

TCI AMERICA SAFETY DATA SHEET

Revision number: 1 **Revision date: 07/06/2018**

1. IDENTIFICATION

Product name: N,N-Diethylformamide

Product code: D0506

For laboratory research purposes. Product use: Restrictions on use: Not for drug or household use.

Company: TCI America 9211 N. Harborgate Street Portland, OR 97203 U.S.A.

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Fax:

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e-mail:

sales-US@TCIchemicals.com www.TCIchemicals.com

Emergency telephone number:

Chemical Emergencies:

TCI America (8:00am - 5:00pm) PST

+1-503-286-7624

Transportation Emergencies:

Chemtrec 24-Hour

+1-800-424-9300 (U.S.A.)

+1-703-527-3887 (International) Responsible department:

TCI America

Environmental Health Safety and Security

+1-503-286-7624

2. HAZARD(S) IDENTIFICATION

OSHA Haz Com: CFR 1910.1200:

WHMIS 2015:

Skin Corrosion/Irritation [Category 2] Eye Damage/Irritation [Category 2A] Flammable Liquids [Category 3]

Signal word: Warning!

Hazard Statement(s): Flammable liquid and vapor

Causes skin irritation Causes serious eye irritation

Pictogram(s) or Symbol(s):



Precautionary Statement(s):

[Prevention]

[Response]

Keep away from heat, sparks, open flames and hot surfaces. - No smoking. Keep container tightly closed. Ground and bond container and receiving equipment. Use explosion-proof electrical, ventilating and lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Wash hands and face thoroughly after handling. Wear protective gloves, eye protection. If on skin: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice or attention. Take off contaminated clothing and wash it before reuse. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation

persists: Get medical advice or attention.

[Storage] Store in a well-ventilated place. Keep cool. [Disposal]

Dispose of contents and container in accordance with local, regional, national regulations (e.g. US: 40

CFR Part 261, EU:91/156/EEC, JP: Waste Disposal and Cleaning Act, etc.).

Hazards not otherwise classified:

[HNOC]

None.

N,N-Diethylformamide TCI AMERICA Page 2 of 5

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance/mixture: Substance

Components: N,N-Diethylformamide

 Percent:
 >99.0%(GC)

 CAS RN:
 617-84-5

 Molecular Weight:
 101.15

 Chemical Formula:
 C₅H₁1NO

Synonyms: Formyldiethylamine

4. FIRST-AID MEASURES

Description of first aid measures

Inhalation: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical

advice/attention if you feel unwell.

Skin contact: Remove/Take off immediately all contaminated clothing. Gently wash with plenty of soap and water. If

skin irritation or rash occurs: Get medical advice/attention.

Eye contact: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing. If eye irritation persists: Get medical advice/attention.

Ingestion: Get medical advice/attention if you feel unwell. Rinse mouth.

Symptoms/effects:

Acute: Redness.

Delayed: No data available

Indication of any immediate medical attention:

Not available.

Notes to physician: No data available

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media: Dry chemical, foam, water in large amounts, carbon dioxide.

Specific hazards arising from the

chemical:

Hazardous combustion products:

Other specific hazards:

These products include: Carbon oxides Nitrogen oxides Closed containers may explode from heat of a fire.

Advice for firefighters: Wear self-contained breathing apparatus if possible.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:

Use extra personal protective equipment (self-contained breathing apparatus). Keep people away from and upwind of spill/leak. Ensure adequate ventilation. Entry to non-involved personnel should be controlled around the leakage area by roping off, etc.

Take care as it may decompose upon combustion or in high temperatures to generate poisonous fume.

Environmental precautions:

Methods and materials for containment

and cleaning up:

Prevent product from entering drains.

Absorb spilled material in dry sand or inert absorbent before recovering it into an airtight container. In case of large amount of spillage, contain a spill by bunding. Adhered or collected material should be

promptly disposed of, in accordance with appropriate laws and regulations.

Prevention of secondary hazards: Remove all source

Remove all sources of ignition. Fire-extinguishing devices should be prepared in case of a fire. Use spark-proof tools and explosion-proof equipment.

7. HANDLING AND STORAGE

Precautions for safe handling: Handling is performed in a well ventilated place. Wear suitable protective equipment. Prevent

generation of vapour or mist. Keep away from heat/sparks/open flame/hot surfaces. -No smoking. Take measures to prevent the build up of electrostatic charge. Use explosion-proof equipment. Wash hands and face thoroughly after handling.

Use a closed system if possible. Use a ventilation, local exhaust if vapour or aerosol will be generated. Avoid contact with skin, eyes and clothing.

Conditions for safe storage, including any incompatibilities

Storage conditions: Keep container tightly closed. Store in a cool, dark and well-ventilated place.

Store under inert gas.

Store away from incompatible materials such as oxidizing agents.

Air-sensitive Comply with laws.

Packaging material:

N,N-Diethylformamide TCI AMERICA Page 3 of 5

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Appropriate engineering controls: Follow safe industrial engineering/laboratory practices when handling any chemical. Install a closed

system or local exhaust. Also install safety shower and eye bath.

Personal protective equipment

Respiratory protection: Vapor respirator. Follow local and national regulations.

Hand protection: Protective gloves.

Eye protection: Safety glasses. A face-shield, if the situation requires. **Skin and body protection:** Protective clothing. Protective boots, if the situation requires.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state (20°C): Liquid Form: Clear

Colour:Colorless - Pale yellowOdour:No data availableOdor threshold:No data availableOdour threshold:No data available

Melting point/freezing point: No data available pH: No data available 177°C (351°F) Vapour pressure: Boiling point/range: No data available. **Decomposition temperature:** No data available Vapour density: No data available Relative density: Dynamic Viscosity: No data available 0.91

Kinematic viscosity: 0.91

No data available

Log Pow:No data availableEvaporation rate(ButylNo data available

Acetate=1):

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Flash point: 60°C (140°F) Autoignition temperature: No data available

Flammability(solid, gas): No data available Flammability or explosive limits:
Lower: No data available

Upper: No data available

Solubility(ies):

[Water] Soluble

[Other solvents]

Soluble: Ether, Ethanol

10. STABILITY AND REACTIVITY

Reactivity: No data available

Chemical stability: Stable under proper conditions.

Possibility of hazardous reactions:
Conditions to avoid:

No special reactivity has been reported.
Spark, Open flame, Static discharge

Incompatible materials: Oxidizing agents

Hazardous decomposition products: Carbon dioxide, Carbon monoxide, Nitrogen oxides (NOx)

N,N-Diethylformamide TCI AMERICA Page 4 of 5

11. TOXICOLOGICAL INFORMATION

RTECS Number: LQ1925000

Acute Toxicity:

ipr-rat LD50:1740 mg/kg

Skin corrosion/irritation:

No data available

Serious eye damage/irritation:

No data available

Respiratory or skin sensitization:

No data available

Germ cell mutagenicity:

No data available

Carcinogenicity: No data available

IARC: No data available NTP: No data available OSHA: No data available

Reproductive toxicity:

No data available

Target organ(s): No data available

12. ECOLOGICAL INFORMATION

Ecotoxicity:

Fish: No data available
Crustacea: No data available
Algae: No data available

Persistence / degradability:

Bioaccumulative potential(BCF):

Mobility in soil

No data available No data available

Log Pow: 0.05

Soil adsorption (Koc): No data available Henry's Law (PaM ³/mol): No data available

13. DISPOSAL CONSIDERATIONS

Disposal of product: Recycle to process if possible. It is the generator's responsibility to comply with Federal, State and

Local rules and regulations. You may be able to dissolve or mix material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber system. This section is intended to provide assistance but does not replace these laws, nor does compliance in accordance with this section ensure regulatory compliance according to the law. US EPA guidelines for Identification and Listing of Hazardous Waste are listed in 40 CFR Parts 261. The product should not

be allowed to enter the environment, drains, water ways, or the soil.

Disposal of container: Dispose of as unused product. Do not re-use empty containers.

Other considerations: Observe all federal, state and local regulations when disposing of the substance.

N,N-Diethylformamide TCI AMERICA Page 5 of 5

14. TRANSPORT INFORMATION

DOT (US)

UN number: Proper Shipping Name: Class or Division: Packing Group:

UN1993 Flammable liquids, n.o.s 3 Flammable liquid

<u>IATA</u>

UN number: Proper Shipping Name: Class or Division: Packing Group:

UN1993 Flammable liquid, n.o.s 3 Flammable liquid II

<u>IMDG</u>

UN UN1993 Proper Shipping Name: Class or Division: Packing Group:

numb Flammable liquid, n.o.s 3 Flammable liquid III er:

EmS number: F-E, S-E

15. REGULATORY INFORMATION

Toxic Substance Control Act (TSCA 8b.):

This product is ON the EPA Toxic Substances Control Act (TSCA) inventory.

US Federal Regulations

CERCLA Hazardous substance and Reportable Quantity:

SARA 313: Not Listed SARA 302: Not Listed

State Regulations
State Right-to-Know

MassachusettsNot ListedNew JerseyNot ListedPennsylvaniaNot ListedCalifornia Proposition 65:Not Listed

Other Information

NFPA Rating:HMIS Classification:Health:2Health:2Flammability:2Flammability:2Instability:0Physical:0

International Inventories

 Canada: NDSL
 On NDSL

 EC-No:
 210-533-2

16. OTHER INFORMATION

Revision date: 07/06/2018 Revision number: 1

TCI chemicals are for research purposes only and are NOT intended for use as drugs, food additives, households, or pesticides. The information herein is believed to be correct, but does not claim to be all inclusive and should be used only as a guide. Neither the above named supplier nor any of its affiliates or subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All chemical reagents must be handled with the recognition that their chemical, physiological, toxicological, and hazardous properties have not been fully investigated or determined. All chemical reagents should be handled only by individuals who are familiar with their potential hazards and who have been fully trained in proper safety, laboratory, and chemical handling procedures. Although certain hazards are described herein, we can not guarantee that these are the only hazards which exist. Our SDS are based only on data available at the time of shipping and are subject to change without notice as new information is obtained. Avoid long storage periods since the product is subject to degradation with age and may become more dangerous or hazardous. It is the responsibility of the user to request updated SDS for products that are stored for extended periods. Disposal of unused product must be undertaken by qualified personnel who are knowledgeable in all applicable regulations and follow all pertinent safety precautions including the use of appropriate protective equipment (e.g. protective goggles, protective clothing, breathing equipment, face mask, fume hood). For proper handling and disposal, always comply with federal, state and local regulations.