# Thermo Fisher SCIENTIFIC

# SAFETY DATA SHEET

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ALFAAA17364

# N,N-Dimethylhexylamine

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

产品说明: N,N-二甲基己胺

Product Description: N,N-Dimethylhexylamine

 Cat No.:
 A17364

 CAS No
 4385-04-0

 Molecular Formula
 C8 H19 N

**Supplier** Avocado Research Chemicals Ltd.

(Part of Thermo Fisher Scientific)

Shore Road, Heysham Lancashire, LA3 2XY, United Kingdom

Office Tel: +44 (0) 1524 850506 Office Fax: +44 (0) 1524 850608

Emergency Telephone Number For information US call: 001-800-227-6701 / Europe call: +32 14 57 52 11

Emergency Number **US:**001-201-796-7100 / **Europe:** +32 14 57 52 99 **CHEMTREC** Tel. No. **US:**001-800-424-9300 / **Europe:**001-703-527-3887

E-mail address begel.sdsdesk@thermofisher.com

Recommended Use Laboratory chemicals.
Uses advised against No Information available

#### **SECTION 2. HAZARD IDENTIFICATION**

Physical State Appearance Odor

Liquid Colorless No information available

**Emergency Overview** 

Highly flammable liquid and vapor. Causes severe skin burns and eye damage. Moisture sensitive.

#### Classification of the substance or mixture

Flammable liquids.	Category 3
Skin Corrosion/Irritation	Category 1 B
Serious Eye Damage/Eye Irritation	Category 1

#### **Label Elements**



Signal Word Danger

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#### N,N-Dimethylhexylamine

#### **Hazard Statements**

H226 - Flammable liquid and vapor

H314 - Causes severe skin burns and eye damage

#### **Precautionary Statements**

# Prevention

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking

P233 - Keep container tightly closed

P240 - Ground and bond container and receiving equipment

P241 - Use explosion-proof electrical/ ventilating/ lighting equipment

P242 - Use non-sparking tools

P243 - Take action to prevent static discharges

P264 - Wash face, hands and any exposed skin thoroughly after handling

P280 - Wear protective gloves/protective clothing/eye protection/face protection

#### Response

P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower

P301 + P330 + P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting

P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing

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

P370 + P378 - In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish

P362 + P364 - Take off contaminated clothing and wash it before reuse

#### Storage

P403 + P235 - Store in a well-ventilated place. Keep cool

#### **Disposal**

P501 - Dispose of contents/ container to an approved waste disposal plant

#### **Physical and Chemical Hazards**

Highly flammable. Vapors may cause flash fire or explosion.

#### **Health Hazards**

Corrosive. Causes skin and eye burns.

#### **Environmental hazards**

Contains no substances known to be hazardous to the environment or not degradable in waste water treatment plants.

This product does not contain any known or suspected endocrine disruptors.

#### **SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

Component	CAS No	Weight %		
N,N-Dimethylhexylamine	4385-04-0	>95		

## **SECTION 4. FIRST AID MEASURES**

## **General Advice**

Immediate medical attention is required. Show this safety data sheet to the doctor in attendance.

#### **Eye Contact**

Immediate medical attention is required. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing.

#### **Skin Contact**

Wash off immediately with plenty of water for at least 15 minutes. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Call a physician immediately.

#### Inhalation

Remove from exposure, lie down. If breathing is difficult, give oxygen. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Call a physician immediately.

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#### N,N-Dimethylhexylamine

#### Ingestion

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Call a physician immediately. Clean mouth with water.

#### Most important symptoms and effects

Difficulty in breathing. Causes burns by all exposure routes. . Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting: 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

#### Self-Protection of the First Aider

Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination.

#### **Notes to Physician**

Treat symptomatically.

#### **SECTION 5. FIRE-FIGHTING MEASURES**

#### **Suitable Extinguishing Media**

CO<sub>2</sub>, dry chemical, dry sand, alcohol-resistant foam. Water mist may be used to cool closed containers.

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

No information available.

#### **Specific Hazards Arising from the Chemical**

Thermal decomposition can lead to release of irritating gases and vapors. The product causes burns of eyes, skin and mucous membranes. Flammable. Containers may explode when heated. Vapors may form explosive mixtures with air. Vapors may travel to source of ignition and flash back.

#### **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. Thermal decomposition can lead to release of irritating gases and vapors.

#### **SECTION 6. ACCIDENTAL RELEASE MEASURES**

#### **Personal Precautions**

Use personal protective equipment as required. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Ensure adequate ventilation. Remove all sources of ignition. Take precautionary measures against static discharges.

#### **Environmental Precautions**

Should not be released into the environment. See Section 12 for additional Ecological Information.

#### Methods for Containment and Clean Up

Keep in suitable, closed containers for disposal. Soak up with inert absorbent material. Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment.

Refer to protective measures listed in Sections 8 and 13.

# **SECTION 7. HANDLING AND STORAGE**

#### Handling

Do not breathe mist/vapors/spray. Do not get in eyes, on skin, or on clothing. Use only under a chemical fume hood. Wear personal protective equipment/face protection. Do not ingest. If swallowed then seek immediate medical assistance. Keep away from open flames, hot surfaces and sources of ignition. Use only non-sparking tools. Take precautionary measures against static discharges.

#### Storage

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#### N,N-Dimethylhexylamine

Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat, sparks and flame. Flammables area. Corrosives area.

# Specific Use(s)

Use in laboratories

#### **SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

#### **Control Parameters**

# **Monitoring methods**

BS EN 14042:2003 Title Identifier: Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents. MDHS70 General methods for sampling airborne gases and vapours MDHS 88 Volatile organic compounds in air. Laboratory method using diffusive samplers, solvent desorption and gas chromatography MDHS 96 Volatile organic compounds in air - Laboratory method using pumped solid sorbent tubes, solvent desorption and gas chromatography

#### **Exposure Controls**

#### **Engineering Measures**

Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location. Use explosion-proof electrical/ventilating/lighting equipment. Wherever possible, engineering control measures such as the isolation or enclosure of the process, the introduction of process or equipment changes to minimise release or contact, and the use of properly designed ventilation systems, should be adopted to control hazardous materials at source.

#### Personal protective equipment

**Eye Protection** Goggles (European standard - EN 166)

Hand Protection Protective gloves

Glove material	Breakthrough time	Glove thickness	EU standard	Glove comments
Nitrile rubber	See manufacturers	-	EN 374	(minimum requirement)
Neoprene	recommendations			
Natural rubber				
PVC				

Inspect gloves before use.

Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. (Refer to manufacturer/supplier for information)

Ensure gloves are suitable for the task: Chemical compatability, Dexterity, Operational conditions, User susceptibility, e.g. sensitisation effects, also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion.

Remove gloves with care avoiding skin contamination.

Skin and body protection	Long sleeved clothing
Respiratory Protection	When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.  To protect the wearer, respiratory protective equipment must be the correct fit and be used and maintained properly
Large scale/emergency use	Use a NIOSH/MSHA or European Standard EN 136 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced <b>Recommended Filter type:</b> Organic gases and vapours filter Type A Brown conforming to EN14387
Small scale/Laboratory use	Use a NIOSH/MSHA or European Standard EN 149:2001 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.  Recommended half mask:- Valve filtering: EN405; or; Half mask: EN140; plus filter, EN 141  When RPE is used a face piece Fit Test should be conducted

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#### N,N-Dimethylhexylamine

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

**Environmental exposure controls** No information available.

#### **SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

Liquid

explosive air/vapour mixtures possible

Appearance Colorless Physical State Liquid

Odor
Odor Threshold
PH
No data available
Not applicable
No data available
Not applicable
No data available

Melting Point/Range No data available Softening Point No data available

**Boiling Point/Range** 146 - 150 °C / 294.8 - 302 °F @ 760 mmHg

Flash Point 33 °C / 91.4 °F Method - No information available

Evaporation Rate No data available Flammability (solid,gas) Not applicable

Explosion Limits No data available

Vapor Pressure No data available

Vapor Density 4.46 (Air = 1.0)

Specific Gravity / Density 0.744

Bulk Density Not applicable Liquid

Water Solubility No information available Solubility in other solvents No information available

Partition Coefficient (n-octanol/water)

Autoignition Temperature
Decomposition Temperature
Viscosity

No data available
No data available
No data available

Explosive Properties

Oxidizing Properties No information available

Molecular Formula C8 H19 N Molecular Weight 129.25

# **SECTION 10. STABILITY AND REACTIVITY**

**Stability** Moisture sensitive.

Hazardous ReactionsNone under normal processing.Hazardous PolymerizationNo information available.

Conditions to Avoid Incompatible products. Excess heat. Keep away from open flames, hot surfaces and

sources of ignition. Exposure to moist air or water.

Materials to avoid Strong oxidizing agents. Strong acids.

**Hazardous Decomposition Products** Nitrogen oxides (NOx). Carbon monoxide (CO). Carbon dioxide (CO<sub>2</sub>). Thermal decomposition can lead to release of irritating gases and vapors.

# **SECTION 11. TOXICOLOGICAL INFORMATION**

Product Information No acute toxicity information is available for this product

(a) acute toxicity;

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#### N,N-Dimethylhexylamine

(b) skin corrosion/irritation; Category 1 B

(c) serious eye damage/irritation; Category 1

(d) respiratory or skin sensitization;

Respiratory No data available Skin No data available

(e) germ cell mutagenicity; No data available

No data available (f) carcinogenicity;

There are no known carcinogenic chemicals in this product

(g) reproductive toxicity; No data available

(h) STOT-single exposure; No data available

No data available (i) STOT-repeated exposure;

**Target Organs** No information available.

No data available (j) aspiration hazard;

**Other Adverse Effects** The toxicological properties have not been fully investigated.

delayed

Symptoms / effects,both acute and Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting: 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

#### **SECTION 12. ECOLOGICAL INFORMATION**

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

No information available Persistence and Degradability

**Bioaccumulative Potential** No information available

Mobility in soil No information available

**Endocrine Disruptor Information Persistent Organic Pollutant Ozone Depletion Potential** 

This product does not contain any known or suspected endocrine disruptors

This product does not contain any known or suspected substance This product does not contain any known or suspected substance

# **SECTION 13. DISPOSAL CONSIDERATIONS**

Waste from Residues/Unused Waste is classified as hazardous. Dispose of in accordance with the European Directives

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#### N,N-Dimethylhexylamine

Products on waste and hazardous waste. Dispose of in accordance with local regulations.

Contaminated Packaging Dispose of this container to hazardous or special waste collection point. Empty containers

retain product residue, (liquid and/or vapor), and can be dangerous. Keep product and

empty container away from heat and sources of ignition.

Other Information Waste codes should be assigned by the user based on the application for which the product

was used. Do not flush to sewer. Can be landfilled or incinerated, when in compliance with local regulations. Do not empty into drains. Large amounts will affect pH and harm aquatic

organisms.

#### **SECTION 14. TRANSPORT INFORMATION**

#### **Road and Rail Transport**

UN-No UN2734

Proper Shipping Name AMINES, LIQUID, CORROSIVE, FLAMMABLE, N.O.S.

Hazard Class 8 Subsidiary Hazard Class 3 Packing Group II

IMDG/IMO

UN-No UN2734

Proper Shipping Name AMINES, LIQUID, CORROSIVE, FLAMMABLE, N.O.S.

Hazard Class 8
Subsidiary Hazard Class 3
Packing Group ||

IATA

UN-No UN2734

**Proper Shipping Name** AMINES, LIQUID, CORROSIVE, FLAMMABLE, N.O.S.\*

Hazard Class 8
Subsidiary Hazard Class 3
Packing Group || |

Special Precautions for User No special precautions required

#### **SECTION 15. REGULATORY INFORMATION**

#### **International Inventories**

X = listed, China (IECSC), Europe (EINECS/ELINCS/NLP), U.S.A. (TSCA), Canada (DSL/NDSL), Philippines (PICCS), Japan (ISHL), Australia (AICS), Korea (KECL).

Component	The	List of	TCSI	IECSC	EINECS	TSCA	DSL	PICCS	<b>ENCS</b>	ISHL	AICS	KECL
	Inventory of Hazardous Chemicals (2015 Edition)											
N,N-Dimethylhexylami	-	-	X	-	224-491-8	-	-	-	-		-	KE-11488
l ne						l						

#### **National Regulations**

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#### **SECTION 16. OTHER INFORMATION**

**Prepared By** Health, Safety and Environmental Department

**Creation Date** 08-Feb-2013 **Revision Date** 29-Apr-2024

New emergency telephone response service provider. **Revision Summary** 

**Training Advice** 

Chemical hazard awareness training, incorporating labelling, Safety Data Sheets (SDS), Personal Protective Equipment (PPE) and hygiene.

Use of personal protective equipment, covering appropriate selection, compatibility, breakthrough thresholds, care, maintenance, fit and standards.

First aid for chemical exposure, including the use of eye wash and safety showers.

# Legend

Inventory

Substances List

**CAS** - Chemical Abstracts Service

EINECS/ELINCS - European Inventory of Existing Commercial Chemical DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances/EU List of Notified Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

IECSC - Chinese Inventory of Existing Chemical Substances **KECL** - Korean Existing and Evaluated Chemical Substances

WEL - Workplace Exposure Limit

ACGIH - American Conference of Governmental Industrial Hygienists

**DNEL** - Derived No Effect Level

RPE - Respiratory Protective Equipment LC50 - Lethal Concentration 50%

NOEC - No Observed Effect Concentration PBT - Persistent, Bioaccumulative, Toxic

ICAO/IATA - International Civil Aviation Organization/International Air **Transport Association** 

ADR - European Agreement Concerning the International Carriage of Dangerous Goods by Road

**OECD** - Organisation for Economic Co-operation and Development **BCF** - Bioconcentration factor

Ships ATE - Acute Toxicity Estimate

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

IMO/IMDG - International Maritime Organization/International Maritime

MARPOL - International Convention for the Prevention of Pollution from

**ENCS** - Japanese Existing and New Chemical Substances

AICS - Australian Inventory of Chemical Substances

IARC - International Agency for Research on Cancer

NZIoC - New Zealand Inventory of Chemicals

PNEC - Predicted No Effect Concentration

POW - Partition coefficient Octanol:Water

vPvB - very Persistent, very Bioaccumulative

EC50 - Effective Concentration 50%

VOC - (Volatile Organic Compound)

TWA - Time Weighted Average

LD50 - Lethal Dose 50%

Dangerous Goods Code

Key literature references and sources for data

https://echa.europa.eu/information-on-chemicals

Suppliers safety data sheet, Chemadvisor - LOLI, Merck index, RTECS

#### **Disclaimer**

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**End of Safety Data Sheet**