SAFETY DATA SHEET

Creation Date 16-Nov-2012 **Revision Date** 16-Nov-2012 **Revision Number** 1

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

Product Identifier

Product Description: **4,4'-Methylenebis(2-methylcyclohexylamine)**
Cat No. **450240000; 450242500; 450240010**
Synonyms 3,3'-Dimethyl-4,4'-diaminodicyclohexylmethane

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 Pharmaceuticalaan 3a
2440 Geel, Belgium
E-mail address begel.sdsdesk@thermofisher.com

Emergency Telephone Number
For information in the US, call: 001-800-ACROS-01
For information in Europe, call: +32 14 57 52 11

Emergency Number, Europe: +32 14 57 52 99
Emergency Number, US: 001-201-796-7100

CHEMTREC Phone Number, US: 001-800-424-9300
CHEMTREC Phone Number, Europe: 001-703-527-3887

SECTION 2. HAZARDS IDENTIFICATION

Classification of the substance or mixture
REGULATION (EC) No 1272/2008

Acute oral toxicity	Category 4
Acute dermal toxicity	Category 3
Acute Inhalation Toxicity - Vapors	Category 2
Skin Corrosion/irritation	Category 1 A
Serious Eye Damage/Eye Irritation	Category 1
Chronic aquatic toxicity	Category 2

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

For the full text of the R-phrases and H-Statements mentioned in this Section, see Section 16

Symbol(s) T - Toxic
C - Corrosive
N - Dangerous for the environment

R-phrase(s) R22 - Harmful if swallowed
R35 - Causes severe burns

Risk Combination Phrases R23/24 - Toxic by inhalation and in contact with skin
R51/53 - Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

SECTION 2. HAZARDS IDENTIFICATION

Label Elements

Signal Word **Danger**

Hazard Statements

H302 - Harmful if swallowed
H311 - Toxic in contact with skin
H330 - Fatal if inhaled
H314 - Causes severe skin burns and eye damage
H411 - Toxic to aquatic life with long lasting effects

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

P273 - Avoid release to the environment
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

Other Hazards

No information available.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	EC-No.	Weight %	CAS-No	67/548/EEC Classification	CLP Classification - Regulation (EC) No 1272/2008	REACH No.
4,4'-Methylenebis(2-methylcyclohexylamine) 6864-37-5	EEC No. 229-962-1	>95	6864-37-5	Xn; R22 T; R23/24 C; R35 N; R51-53	Acute Tox. 4 (H302) Acute Tox. 3 (H311) Acute Tox. 2 (H330) Skin Corr. 1A (H314) Eye Dam. 1 (H318) Aquatic Chronic 2 (H411)	-

For the full text of the R-phrases and H-Statements mentioned in this Section, see Section 16

SECTION 4. FIRST AID MEASURES

Description of first aid measures

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

Skin Contact Wash off immediately with plenty of water for at least 15 minutes. Immediate medical attention is required.

Ingestion Do not induce vomiting. Call a physician or Poison Control Center immediately.

Inhalation Move to fresh air. If breathing is difficult, give oxygen. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with a respiratory medical device. Immediate medical attention is required.

Notes to Physician Treat symptomatically

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing media

Suitable Extinguishing Media
CO_2, dry chemical, dry sand, alcohol-resistant foam.

Extinguishing media which must not be used for safety reasons
Do not use halon type extinguisher.

Special hazards arising from the substance or mixture

Keep product and empty container away from heat and sources of ignition.

Advice for fire-fighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Thermal decomposition can lead to release of irritating gases and vapors.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Ensure adequate ventilation. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

Environmental precautions

Should not be released into the environment.

Methods and material for containment and cleaning up

Soak up with inert absorbent material. Keep in suitable, closed containers for disposal..

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling

Use only under a chemical fume hood. Wear personal protective equipment. Do not breathe vapors or spray mist. Do not get in eyes, on skin, or on clothing. Do not ingest.

Conditions for safe storage, including any incompatibilities

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

Specific End Uses

SECTION 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.
Biological limit values	This product, as supplied, does not contain any hazardous materials with biological 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	Use only under a chemical fume hood Ensure that eyewash stations and safety showers are close to the workstation location
Personal protective equipment	
Eye Protection	Safety glasses with side-shields
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.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	viscous liquid
Appearance	Clear

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

pH	No information available.
Viscosity	142 mPa.s (20°C)
Boiling Point/Range	93 - 100°C / 199.4 - 212°F
Melting Point/Range	No information available.
Flash Point	113°C / 235.4°F
Autoignition Temperature	No information available.
Explosion Limits	
Lower	0.5 Vol%
Upper	2.8 Vol%
Specific Gravity	0.94
Molecular Formula	C15 H30 N2
Molecular Weight	238.41

SECTION 10. STABILITY AND REACTIVITY

Reactivity

Chemical Stability

Stable under normal conditions.

Possibility of Hazardous Reactions

Hazardous Polymerization	No information available
Hazardous Reactions .	None under normal processing..

Conditions to Avoid

Incompatible products, Excess heat.

Incompatible Materials

Strong oxidizing agents, Acids.

Hazardous Decomposition Products

Carbon monoxide (CO). Carbon dioxide (CO_2).

SECTION 11. TOXICOLOGICAL INFORMATION

Information on Toxicological Effects

Acute Toxicity

Component Information

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation (Dust)

SECTION 11. TOXICOLOGICAL INFORMATION

4,4'-Methylenebis(2-methylcyclohexylamine)	320 mg/kg (Rat)	200 mg/kg (Rabbit)	0.42 mg/L (Rat) 4 h

Chronic Toxicity

Carcinogenicity There are no known carcinogenic chemicals in this product

Sensitization No information available.
Mutagenic Effects Not mutagenic in AMES Test
Reproductive Effects No information available.
Developmental Effects No information available.
Target Organs Skin Respiratory system Eyes Gastrointestinal tract (GI)
Other Adverse Effects See actual entry in RTECS for complete information
Endocrine Disruptor Information None known

SECTION 12. ECOLOGICAL INFORMATION

Toxicity
Ecotoxicity effects Do not empty into drains

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
4,4'-Methylenebis(2-methylcyclohexylamine)	1.6 mg/L EC50 = 96 h 2.1 mg/L EC50 = 72 h	21.5 - 46.4 mg/L LC50 96 h		15.2 mg/L EC50 = 48 h

Persistence and degradability
Not readily biodegradable
Bioaccumulative potential
No information available.

Component	log Pow
4,4'-Methylenebis(2-methylcyclohexylamine)	2.51

Mobility in soil
No information available.
Results of PBT and vPvB assessment
Other adverse effects
No information available

SECTION 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 to local recyclers for disposal

SECTION 14. TRANSPORT INFORMATION

IMDG/IMO

UN-No	UN2927
Hazard Class	6.1
Subsidiary Hazard Class	8
Packing Group	II
Proper Shipping Name	Toxic liquid, corrosive, organic, n.o.s

ADR

UN-No	UN2927
Hazard Class	6.1
Subsidiary Hazard Class	8
Packing Group	II
Proper Shipping Name	Toxic liquid, corrosive, organic, n.o.s

IATA

UN-No	UN2927
Hazard Class	6.1
Subsidiary Hazard Class	8
Packing Group	II
Proper Shipping Name	Toxic liquid, corrosive, organic, n.o.s

SECTION 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
4,4'-Methylenebis(2-methylcyclohexylamine)	229-962-1	-		X	X	-	X	X	X	X	X

Legend

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances

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

SECTION 16. OTHER INFORMATION

Full text of R-phrases referred to under sections 2 and 3
R22 - Harmful if swallowed
R35 - Causes severe burns
R23/24 - Toxic by inhalation and in contact with skin
R51/53 - Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

Revision Date 16-Nov-2012
Revision Summary
Reason for revision Not applicable
This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006
Disclaimer
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End of Safety Data Sheet