appropriate exhaust ventilation

**Conditions for safe storage, including any incompatibilities**

Keep in a dry, cool and well-ventilated place Keep container tightly closed Corrosives area

Specific End Uses

**8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

Control parameters

Exposure limits

This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Derived No Effect Level (DNEL)

No information available.

Predicted No Effect Concentration (PNEC)

No information available.

Exposure controls

Engineering Measures

Ensure adequate ventilation, especially in confined areas Ensure that eyewash stations and safety showers are close to the workstation location

Personal protective equipment

Eye Protection

Goggles

Hand Protection

Protective gloves

Skin and body protection

Wear appropriate protective gloves and clothing to prevent skin exposure

Respiratory Protection

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice

Environmental exposure controls

No information available.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

Physical State

viscous liquid, Liquid

Appearance

Light yellow

odor

odorless

pH

No information available.

Vapor Pressure

5 mmHg @ 120 °C

Vapor Density

6.14

Viscosity

175-225 cPs at 25 °C

Boiling Point/Range

No information available.

Melting Point/Range

No information available.

Flash Point

135°C / 275°F

Water Solubility

reacts

Specific Gravity

1.230

Molecular Formula

C10 H10 O3

Molecular Weight

178.18

**10. STABILITY AND REACTIVITY**

Reactivity

Chemical Stability

Moisture sensitive.

Possibility of Hazardous Reactions

Hazardous Polymerization

No information available.

**Hazardous Reactions .** No information available.

**Conditions to Avoid**  
 Incompatible products, Exposure to moist air or water.

**Incompatible Materials**  
 Strong oxidizing agents, Strong acids, Strong bases.

**Hazardous Decomposition Products**  
 Carbon monoxide (CO). Carbon dioxide (CO<sub>2</sub>).

**11. TOXICOLOGICAL INFORMATION**

**Information on Toxicological Effects**

**Acute Toxicity**

**Product Information** No acute toxicity information is available for this product

**Component Information**

**Component**  
 Memtetrahydrophthalic anhydride

LD50 Oral	LD50 Dermal	LC50 Inhalation
914 mg/kg ( Rat )	4920 mg/kg ( Rat )	

**Chronic Toxicity**

**Carcinogenicity** There are no known carcinogenic chemicals in this product

**Sensitization** May cause sensitization by inhalation

**Mutagenic Effects** No information available

**Reproductive Effects** No information available.

**Developmental Effects** No information available.

**Target Organs** No information available.

**Other Adverse Effects** The toxicological properties have not been fully investigated. See actual entry in RTECS for complete information

**Endocrine Disruptor Information** None known

**12. ECOLOGICAL INFORMATION**

**Toxicity**  
**Ecotoxicity effects** Do not empty into drains

**Persistence and degradability**  
 No information available

**Bioaccumulative potential**  
 No information available.

**Mobility in soil**

**12. ECOLOGICAL INFORMATION**

No information available.

**Results of PBT and vPvB assessment**

**Other adverse effects**

No information available

**13. DISPOSAL CONSIDERATIONS**

**Waste treatment methods**

**Waste from Residues / Unused Products**

Dispose of in accordance with local regulations

**Contaminated Packaging**

Empty containers should be taken for local recycling, recovery or waste disposal

**14. TRANSPORT INFORMATION**

**IMDG/IMO**

UN-No 3265  
 Hazard Class 8  
 Packing Group III  
 Proper Shipping Name CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.

**ADR**

UN-No 3265  
 Hazard Class 8  
 Packing Group III  
 Proper Shipping Name CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.

**IATA**

UN-No 3265  
 Hazard Class 8  
 Packing Group III  
 Proper Shipping Name CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.\*

**15. REGULATORY INFORMATION**

**Safety, health and environmental regulations/legislation specific for the substance or mixture**

**International Inventories**

Component	EINECS	ELINCS	NLP	TSCA	DSL	NDSL	PICCS	ENCS	CHINA	AICS	KECL
Memtetrahydrophthalic anhydride	246-644-8	-		X	X	-	X	X	X	X	KE-33483 X

**Legend**

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory

**EINECS/ELINCS** - European Inventory Lists

**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List

**PICCS** - Philippines Inventory of Chemicals and Chemical Substances  
**ENCS** - Japan Existing and New Chemical Substances  
**CHINA** - China Inventory of Existing Chemical Substances  
**AICS** - Inventory of Chemical Substances  
**KECL** - Existing and Evaluated Chemical Substances

### **Chemical Safety Assessment**

## **16. OTHER INFORMATION**

### **Text of R phrases mentioned in Section 2-3**

R34 - Causes burns  
R42 - May cause sensitization by inhalation  
R20/22 - Harmful by inhalation and if swallowed

**Revision Date** 24-Nov-2010  
**Revision Summary** Not applicable  
**This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006**

### **Disclaimer**

The information provided on this SDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text

**End of Safety Data Sheet**