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1 Identification

Product identifier

Product name: N-Ethyldiisopropylamine

Stock number: A11801, L04310 CAS Number: 7087-68-5

EC number: 230-392-0

Details of the supplier of the safety data sheet Manufacturer/Supplier:

Manufacturer/Supplier:
Alfa Aesar
Thermo Fisher Scientific Chemicals, Inc.
30 Bond Street
Ward Hill, MA 01835-8099
Tel: 800-343-0660
Fax: 800-322-4757
Email: tech@alfa.com
www.alfa.com
Information Department: Health, Safety and Environmental Department
Fmergency telephone number:

Emergency telephone number: During normal business hours (Monday-Friday, 8am-7pm EST), call (800) 343-0660. After normal business hours, call Carechem 24 at (866) 928-0789.

2 Hazard(s) identification

Classification of the substance or mixture in accordance with 29 CFR 1910 (OSHA HCS)



GHS02 Flame

Flam. Liq. 2 H225 Highly flammable liquid and vapor.



GHS06 Skull and crossbones

Acute Tox. 3 H331 Toxic if inhaled.



GHS05 Corrosion

Eye Dam. 1 H318 Causes serious eye damage.



GHS07

Acute Tox. 4 H302 Harmful if swallowed.

Hazards not otherwise classified No information known.

Label elements

GHS label elements The product is classified and labeled in accordance with 29 CFR 1910 (OSHA HCS) Hazard pictograms







GHS02 GHS05 GHS06

Signal word Danger

Hazard statements
H225 Highly flammable liquid and vapor.
H302 Harmful if swallowed.

H331 Toxic if inhaled. H318 Causes serious eye damage.

H318 Causes serious eye damage.

Precautionary statements
P210
Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P261
Avoid breathing dust/fume/gas/mist/vapors/spray
P303+P361+P353 | fo n skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P305+P351+P338 | fi n eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P405
Store locked up.
Dispose of contents/container in accordance with local/regional/national/international regulations.

WHMIS classification.

WHMIS classification

Winnis classification.
B2 - Flammable liquid
D1B - Toxic material causing immediate and serious toxic effects
D2B - Toxic material causing other toxic effects





Classification system HMIS ratings (scale 0-4) (Hazardous Materials Identification System)



Health (acute effects) = 4
Flammability = 3
Physical Hazard = 1

Other hazards Results of PBT and vPvB assessment PBT: Not applicable.

vPvB: Not applicable

USA

(Contd. of page 1)

3 Composition/information on ingredients

Chemical characterization: Substances

Chemical characterization: Subst CAS# Description: 7087-68-5 N-Ethyldiisopropylamine Concentration: ≤100% Identification number(s): EC number: 230-392-0

4 First-aid measures

Description of first aid measures

After inhalation
Supply fresh air. If required, provide artificial respiration. Keep patient warm.
Seek immediate medical advice.

After skin contact Immediately wash with water and soap and rinse thoroughly. Seek immediate medical advice.

After eye contact Rinse opened eye for several minutes under running water. Then consult a doctor.

After swallowing Seek medical treatment.

Information for doctor

Most important symptoms and effects, both acute and delayed Harmful if swallowed. Toxic if inhaled.

Causes serious eye damage.

Indication of any immediate medical attention and special treatment needed No further relevant information available.

5 Fire-fighting measures

Extinguishing media

Extinguishing media
Suitable extinguishing agents Carbon dioxide, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
Special hazards arising from the substance or mixture
If this product is involved in a fire, the following can be released:
Carbon monoxide and carbon dioxide
Nitrogen oxides (NOx)
Advice for firefighters
Protective equipment:
Wear self-contained respirator.
Wear fully protective impervious suit

Wear fully protective impervious suit.

6 Accidental release measures

Personal precautions, protective equipment and emergency procedures Wear protective equipment. Keep unprotected persons away. Ensure adequate ventilation

Ensure adequate ventilation
Keep away from ignition sources
Environmental precautions: Do not allow product to reach sewage system or any water course.

Methods and material for containment and cleaning up:
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose of contaminated material as waste according to section 13.
Ensure adequate ventilation.
Prevention of secondary hazards: Keep away from ignition sources.
Reference to other sections
See Section 7 for information on safe handling
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.
Protective Action Criteria for Chemicals

PAC-1: 1.8 ppm PAC-2: 19 ppm PAC-3: 120 ppm

7 Handling and storage

Handling
Precautions for safe handling
Keep container tightly sealed.
Store in cool, dry place in tightly closed containers.
Ensure good ventilation at the workplace.
Information about protection against explosions and fires:
Protect against electrostatic charges.
Fumes can combine with air to form an explosive mixture.
Keep imition sources away.

Keep ignition sources away.

Conditions for safe storage, including any incompatibilities Storage

Requirements to be met by storerooms and receptacles: Store in a cool location. Information about storage in one common storage facility:

Do not store together with acids.

Store away from oxidizing agents.

Further information about storage conditions: Keep container tightly sealed. Store in cool, dry conditions in well sealed containers.

Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

Additional information about design of technical systems:
Properly operating chemical fume hood designed for hazardous chemicals and having an average face velocity of at least 100 feet per minute.

Components with limit values that require monitoring at the workplace:
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

Additional information: No data

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Exposure controls
Personal protective equipment
General protective and hygienic measures
The usual precautionary measures for handling chemicals should be followed.
Keep away from foodstuffs, beverages and feed.
Remove all soiled and contaminated clothing immediately.
Wash hands before breaks and at the end of work.
Do not inhale dust / smoke / mist.
Avoid contact with the eyes.
Maintain an ergonomically appropriate working environment.
Breathing equipment: Use suitable respirator when high concentrations are present.
Recommended filter device for short term use:
Use a respirator with multi-purpose combination (US) or type ABEK (EN 14387) as a backup to engineering controls. Risk assessment should be performed to determine if air-purifying respirators are appropriate. Only use equipment tested and approved under appropriate government standards such as NIOSH (USA) or Protection of hands:

Protection of hands:

Protection of hands:
Impervious gloves
Check protective gloves prior to each use for their proper condition.
The selection of suitable gloves not only depends on the material, but also on quality. Quality will vary from manufacturer to manufacturer.
Material of gloves Nitrile rubber, NBR
Penetration time of glove material (in minutes) 480
Glove thickness: 0.11 mm
Eye protection:
Tightly sealed goggles
Safety glasses with side shields / NIOSH (US) or EN 166(EU)
Body protection: Protective work clothing.

9 Physical and chemical properties

Information on basic physical and chemical properties

Appearance: Form:

Odor: Odor threshold: Liquid Not determined Not determined.

pH-value:

Not determined.

-46 °C (-51 °F) 126-127 °C (259-261 °F) Not determined

Change in condition Melting point/Melting range: Boiling point/Boiling range: Sublimation temperature / start:

Flash point: Flammability (solid, gaseous)

8 °C (46 °F) Not determined

Ignition temperature: Decomposition temperature:

Not determined Not determined

Auto igniting:

Product is not explosive. However, formation of explosive air/vapor mixtures is possible.

Danger of explosion: Explosion limits:

Lower: Upper:

Not determined Not determined

Vapor pressure: Density at 20 °C (68 °F): Relative density

Not determined 0.747 g/cm³ (6.234 lbs/gal) Not determined.

Vapor density

Not determined

Evaporation rate Solubility in / Miscibility with

Not determined.

Water

Not determined Partition coefficient (n-octanol/water): Not determined.

Viscosity: dynamic:

Not determined.

kinematic: Other information

Not determined. No further relevant information available.

10 Stability and reactivity

Reactivity No information known.

Chemical stability Stable under recommended storage conditions.

Thermal decomposition / conditions to be avoided: Decomposition will not occur if used and stored according to specifications.

Possibility of hazardous reactions Reacts with strong oxidizing agents

Conditions to avoid No further relevant information available.

Incompatible materials:

Oxidizing agents
Hazardous decomposition products:

Carbon monoxide and carbon dioxide Nitrogen oxides

11 Toxicological information

Information on toxicological effects

Acute toxicity: Harmful if swallowed. Toxic if inhaled.

LD/LC50 values that are relevant for classification:

Inhalative | LC50/4H | 2.63 mg/l/4H (rat)

Skin irritation or corrosion: May cause irritation
Eye irritation or corrosion: Causes serious eye damage.
Sensitization: No sensitizing effects known.
Germ cell mutagenicity: No effects known.
Carcinogenicity: No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH.

(Contd. on page 4)

(Contd. of page 3)

Reproductive toxicity: No effects known.
Specific target organ system toxicity - repeated exposure: No effects known.
Specific target organ system toxicity - single exposure: No effects known.
Aspiration hazard: No effects known.
Subacute to chronic toxicity: No effects known.
Additional toxicological information: To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.

12 Ecological information

Toxicity
Aquatic toxicity: No further relevant information available.
Persistence and degradability No further relevant information available.
Bioaccumulative potential No further relevant information available.
Mobility in soil No further relevant information available.
Ecotoxical effects:

Remark: Harmful to aquatic organisms
Additional ecological information:

Additional ecological information:
General notes:
Do not allow product to reach ground water, water course or sewage system.
Danger to drinking water if even small quantities leak into the ground.
May cause long lasting harmful effects to aquatic life.
Avoid transfer into the environment.
Harmful to aquatic organisms
Results of PBT and vPvB assessment
PBT: Not applicable.
vPvB: Not applicable.
Other adverse effects No further relevant information available.

13 Disposal considerations

Waste treatment methods

Recommendation Consult state, local or national regulations to ensure proper disposal.

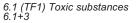
Uncleaned packagings:
Recommendation: Disposal must be made according to official regulations.

| 14 Transport information | |
|---|---|
| UN-Number DOT, IMDG, IATA | UN3384 |
| UN proper shipping name DOT ADR IMDG IATA | Toxic by inhalation liquid, flammable, n.o.s. (N-Ethyldiisopropylamine) 3384 Toxic by inhalation liquid, flammable, n.o.s. (N-Ethyldiisopropylamine) TOXIC BY INHALATION LIQUID, FLAMMABLE, N.O.S. (N-Ethyldiisopropylamine) TOXIC BY INHALATION LIQUID, FLAMMABLE, N.O.S. |
| Transport hazard class(es) | |
| DOT | |
| | |
| Class Label | 6.1 Toxic substances 6.1. 3 |

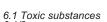




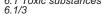




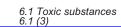














Packing group DOT, ADR, IMDG, IATA Environmental hazards:

Not applicable. Warning: Toxic substances F-E,S-D D

Special precautions for user EMS Number: Stowage Category Stowage Code

SW2 C<u>lear of living quarters.</u>

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code Not applicable

Transport/Additional information:

DOT

Marine Pollutant (DOT): Remarks:

This material is poisonous by inhalation in Hazard Zone A.

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UN "Model Regulation":

UN 3384 TOXIC BY INHALATION LIQUID, FLAMMABLE, N.O.S. (N-ETHYLDIISOPROPYLAMINE), 6.1 (3), I

15 Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture GHS label elements The product is classified and labeled in accordance with 29 CFR 1910 (OSHA HCS) Hazard pictograms







GHS02 GHS05 GHS06

Signal word Danger

Hazard statements

Hazard statements
H225 Highly flammable liquid and vapor.
H302 Harmful if swallowed.
H331 Toxic if inhaled.
H318 Causes serious eye damage.

Precautionary statements

Precautionary statements

Keep away from heat/sparks/open flames/hot surfaces. No smoking.

P261 Keep away from heat/sparks/open flames/hot surfaces. No smoking.

P261 Avoid breathing dust/fume/gas/mist/vapors/spray

P303+P361+P353 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P405 Store locked up.

Dispose of contents/container in accordance with local/regional/national/international regulations.

National regulations

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

National regulations

All components of this product are listed in the U.S. Environmental Protection Agency Toxic Substances Control Act Chemical substance Inventory.

All components of this product are listed on the Canadian Domestic Substances List (DSL).

SARA Section 313 (specific toxic chemical listings) Substance is not listed.

California Proposition 65

Prop 65 - Chemicals known to cause cancer Substance is not listed.

Prop 65 - Developmental toxicity Substance is not listed.

Prop 65 - Developmental toxicity, female Substance is not listed.

Prop 65 - Developmental toxicity, male Substance is not listed.

Information about limitation of use: For use only by technically qualified individuals.

Other regulations, limitations and prohibitive regulations

Substance of Very High Concern (SVHC) according to the REACH Regulations (EC) No. 1907/2006. Substance is not listed.

The conditions of restrictions according to Article 67 and Annex XVII of the Regulation (EC) No 1907/2006 (REACH) for the manufacturing, placing on the market and use must be observed.

Substance is not listed.

Substance is not listed.

Annex XIV of the REACH Regulations (requiring Authorisation for use) Substance is not listed.

Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

Employers should use this information only as a supplement to other information gathered by them, and should make independent judgement of suitability of this information to ensure proper use and protect the health and safety of employees. This information is furnished without warranty, and any use of the product not in conformance with this Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user. Conformance with this Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.

Department issuing SDS: Global Marketing Department
Date of preparation/Revision: Print date, revision date and version number are in the header of each page.

Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement conceming the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
IATA: International Air Transport Association
EINECS: European Inventory of Existing Commercial Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
HMIS: Hazardous Materials Information System (USA)
WHMIS: Workplace Hazardous Materials Information System (Canada)
LC50: Lethal dose, 50 percent
LD50: Lethal dose, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
SVHC: Substances of Very High Concern
vPVB: very Persistent and very Bioaccumulative
ACGIH: American Conference of Governmental Industrial Hygienists (USA)
OSHA: Occupational Safety and Health Administration (USA)
NTP: National Toxicology Program (USA)
IARC: International Agency for Research on Cancer
EPA: Environmental Protection Agency (USA)
Flam. Liq. 2: Flammable liquids — Category 2
Acute Tox. 4: Acute toxicity — Category 4
Acute Tox. 3: Acute toxicity — Category 9: International Agency (USA)
Eye Dam. 1: Serious eye damage/eye irritation — Category 1