

# Chemical Safety Data Sheet MSDS / SDS

## N-ETHYLFORMAMIDE

Revision Date:2024-05-25 Revision Number:1

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### SECTION 1: Identification of the substance/mixture

#### Product identifier

Product name : N-ETHYLFORMAMIDE  
CBnumber : CB7758058  
CAS : 627-45-2  
EINECS Number : 211-001-2  
Synonyms : N-ETHYLFORMAMIDE,ethylformamide

#### Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses : For R&D use only. Not for medicinal, household or other use.  
Uses advised against : none

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### SECTION 2: Hazards identification

#### GHS Label elements, including precautionary statements

Symbol(GHS)



Signal word

Warning

#### Precautionary statements

P210 Keep away from heat/sparks/open flames/hot surfaces. — No smoking.  
P264 Wash hands thoroughly after handling.  
P264 Wash skin thoroughly after handling.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P370+P378 In case of fire: Use ... for extinction.  
P403+P235 Store in a well-ventilated place. Keep cool.  
P501 Dispose of contents/container to.....

#### Hazard statements

H227 Combustible liquid  
H315 Causes skin irritation

## SECTION 3: Composition/information on ingredients

### Substance

Product name	: N-ETHYLFORMAMIDE
Synonyms	: N-ETHYLFORMAMIDE,ethylformamide
CAS	: 627-45-2
EC number	: 211-001-2
MF	: C3H7NO
MW	: 73.09

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## SECTION 4: First aid measures

### Description of first aid measures

#### If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration.

#### In case of skin contact

Wash off with soap and plenty of water.

#### In case of eye contact

Flush eyes with water as a precaution.

#### If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water.

### Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

### Indication of any immediate medical attention and special treatment needed

No data available

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## SECTION 5: Firefighting measures

### Extinguishing media

#### Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

#### Special hazards arising from the substance or mixture

Carbon oxides, Nitrogen oxides (NO<sub>x</sub>)

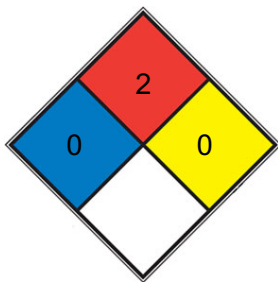
#### Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

## Further information

No data available

## NFPA 704



<input type="checkbox"/> HEALTH 0	Poses no health hazard, no precautions necessary and would offer no hazard beyond that of ordinary combustible materials
<input type="checkbox"/> FIRE 2	Must be moderately heated or exposed to relatively high ambient temperature before ignition can occur and multiple finely divided suspended solids that do not require heating before ignition can occur. Flash point between 37.8 and 93.3 °C (100 and 200 °F). (e.g. diesel fuel, <a href="#">sulfur</a> )
<input type="checkbox"/> REACT 0	Normally stable, even under fire exposure conditions, and is not reactive with water (e.g. helium, <a href="#">N<sub>2</sub></a> )
<input type="checkbox"/> SPEC.	
<input type="checkbox"/> HAZ.	

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## SECTION 6: Accidental release measures

### Personal precautions, protective equipment and emergency procedures

Avoid breathing vapours, mist or gas. For personal protection see section 8.

### Environmental precautions

No special environmental precautions required.

### Methods and materials for containment and cleaning up

Keep in suitable, closed containers for disposal.

### Reference to other sections

For disposal see section 13.

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## SECTION 7: Handling and storage

### Precautions for safe handling

For precautions see section 2.2.

### Conditions for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place.

## Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

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## SECTION 8: Exposure controls/personal protection

### control parameter

#### Hazard composition and occupational exposure limits

Does not contain substances with occupational exposure limits.

### Exposure controls

#### Appropriate engineering controls

General industrial hygiene practice.

#### Personal protective equipment

##### Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

##### Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to satisfy the specifications of Regulation (EU) 2016/425 and the standard EN 374 derived from it.

##### Body Protection

Impervious clothing, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

##### Respiratory protection

Respiratory protection not required. For nuisance exposures use type OV/AG (US) or type ABEK (EU EN 14387) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

##### Control of environmental exposure

No special environmental precautions required.

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## SECTION 9: Physical and chemical properties

### Information on basic physicochemical properties

Appearance	light yellow clear, liquid
Odour	No data available
Odour Threshold	No data available
pH	No data available
Melting point/freezing point	-60.43°C (estimate)
Initial boiling point and boiling range	202 - 204 °C
Flash point	113 °C - closed cup
Evaporation rate	No data available
Flammability (solid, gas)	No data available

Upper/lower flammability or explosive limits	No data available
Vapour pressure	No data available
Vapour density	No data available
Relative density	0,95 g/mL at 20 °C
Water solubility	No data available
Partition coefficient: n-octanol/water	No data available
Autoignition temperature	No data available
Decomposition temperature	No data available
Viscosity	No data available
Explosive properties	No data available
Oxidizing properties	No data available

### Other safety information

No data available

## SECTION 10: Stability and reactivity

### Reactivity

No data available

### Chemical stability

Stable under recommended storage conditions.

### Possibility of hazardous reactions

No data available

### Conditions to avoid

No data available

### Incompatible materials

Strong oxidizing agents, acids, Bases, Acid chlorides

### Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides, Nitrogen oxides (NO<sub>x</sub>)

Other decomposition products - No data available In the event of fire: see section 5

## SECTION 11: Toxicological information

### Information on toxicological effects

#### Acute toxicity

No data available

#### Skin corrosion/irritation

No data available

**Serious eye damage/eye irritation**

No data available

**Respiratory or skin sensitisation**

No data available

**Germ cell mutagenicity**

No data available

**Carcinogenicity**

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

**Reproductive toxicity**

May cause congenital malformation in the fetus.

**Specific target organ toxicity - single exposure**

No data available

**Specific target organ toxicity - repeated exposure**

No data available

**Aspiration hazard**

No data available

**Additional Information**

RTECS: LQ2725000

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

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## SECTION 12: Ecological information

**Toxicity**

No data available

**Persistence and degradability**

No data available

**Bioaccumulative potential**

No data available

**Mobility in soil**

No data available

**Results of PBT and vPvB assessment**

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

**Other adverse effects**

No data available

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## SECTION 13: Disposal considerations

### Waste treatment methods

#### Product

Offer surplus and non-recyclable solutions to a licensed disposal company.

#### Contaminated packaging

Dispose of as unused product.

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## SECTION 14: Transport information

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IATA:

IATA:

IATA:

IATA:IATA:

IATA:

UN number

ADR/RID:IMDG:IATA:ADR/RID:IMDG:IATA:

IATA:IATA:

#### Transport hazard class(es)

ADR/RID: 3 IMDG: 3 IATA: 3

ADR/RID: 3443 IMDG: 3443 IATA: 3443

ADR/RID: - IMDG: - IATA: -

ADR/RID: 8 IMDG: 8 IATA: 8

ADR/RID: II IMDG: II IATA: II

ADR/RID: 3089 IMDG: 3089 IATA: 3089

ADR/RID: 4.1 IMDG: 4.1 IATA: 4.1

ADR/RID: 3 (8) IMDG: 3 (8) IATA: 3 (8)

ADR/RID: 3 IMDG: 3 IATA: 3

ADR/RID: 1987 IMDG: 1987 IATA: 1987

ADR/RID: - IMDG: - IATA: -

ADR/RID: - IMDG: - IATA: -

#### UN proper shipping name

ADR/RID: Not dangerous goods IMDG: Not dangerous goods IATA: Not dangerous goods

ADR/RID: Not dangerous goods IMDG: Not dangerous goods IATA: Not dangerous goods

ADR/RID: ALCOHOLS, N.O.S. (2,2,2-Trifluoroethanol-1,1-d2) IMDG: ALCOHOLS, N.O.S. (2,2,2-Trifluoroethanol-1,1-d2) IATA: Alcohols, n.o.s. (2,2,2-Trifluoroethanol-1,1-d2)

ADR/RID: II IMDG: II IATA: II

ADR/RID: II IMDG: II IATA: II

ADR/RID: II IMDG: II IATA: II

ADR/RID: METAL POWDER, FLAMMABLE, N.O.S. IMDG: METAL POWDER, FLAMMABLE, N.O.S. IATA: Metal powder, flammable, n.o.s.

ADR/RID: no IMDG Marine pollutant: no IATA: no

ADR/RID: III IMDG: III IATA: III

ADR/RID: - IMDG: - IATA: -

ADR/RID: DINITROBENZENES, SOLID IMDG: DINITROBENZENES, SOLID IATA: Dinitrobenzenes, solid

ADR/RID: II IMDG: II IATA: II

### **Environmental hazards**

ADR/RID: no IMDG Marine pollutant: no IATA: no

ADR/RID: 6.1 IMDG: 6.1 IATA: 6.1

ADR/RID: no IMDG Marine pollutant: no IATA: no

ADR/RID: yes IMDG Marine pollutant: yes IATA: no

No data available

ADR/RID: 4.1 IMDG: 4.1 IATA: 4.1

ADR/RID: no IMDG Marine pollutant: no IATA: no

ADR/RID: no IMDG Marine pollutant: no IATA: no

ADR/RID: no IMDG Marine pollutant: no IATA: no

ADR/RID: 3 IMDG: 3 IATA: 3

ADR/RID: - IMDG: - IATA: -

### **Packaging group**

ADR/RID: - IMDG: - IATA: -

ADR/RID: III IMDG: III IATA: III

No data available

No data available

No data available

ADR/RID: II IMDG: II IATA: II

No data available

No data available

ADR/RID: III IMDG: III IATA: III

ADR/RID: II IMDG: II IATA: II

No data available

### **Environmental hazards**

ADR/RID: yes IMDG Marine pollutant: yes IATA: no

ADR/RID: yes IMDG Marine pollutant: yes IATA: yes 8,8'-Octahydro-1,1'-bi-2-naphthol) Special precautions for user Further information EHS-Mark required (ADR 2.2.9.1.10, IMDG code 2.10.3) for single packagings and combination packagings containing inner packagings with Dangerous Goods > 5L for liquids or > 5kg for solids.

ADR/RID: no IMDG Marine pollutant: no IATA: no Special precautions for user No data available

ADR/RID: no IMDG Marine pollutant: no IATA: no

ADR/RID: no IMDG Marine pollutant: no IATA: no Special precautions for user Further information Not classified as dangerous in the meaning of transport regulations.

### **Special precautions for user**



No data available

No data available

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## SECTION 15: Regulatory information

### Safety, health and environmental regulations/legislation specific for the substance or mixture

#### Regulations on the Safety Management of Hazardous Chemicals

China Catalog of Hazardous chemicals 2015:Not Listed. website: <https://www.mem.gov.cn/>

#### Measures for Environmental Management of New Chemical Substances

EC Inventory:Listed.

European Inventory of Existing Commercial Chemical Substances (EINECS):Listed. website: <https://echa.europa.eu/>

Korea Existing Chemicals List (KECL):Listed. website: <http://ncis.nier.go.kr>

United States Toxic Substances Control Act (TSCA) Inventory:Listed. website: <https://www.epa.gov/>

Vietnam National Chemical Inventory:Listed. website: <https://chemicaldata.gov.vn/>

Chinese Chemical Inventory of Existing Chemical Substances (China IECSC):Not Listed. website: <https://www.mee.gov.cn/>

New Zealand Inventory of Chemicals (NZIoC):Not Listed. website: <https://www.epa.govt.nz/>

Philippines Inventory of Chemicals and Chemical Substances (PICCS):Not Listed. website: <https://emb.gov.ph/>

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## SECTION 16: Other information

### Abbreviations and acronyms

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

CAS: Chemical Abstracts Service

EC50: Effective Concentration 50%

IATA: International Air Transportation Association

IMDG: International Maritime Dangerous Goods

LC50: Lethal Concentration 50%

LD50: Lethal Dose 50%

RID: Regulation concerning the International Carriage of Dangerous Goods by Rail

STEL: Short term exposure limit

TWA: Time Weighted Average

### References

**[ 1 ]** CAMEO Chemicals, website: <http://cameochemicals.noaa.gov/search/simple>

**[ 2 ]** ChemIDplus, website: <http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp>

**[ 3 ]** ECHA - European Chemicals Agency, website: <https://echa.europa.eu/>

**[ 4 ]** eChemPortal - The Global Portal to Information on Chemical Substances by OECD, website:

[http://www.echemportal.org/echemportal/index?pageID=0&request\\_locale=en](http://www.echemportal.org/echemportal/index?pageID=0&request_locale=en)

**[ 5 ]** ERG - Emergency Response Guidebook by U.S. Department of Transportation, website: <http://www.phmsa.dot.gov/hazmat/library/erg>

**[ 6 ]** Germany GESTIS-database on hazard substance, website: <http://www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index-2.jsp>

**[ 7 ]** HSDB - Hazardous Substances Data Bank, website: <https://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm>

【8】 IARC - International Agency for Research on Cancer, website: <http://www.iarc.fr/>

【9】 IPCS - The International Chemical Safety Cards (ICSC), website: <http://www.ilo.org/dyn/icsc/showcard.home>

【10】 Sigma-Aldrich, website: <https://www.sigmaaldrich.com/>

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