



SAFETY DATA SHEET

Issuing Date 02-Aug-2013

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Revision Number 5

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product Identifier

Product Name **DIMETHYL DICYKAN**

Other means of identification

Product Code 3613300
CAS Number 6864-37-5
Formula C15H30N2
Synonyms Cyclohexanamine, 4,4'-Methylenebis[2-Methyl-
UN-No UN2927

Recommended use of the chemical and restrictions on use

Recommended Use Coatings
Uses advised against Avoid contact with food. Avoid prolonged contact with eyes, skin, and clothing.

Details of the supplier of the safety data sheet

Supplier Address ACETO CORPORATION
4 Tri Harbor Court
Port Washington, NY 11050-4661
Phone: (516) 627-6000
Fax: (516) 627-6093
Email: aceto@aceto.com

Emergency Telephone Number(s)

ChemTrec: 1-800-424-9300 Outside of the United States: 1-703-527-3887

2. HAZARDS IDENTIFICATION

Classification

Acute toxicity - Oral	Category 4
Acute toxicity - Dermal	Category 3
Acute toxicity - Inhalation (Vapors)	Category 3
Skin Corrosion/Irritation	Category 1 Sub-category A
Serious eye damage/eye irritation	Category 1

Label elements

Emergency Overview

Signal Word
DANGER

Hazard statements

Harmful if swallowed
 Toxic in contact with skin
 Toxic if inhaled
 Causes severe skin burns and eye damage
 Toxic to aquatic life with long lasting effects Avoid release to the environment

**Appearance**

Light yellow

Physical State

Liquid

Odor

Amine-like

Precautionary Statements - Prevention

Wash face, hands and any exposed skin thoroughly after handling
 Do not eat, drink or smoke when using this product
 Use only outdoors or in a well-ventilated area
 Do not breathe dust/fume/gas/mist/vapors/spray
 Wear protective gloves/protective clothing/eye protection/face protection

Precautionary Statements - Response

Specific treatment (see supplemental first aid instructions on this label)
 Immediately call a POISON CENTER or doctor/physician
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
 Immediately call a POISON CENTER or doctor/physician
 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
 Wash contaminated clothing before reuse
 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
 Immediately call a POISON CENTER or doctor/physician
 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
 Rinse mouth
 Do NOT induce vomiting

Precautionary Statements - Storage

Store locked up
 Store in a well-ventilated place. Keep container tightly closed

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

None known

Other Information

No information available

3. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms

Cyclohexanamine, 4,4'-Methylenebis[2-Methyl-

Formula

C₁₅H₃₀N₂

Chemical Name	CAS No	Weight-%	North American Hazard Indicator
Cyclohexanamine, 4,4'-Methylenebis[2-Methyl-	6864-37-5	100	True

4. FIRST AID MEASURES

First Aid Measures

General Advice	Show this safety data sheet to the doctor in attendance.
Eye Contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Call a physician or poison control center immediately.
Skin Contact	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Wash contaminated clothing before reuse. Destroy contaminated shoes. Call a physician or poison control center immediately.
Inhalation	Remove to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Call a physician or poison control center immediately.
Ingestion	Do NOT induce vomiting. Rinse mouth. Never give anything by mouth to an unconscious person. Call a physician or poison control center immediately.
Self-Protection of the First Aider	Use personal protective equipment as required. Avoid contact with eyes, skin and clothing.

Most important symptoms and effects, both acute and delayed

Signs and Symptoms No information available.

Indication of any immediate medical attention and special treatment needed

Notes to Physician Treat symptomatically.

5. FIRE-FIGHTING MEASURES

<u>Suitable Extinguishing Media</u>	Water spray. Alcohol-resistant foam. Dry chemical. Carbon dioxide (CO ₂).
<u>Unsuitable Extinguishing Media</u>	No information available.
<u>Hazardous Combustion Products</u>	Carbon oxides. Nitrogen oxides.
<u>Explosion Data</u>	Not available
Sensitivity to mechanical impact	Not available.
Sensitivity to static discharge	Not available.

Specific Hazards Arising from the Chemical

Thermal decomposition can lead to release of irritating gases and vapours. In the event of fire and/or explosion do not breathe fumes.

Protective Equipment and Precautions for Firefighters

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

Personal Precautions Evacuate personnel to safe areas. Ensure adequate ventilation. Use personal protective equipment as required. Avoid contact with eyes, skin and clothing. In case of insufficient ventilation, wear suitable respiratory equipment.

Environmental Precautions Local authorities should be advised if significant spillages cannot be contained. Prevent further leakage or spillage if safe to do so. Do not flush into surface water or sanitary sewer system. Prevent product from entering drains. Do not allow into any sewer, on the ground or into any body of water. Should not be released into the environment.

Methods and material for containment and cleaning up

Methods for Clean-up Evacuate personnel to safe areas. Absorb spill with inert material (e.g. dry sand or earth), then place in a chemical waste container. Clean contaminated surface thoroughly.

7. HANDLING AND STORAGE

Precautions for Safe Handling

Handling Use only in an area equipped with a safety shower. Ensure that eyewash stations and safety showers are close to the workstation location. Ensure adequate ventilation. Use only in well-ventilated areas. Do not breathe vapours or spray mist. Avoid contact with eyes, skin and clothing. Avoid repeated exposure.

Conditions for safe storage, including any incompatibilities

Storage Keep containers tightly closed in a dry, cool and well-ventilated place. Keep in properly labeled containers.

Incompatible Materials Strong Acids. Zinc and its Alloys. Ammonium salts. Acid chlorides. Acid anhydrides. Strong Oxidizing Agents.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Cyclohexanamine, 4,4'-Methylenebis[2-Methyl- 6864-37-5	-	-	-

Appropriate engineering controls

Engineering Controls Ensure adequate ventilation, especially in confined areas.

Individual protection measures, such as personal protective equipment

Eye/Face Protection Tight sealing safety goggles. Face protection shield.

Skin and body protection Use suitable eye protection and gloves.

Respiratory Protection In case of insufficient ventilation, wear suitable respiratory equipment.

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance Light yellow

Physical State	Liquid	
Odor	Amine-like	
Odor Threshold	No information available	
Property	Values	Remarks • Method
pH	11	
Melting point / Freezing point	-7 10 -1 °C	Literary Reference
Boiling point / boiling range	347 °C	
Flash Point	>100 °C	CC (closed cup)
Evaporation Rate		
Flammability (solid, gas)		
Flammability Limit in Air		
Upper flammability limit	No information available	
Lower flammability limit	Not available	
Vapor Pressure	0.0003 hPa @ 30°C	
Vapor Density	Not available	
Specific Gravity	0.94 g/mL @ 25°C	
Water Solubility	3.6 g/L @ 20°C	
Solubility in other solvents	No information available	
Partition coefficient: n-octanol/water	Not available	
Autoignition temperature °C	275 °C	Estimated
Decomposition temperature	No data available	
Kinematic Viscosity	No information available	
Dynamic Viscosity	Not available	
Explosive Properties	No information available	
Oxidizing Properties	No information available	
Other Information		
Softening Point	No information available	
Molecular Weight	238.41g/mol	
VOC content	No information available	
Density	No information available	
Bulk Density	No information available	

10. STABILITY AND REACTIVITY

Reactivity	Not applicable.
Chemical Stability	Stable under normal conditions
Hazardous Polymerization	None under normal processing Hazardous polymerization does not occur
Conditions to Avoid	Heat, flames and sparks.
Incompatible Materials	Strong Acids. Zinc and its Alloys. Ammonium salts. Acid chlorides. Acid anhydrides. Strong Oxidizing Agents.
Hazardous Decomposition Products	Carbon oxides. Nitrogen oxides (NOx).
Possibility of Hazardous Reactions	None under normal processing

11. TOXICOLOGICAL INFORMATION

Product Information

The following values are calculated based on chapter 3.1 of the GHS document .

ATEmix (oral)	320 mg/kg
ATEmix (dermal)	300 mg/kg

Information on likely routes of exposure

Eyes	Corrosive. Causes burns. Risk of serious damage to eyes. Avoid contact with eyes.
Skin	Toxic in contact with skin. Corrosive. Causes burns. Pain. Redness. Avoid contact with skin.
Inhalation	Toxic by inhalation. Corrosive. Causes burns. Inhalation may result in spasm, inflammation and edema of the larynx and bronchi, chemical pneumonitis, and pulmonary edema. Coughing. Wheezing. Shortness of breath. Headache. Nausea. Breathing difficulties. Symptoms may be delayed. Avoid breathing vapors or mists.
Ingestion	Toxic if swallowed. Ingestion causes burns of the upper digestive and respiratory tracts. Can burn mouth, throat, and stomach. Do not take internally.

Information on toxicological effects

Symptoms No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Serious eye damage/irritation	No information available.
Corrosivity	Corrosivity. Causes burns.
Skin Corrosion/Irritation	No information available.
Sensitization	No information available.
Reproductive Effects	No information available.
Mutagenic Effects	No information available.
Developmental Effects	No information available.
STOT - single exposure	No information available.
STOT - Repeated Exposure	No information available.
Chronic Toxicity	Avoid repeated exposure. The substance may have effects on the skin resulting in chronic disease (scleroderma). The substance may have effects on the blood , cardiovascular system , kidneys and liver, resulting in anaemia , cardiac disorders , kidney impairment and liver impairment. May cause lung edema .
Target Organ Effects	Connective Tissue, Eyes, Skin, Respiratory system.
Aspiration Hazard	No information available.

Numerical measures of toxicity - Product Information

ATEmix (inhalation-gas)	700 mg/L
ATEmix (inhalation-dust/mist)	43.1 mg/L
ATEmix (inhalation-vapor)	3 mg/L

12. ECOLOGICAL INFORMATION

Ecotoxicity

Toxic to aquatic life with long lasting effects. Avoid release to the environment.

Chemical Name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Cyclohexanamine, 4,4'-Methylenebis[2-Methyl-6864-37-5	= 1.6 mg/L EC50 = 2.1 mg/L EC50 1.6: 96 h Desmodemus subspicatus mg/L EC50 2.1: 72 h Desmodemus subspicatus mg/L EC50		= 96 mg/L EC50 Pseudomonas putida 17 h	= 15.2 mg/L EC50 15.2: 48 h Daphnia magna Straus mg/L EC50

Persistence/Degradability No information available.

Bioaccumulation/Accumulation Does not bioaccumulate.

Mobility in Soil No information available.

Chemical Name	log Pow =
Cyclohexanamine, 4,4'-Methylenebis[2-Methyl-6864-37-5	2.51

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal Methods Contact waste disposal services. Dispose of in accordance with local regulations.

Contaminated Packaging Dispose of in accordance with local regulations. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. TRANSPORT INFORMATION

DOT

UN-No UN2927
Proper Shipping Name Toxic liquid, corrosive, organic, n.o.s
Hazard Class 6.1
Subsidiary Class 8
Packing Group II
Description UN2927, TOXIC LIQUIDS, CORROSIVE, ORGANIC, N.O.S. (Cyclohexanamine, 4,4'-Methylenebis[2-Methyl-), 6.1 (8), II, Marine pollutant, POISON
Emergency Response Guide Number 154

TDG

UN-No UN2927
Proper Shipping Name Toxic liquid, corrosive, organic, n.o.s.
Hazard Class 6.1
Subsidiary Class 8
Packing Group II
Description UN2927, Toxic liquid, corrosive, organic, n.o.s., N.O.S. (Cyclohexanamine, 4,4'-Methylenebis[2-Methyl-), 6.1 (8), II, Marine pollutant, POISON

MEX

UN-No UN2927
Proper Shipping Name Toxic liquid, corrosive, organic, n.o.s.
Hazard Class 6.1
Subsidiary Class 8
Packing Group II
Description UN2927, Toxic liquid, corrosive, organic, n.o.s., N.O.S. (Cyclohexanamine, 4,4'-Methylenebis[2-Methyl-), 6.1 (8), II, Marine pollutant, POISON

ICAO

UN-No UN2927
Proper Shipping Name Toxic liquid, corrosive, organic, n.o.s.
Hazard Class 6.1
Subsidiary Class 8
Packing Group II
Description UN2927, Toxic liquid, corrosive, organic, n.o.s., N.O.S. (Cyclohexanamine, 4,4'-Methylenebis[2-Methyl-], 6.1 (8), II, Marine pollutant, POISON

IATA

UN-No UN2927
Proper Shipping Name Toxic liquid, corrosive, organic, n.o.s.
Hazard Class 6.1
Subsidiary Class 8
Packing Group II
Description UN2927, Toxic liquid, corrosive, organic, n.o.s., N.O.S. (Cyclohexanamine, 4,4'-Methylenebis[2-Methyl-], 6.1 (8), II, Marine pollutant, POISON

IMDG/IMO

UN-No UN2927
Proper Shipping Name Toxic liquid, corrosive, organic, n.o.s.
Hazard Class 6.1
Subsidiary Class 8
Packing Group II
EmS No. F-A, S-B
Description UN2927, Toxic liquid, corrosive, organic, n.o.s., N.O.S. (Cyclohexanamine, 4,4'-Methylenebis[2-Methyl-], 6.1 (8), II, Marine pollutant, POISON

RID

UN-No UN2927
Proper Shipping Name Toxic liquid, corrosive, organic, n.o.s.
Hazard Class 6.1
Packing Group II
Classification Code TC1
Description UN2927, Toxic liquid, corrosive, organic, n.o.s., N.O.S. (Cyclohexanamine, 4,4'-Methylenebis[2-Methyl-], 6.1 (8), II, Marine pollutant, POISON
ADR/RID-Labels 6.1 + 8

ADR

UN-No UN2927
Proper Shipping Name Toxic liquid, corrosive, organic, n.o.s.
Hazard Class 6.1
Packing Group II
Classification Code TC1
Tunnel Restriction Code (D/E)
Description UN2927, Toxic liquid, corrosive, organic, n.o.s., N.O.S. (Cyclohexanamine, 4,4'-Methylenebis[2-Methyl-], 6.1 (8), II, Marine pollutant, POISON
ADR/RID-Labels 6.1 + 8

ADN

Proper Shipping Name Toxic liquid, corrosive, organic, n.o.s.
Hazard Class 6.1
Packing Group II
Classification Code TC1
Special Provisions 274, 802
Description UN2927, Toxic liquid, corrosive, organic, n.o.s., N.O.S. (Cyclohexanamine, 4,4'-Methylenebis[2-Methyl-], 6.1 (8), II, Marine pollutant, POISON
Hazard Labels 6.1 + 8
Limited Quantity 100 ml
Ventilation VE02
Equipment Requirements PP, EP, TOX, A

15. REGULATORY INFORMATION

International Inventories

U.S.A. (TSCA)	Complies
Canada (DSL)	Complies
EU (EINECS)	Complies
EU (ELINCS)	Does not comply
Japan (ENCS)	Complies
China (IECSC)	Complies
Korea (KECL)	Complies
Philippines (PICCS)	Complies
Australia (AICS)	Complies

Chemical Name	U.S.A. (TSCA)	Canada (DSL)	EU (EINECS)	EU (ELINCS)	
Cyclohexanamine, 4,4'-Methylenebis[2-Methyl-	Present	Present	Present	-	
Component	Japan (ENCS)	China (IECSC)	Korea (KECL)	Philippines (PICCS)	Australia (AICS)
Cyclohexanamine, 4,4'-Methylenebis[2-Methyl-6864-37-5 (100)	Present (4)-102	Present	Present	Present	Present
Chemical Name	Mexico INV		Taiwan INV		
Cyclohexanamine, 4,4'-Methylenebis[2-Methyl-6864-37-5	-		-		

Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

SARA 311/312 Hazard Categories

Acute Health Hazard	Yes
Chronic Health Hazard	Yes
Fire Hazard	No
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

State Right-to-Know

This product does not contain any State Right-to-Know chemicals.

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

Canada

WHMIS Statement

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

NFPA

Health 3

Flammability 1

Instability 0

Physical Hazard 0



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05-Apr-2017

Revision Summary

Not available

Disclaimer

The information provided in this Safety Data Sheet 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 guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered 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 materials or in any process, unless specified in the text.

End of Safety Data Sheet