



**Safety Data Sheet**

according to 29 CFR 1910.1200(g)

**NATURAL TRANS-2-NONENAL**

Revision date: 01/12/2023

Product code: 321320US

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**Hazards not otherwise classified**

No information available.

**3. Composition/information on ingredients****Substances**

Sum formula: C<sub>9</sub>H<sub>16</sub>O  
Molecular weight: 140,23

**Hazardous components**

CAS No	Components	Quantity
18829-56-6	NATURAL TRANS-2-NONENAL	100 %

**4. First-aid measures****Description of first aid measures****After inhalation**

Provide fresh air. When in doubt or if symptoms are observed, get medical advice.

**After contact with skin**

After contact with skin, wash immediately with plenty of water and soap. Take off immediately all contaminated clothing and wash it before reuse. Medical treatment necessary.

**After contact with eyes**

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.

**After ingestion**

Observe risk of aspiration if vomiting occurs. Rinse mouth immediately and drink 1 glass of water.

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

No information available.

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

Treat symptomatically.

**5. Fire-fighting measures****Extinguishing media****Suitable extinguishing media**

Co-ordinate fire-fighting measures to the fire surroundings.

**Specific hazards arising from the chemical**

Non-flammable. Vapors may form explosive mixtures with air.

**Special protective equipment and precautions for fire-fighters**

Wear a self-contained breathing apparatus and chemical protective clothing. Full protection suit.

**Additional information**

Use water spray/stream to protect personnel and to cool endangered containers. Suppress gases/vapors/mists with water spray jet. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

**6. Accidental release measures****Personal precautions, protective equipment and emergency procedures****General advice**

Provide adequate ventilation. Do not breathe gas/fume/vapor/spray. Avoid contact with skin, eyes and clothes. Use personal protection equipment.

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**Environmental precautions**

Do not allow to enter into surface water or drains.

**Methods and material for containment and cleaning up****For cleaning up**

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal.

**Other information**

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal.

**Reference to other sections**

Safe handling: see section 7

Personal protection equipment (PPE): see section 8

Disposal: see section 13

**7. Handling and storage****Precautions for safe handling****Advice on safe handling**

No special measures are necessary.

**Advice on protection against fire and explosion**

No special fire protection measures are necessary.

**Advice on general occupational hygiene**

Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat, drink, smoke, sniff. Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat, drink, smoke, sniff.

**Conditions for safe storage, including any incompatibilities****Requirements for storage rooms and vessels**

Keep container tightly closed.

**Hints on joint storage**

No special measures are necessary.

**8. Exposure controls/personal protection****Control parameters****Exposure controls****Individual protection measures, such as personal protective equipment****Eye/face protection**

Wear eye/face protection.

**Hand protection**

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

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#### Skin protection

Use of protective clothing.

#### Respiratory protection

In case of inadequate ventilation wear respiratory protection.

## 9. Physical and chemical properties

### Information on basic physical and chemical properties

Physical state:	Liquid	
Color:	Colourless to pale yellow	
Melting point/freezing point:		not determined
Boiling point or initial boiling point and boiling range:		189 °C
Flammability		
Solid/liquid:		not applicable
Gas:		not applicable
Lower explosion limits:		not determined
Upper explosion limits:		not determined
Flash point:		84 °C
Auto-ignition temperature:		not determined
Decomposition temperature:		not determined
pH-Value:		not determined
Water solubility:		0,2 g/L
(at 20 °C)		
Solubility in other solvents		
not determined		
Partition coefficient n-octanol/water:		3,319
Vapor pressure:		not determined
Density (at 20 °C):		0,86 g/cm <sup>3</sup>
Relative vapour density:		4,84
(at 20 °C)		

### Other information

#### Information with regard to physical hazard classes

##### Explosive properties

The product is not: Explosive. not hazard of explosion according to EU A.14

##### Oxidizing properties

The product is not: oxidising.

#### Other safety characteristics

Evaporation rate:	not determined
Solvent content:	0%
Solid content:	0%

## 10. Stability and reactivity

### Reactivity

No hazardous reaction when handled and stored according to provisions.

### Chemical stability

The product is stable under storage at normal ambient temperatures.

### Possibility of hazardous reactions

No known hazardous reactions.

### Conditions to avoid

none/none

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#### Incompatible materials

No information available.

#### Hazardous decomposition products

No known hazardous decomposition products.

## 11. Toxicological information

### Information on toxicological effects

#### **Acute toxicity**

Based on available data, the classification criteria are not met.

CAS No	Components				
	Exposure route	Dose	Species	Source	Method
18829-56-6	NATURAL TRANS-2-NONENAL				
	oral	LD50 >5000 mg/kg	Rat	Food and Chem. Tox., 20 (775), 1982	
	dermal	LD50 3700 mg/kg	Rabbit	Food and Chem. Tox., 20 (775), 1982	

#### **Irritation and corrosivity**

Causes skin irritation

Serious eye damage/eye irritation: Based on available data, the classification criteria are not met.

#### **Sensitizing effects**

May cause an allergic skin reaction (NATURAL TRANS-2-NONENAL)

#### **Carcinogenic/mutagenic/toxic effects for reproduction**

Based on available data, the classification criteria are not met.

#### **Specific target organ toxicity (STOT) - single exposure**

Based on available data, the classification criteria are not met.

#### **Specific target organ toxicity (STOT) - repeated exposure**

Based on available data, the classification criteria are not met.

Carcinogenicity (OSHA): Not listed.

Carcinogenicity (IARC): Not listed.

Carcinogenicity (NTP): Not listed.

#### **Aspiration hazard**

Based on available data, the classification criteria are not met.

### Information on other hazards

#### **Endocrine disrupting properties**

No information available.

#### **Further information**

This substance is classified as hazardous according to Regulation (EC) No 1272 (2008).

## 12. Ecological information

### Ecotoxicity

The product is not: Ecotoxic.

### Persistence and degradability

The product has not been tested.

### Bioaccumulative potential

The product has not been tested.

### Mobility in soil

The product has not been tested.

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#### Endocrine disrupting properties

This substance does not have endocrine disrupting properties with respect to non-target organisms.  
No information available.

#### Other adverse effects

No information available.

#### Further information

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil.

### 13. Disposal considerations

#### Waste treatment methods

##### **Disposal recommendations**

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil. Dispose of waste according to applicable legislation.

##### **Contaminated packaging**

Non-contaminated packages may be recycled. Handle contaminated packages in the same way as the substance itself.

### 14. Transport information

#### **U.S. DOT 49 CFR 172.101**

##### Proper shipping name:

No dangerous good in sense of this transport regulation.

#### **Marine transport (IMDG)**

##### UN number or ID number:

No dangerous good in sense of this transport regulation.

##### UN proper shipping name:

No dangerous good in sense of this transport regulation.

##### Transport hazard class(es):

No dangerous good in sense of this transport regulation.

##### Packing group:

No dangerous good in sense of this transport regulation.

#### **Air transport (ICAO-TI/IATA-DGR)**

##### UN number or ID number:

No dangerous good in sense of this transport regulation.

##### UN proper shipping name:

No dangerous good in sense of this transport regulation.

##### Transport hazard class(es):

No dangerous good in sense of this transport regulation.

##### Packing group:

No dangerous good in sense of this transport regulation.

#### Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

#### Special precautions for user

No information available.

#### Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

not applicable

### 15. Regulatory information

#### U.S. Regulations

##### **National regulatory information**

SARA Section 311/312 Hazards:

NATURAL TRANS-2-NONENAL (18829-56-6): Immediate (acute) health hazard

##### **State Regulations**

##### **Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65, State of California)**

This product can not expose you to chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

### 16. Other information

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**Abbreviations and acronyms**

ADR: Accord européen sur le transport des marchandises dangereuses par Route  
(European Agreement concerning the International Carriage of Dangerous Goods by Road)  
IMDG: International Maritime Code for Dangerous Goods  
IATA: International Air Transport Association  
GHS: Globally Harmonized System of Classification and Labelling of Chemicals  
EINECS: European Inventory of Existing Commercial Chemical Substances  
ELINCS: European List of Notified Chemical Substances  
CAS: Chemical Abstracts Service  
LC50: Lethal concentration, 50%  
LD50: Lethal dose, 50%  
CLP: Classification, labelling and Packaging  
REACH: Registration, Evaluation and Authorization of Chemicals  
GHS: Globally Harmonised System of Classification, Labelling and Packaging of Chemicals  
UN: United Nations  
DNEL: Derived No Effect Level  
DMEL: Derived Minimal Effect Level  
PNEC: Predicted No Effect Concentration  
ATE: Acute toxicity estimate  
LL50: Lethal loading, 50%  
EL50: Effect loading, 50%  
EC50: Effective Concentration 50%  
ErC50: Effective Concentration 50%, growth rate  
NOEC: No Observed Effect Concentration  
BCF: Bio-concentration factor  
PBT: persistent, bioaccumulative, toxic  
vPvB: very persistent, very bioaccumulative  
RID: Regulations concerning the international carriage of dangerous goods by rail  
ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways  
(Accord européen relatif au transport international des marchandises dangereuses par voies de navigation  
intérieures)  
EmS: Emergency Schedules  
MFAG: Medical First Aid Guide  
ICAO: International Civil Aviation Organization  
MARPOL: International Convention for the Prevention of Marine Pollution from Ships  
IBC: Intermediate Bulk Container  
VOC: Volatile Organic Compounds  
SVHC: Substance of Very High Concern  
For abbreviations and acronyms, see table at <http://abbrev.esdscom.eu>  
For abbreviations and acronyms, see: ECHA Guidance on information requirements and chemical safety  
assessment, chapter R.20 (Table of terms and abbreviations).

**Other data**

The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights. The receiver of our product is singularly responsible for adhering to existing laws and regulations.