

according to Regulation (EC) No 1907/2006

#### **NATURAL TRANS-2-HEXENAL**

Revision date: 06.09.2024 Product code: 256020 Page 1 of 11

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1. Product identifier

NATURAL TRANS-2-HEXENAL

Substance name: NATURAL TRANS-2-HEXENAL

CAS No: 6728-26-3 EC No: 229-778-1

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

#### Use of the substance/mixture

Manufacturing of: - Air care products - Perfumes, fragrances - Pharmaceuticals - Cosmetics, personal care products - Flavouring Substances - Other

### 1.3. Details of the supplier of the safety data sheet

Company name: Axxence Aromatic GmbH

Street: Tackenweide 28

Place: D-46446 Emmerich am Rhein

Telephone: + 49 2822 68561 0 Telefax: + 49 2822 68561 39

E-mail: info@axxence.com

Contact person: Safety Team Telephone: + 49 2822 68561 0

E-mail: safety-documentation@axxence.com

Internet: www.axxence.de
Responsible Department: Safety Management

1.4. Emergency telephone +49 2822 68561 99

number:

# **SECTION 2: Hazards identification**

# 2.1. Classification of the substance or mixture

### Regulation (EC) No 1272/2008

Flam. Liq. 3; H226 Acute Tox. 3; H311 Acute Tox. 4; H302 Eye Irrit. 2; H319 Skin Sens. 1B; H317

Full text of hazard statements: see SECTION 16.

### 2.2. Label elements

### Regulation (EC) No 1272/2008

Signal word: Danger

Pictograms:





### **Hazard statements**

H226 Flammable liquid and vapour. H302 Harmful if swallowed.

H311 Toxic in contact with skin.

H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.

#### **Precautionary statements**

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



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	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.			
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.			
P264	Wash hands thoroughly after handling.			
P270	Do not eat, drink or smoke when using this product.			
P272	Contaminated work clothing should not be allowed out of the workplace.			
P280	Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.			
P301+P312	F SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.			
P330	Rinse mouth.			
P302+P352	IF ON SKIN: Wash with plenty of water.			
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.			
P312	Call a POISON CENTER/doctor if you feel unwell.			
P361+P364	Take off immediately all contaminated clothing and wash it before reuse.			
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.			
P337+P313	If eye irritation persists: Get medical advice/attention.			
P370+P378	In case of fire: Use Water spray jet / Carbon dioxide (CO2) / Foam / Extinguishing powder to extinguish.			
P403+P235	Store in a well-ventilated place. Keep cool.			

# P501 2.3. Other hazards

P405

This substance is not identifed as SVHC (substance of very high concern) and is not subject to autorisation according to Annex XIV of REACH. This substance is not listed as Substance of Very High Concern (SVHC) in the Candidate List according to REACH, Article 59.

Dispose of contents/container to organic waste.

# **SECTION 3: Composition/information on ingredients**

Store locked up.

### 3.1. Substances

Sum formula: C6 H10 O Molecular weight: 98,14 g/mol

### Relevant ingredients

CAS No	Chemical name			
	EC No	Index No	REACH No	
	Classification (Regulation (EC) No 1272/2008)			
6728-26-3	NATURAL TRANS-2-HEXENAL			100%
	229-778-1			
	Flam. Liq. 3, Acute Tox. 3, Acute Tox. 4, Eye Irrit. 2, Skin Sens. 1B; H226 H311 H302 H319 H317			

Full text of H and EUH statements: see section 16.

### Specific Conc. Limits, M-factors and ATE

CAS No	EC No	Chemical name	Quantity
	Specific Conc. Limits, M-factors and ATE		
6728-26-3	229-778-1	NATURAL TRANS-2-HEXENAL	100%
	dermal: LD50 = 600 mg/kg; oral: LD50 = 780 mg/kg		



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#### **SECTION 4: First aid measures**

#### 4.1. Description of first aid measures

#### **General information**

First aider: Pay attention to self-protection! Remove affected person from the danger area and lay down.

#### 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. Call a physician immediately.

### 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. If accidentally swallowed rinse the mouth with plenty of water (only if the person is conscious) and obtain immediate medical attention.

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

No information available.

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

Treat symptomatically.

### **SECTION 5: Firefighting measures**

#### 5.1. Extinguishing media

### Suitable extinguishing media

Carbon dioxide (CO2), Foam, Extinguishing powder.

#### Unsuitable extinguishing media

Water.

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

Flammable. Vapours can form explosive mixtures with air.

#### 5.3. Advice for firefighters

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

#### Additional information

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

# **SECTION 6: Accidental release measures**

# 6.1. Personal precautions, protective equipment and emergency procedures

### General advice

Remove all sources of ignition. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes. Use personal protection equipment.

### 6.2. Environmental precautions

Do not allow uncontrolled discharge of product into the environment. Explosion risk.

### 6.3. 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.



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#### 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.

#### 6.4. Reference to other sections

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

### **SECTION 7: Handling and storage**

#### 7.1. Precautions for safe handling

### Advice on safe handling

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray.

### Advice on protection against fire and explosion

Keep away from sources of ignition - No smoking. Take precautionary measures against static discharges. Vapours can form explosive mixtures with air.

### 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.

### 7.2. Conditions for safe storage, including any incompatibilities

#### Requirements for storage rooms and vessels

Keep container tightly closed. Keep locked up. Store in a place accessible by authorized persons only. Provide adequate ventilation as well as local exhaustion at critical locations. Keep in a cool, well-ventilated place. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

#### Hints on joint storage

Do not store together with: Oxidizing agent. Pyrophoric or self-heating substances.

# 7.3. Specific end use(s)

Manufacturing of: - Air care products - Perfumes, fragrances - Pharmaceuticals - Cosmetics, personal care products - Flavouring Substances - Other

### **SECTION 8: Exposure controls/personal protection**

### 8.1. Control parameters

# 8.2. Exposure controls









#### Appropriate engineering controls

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray.

### Individual protection measures, such as personal protective equipment

#### Eye/face protection

Suitable eye protection: goggles.

### Hand protection

Suitable gloves type: Butyl caoutchouc (butyl rubber).

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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. Suitable gloves type: Butyl caoutchouc (butyl rubber) / FKM (fluoro rubber)

#### Skin protection

Use of protective clothing.

# **Respiratory protection**

In case of inadequate ventilation wear respiratory protection.

### **SECTION 9: Physical and chemical properties**

### 9.1. Information on basic physical and chemical properties

Physical state: Liquid

Colour:

Melting point/freezing point:

-78 °C

Boiling point or initial boiling point and

147 °C

boiling range:

Flammability: not determined Lower explosion limits: not determined Upper explosion limits: not determined Flash point: 38 °C Auto-ignition temperature: not determined Decomposition temperature: not determined pH-Value: not determined Viscosity / kinematic: not determined Water solubility: 5,26 g/l

(at 25 °C)

Solubility in other solvents

not determined

Partition coefficient n-octanol/water: 1,58
Vapour pressure: 13 hPa

(at 20 °C)

Density (at 20 °C): 0,84 g/cm³
Relative vapour density: 3,4

(at 20 °C)

Particle characteristics: not applicable

### 9.2. Other information

### Information with regard to physical hazard classes

Explosive properties

The product is not: Explosive. not explosive 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%

# **SECTION 10: Stability and reactivity**

### 10.1. Reactivity

Flammable.

# 10.2. Chemical stability



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The product is stable under storage at normal ambient temperatures.

#### 10.3. Possibility of hazardous reactions

No known hazardous reactions.

#### 10.4. Conditions to avoid

Keep away from sources of heat (e.g. hot surfaces), sparks and open flames. Vapours can form explosive mixtures with air.

### 10.5. Incompatible materials

No information available.

### 10.6. Hazardous decomposition products

No known hazardous decomposition products.

### **SECTION 11: Toxicological information**

### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

#### Acute toxicity

Toxic in contact with skin.

Harmful if swallowed.

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
6728-26-3	NATURAL TRANS-2-HEXENAL				
	oral	LD50 780 mg/kg	Rat	REACH Dossier	
	dermal	LD50 600 mg/kg	Rabbit		

### Irritation and corrosivity

Serious eye damage/eye irritation: Causes serious eye irritation.

Skin corrosion/irritation: Based on available data, the classification criteria are not met.

### Sensitising effects

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

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

Germ cell mutagenicity: Based on available data, the classification criteria are not met.

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

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

#### STOT-single exposure

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

#### STOT-repeated exposure

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

### **Aspiration hazard**

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

#### 11.2. Information on other hazards

### **Endocrine disrupting properties**

No information available.

# **SECTION 12: Ecological information**

#### 12.1. Toxicity

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

The product is not: Ecotoxic.

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CAS No	Chemical name					
	Aquatic toxicity	Dose	[h]   [d]	Species	Source	Method
6728-26-3	NATURAL TRANS-2-HEXENAL					
	Acute algae toxicity	ErC50 8,16 mg/l	72 h	Pseudokirchneriella subcapitata	REACH registration	QSAR Predictions
	Acute crustacea toxicity	EC50 22,8 mg/l	48 h	Daphnia magna (Big water flea)	_	OECD Toolbox software

#### 12.2. Persistence and degradability

The product has not been tested.

### 12.3. Bioaccumulative potential

The product has not been tested.

#### Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
6728-26-3	NATURAL TRANS-2-HEXENAL	1,58

#### 12.4. Mobility in soil

The product has not been tested.

### 12.5. Results of PBT and vPvB assessment

This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.

The product has not been tested.

#### 12.6. Endocrine disrupting properties

This substance does not have endocrine disrupting properties with respect to non-target organisms.

#### 12.7. 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.

### **SECTION 13: Disposal considerations**

# 13.1. 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.

### List of Wastes Code - residues/unused products

160305 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; off-specification batches and unused products; organic wastes containing hazardous substances; hazardous waste

# List of Wastes Code - used product

160305 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; off-specification batches and unused products; organic wastes containing hazardous substances; hazardous waste

#### List of Wastes Code - contaminated packaging

150110 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND

PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); packaging containing residues of or contaminated by hazardous substances; hazardous waste

### Contaminated packaging

Hazardous waste according to Directive 2008/98/EC (waste framework directive). Handle contaminated packages in the same way as the substance itself.

### **SECTION 14: Transport information**



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### Land transport (ADR/RID)

14.1. UN number or ID number: UN 1988

14.2. UN proper shipping name: ALDEHYDES, FLAMMABLE, TOXIC, N.O.S.

14.3. Transport hazard class(es):314.4. Packing group:IIIHazard label:3+6.1



Classification code: FT1
Special Provisions: 274
Limited quantity: 5 L
Excepted quantity: E1
Transport category: 3
Hazard No: 36
Tunnel restriction code: D/E

### Other applicable information (land transport)

E1

### Inland waterways transport (ADN)

14.1. UN number or ID number: UN 1988

14.2. UN proper shipping name: ALDEHYDES, FLAMMABLE, TOXIC, N.O.S.

14.3. Transport hazard class(es):314.4. Packing group:IIIHazard label:3+6.1



Classification code: FT1
Special Provisions: 274 802
Limited quantity: 5 L
Excepted quantity: E1

# Other applicable information (inland waterways transport)

E1

# Marine transport (IMDG)

**14.1. UN number or ID number:** UN 1988

14.2. UN proper shipping name: ALDEHYDES, FLAMMABLE, TOXIC, N.O.S.

14.3. Transport hazard class(es):314.4. Packing group:IIIHazard label:3+6.1



Special Provisions: 223 274
Limited quantity: 5 L
Excepted quantity: E1
EmS: F-E, S-D

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

14.1. UN number or ID number: UN 1988

14.2. UN proper shipping name: ALDEHYDES, FLAMMABLE, TOXIC, N.O.S.

14.3. Transport hazard class(es): 3
14.4. Packing group: |||



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Hazard label: 3+6.1



Special Provisions:

Limited quantity Passenger:

Passenger LQ:

Excepted quantity:

A3

2 L

Y343

Excepted quantity:

E1

IATA-packing instructions - Passenger:355IATA-max. quantity - Passenger:60 LIATA-packing instructions - Cargo:366IATA-max. quantity - Cargo:220 L

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

Danger releasing substance: NATURAL TRANS-2-HEXENAL

14.6. Special precautions for user

Warning: Combustible liquid. Acute Toxicity.

# 14.7. Maritime transport in bulk according to IMO instruments

not applicable

# **SECTION 15: Regulatory information**

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

### **EU** regulatory information

Restrictions on use (REACH, annex XVII):

Entry 3, Entry 40

Directive 2010/75/EU on industrial 100 % (840 g/l)

emissions:

Directive 2004/42/EC on VOC in

paints and varnishes:

100 % (840 g/l)

Information according to Directive

2012/18/EU (SEVESO III):

P5c FLAMMABLE LIQUIDS

**National regulatory information** 

Employment restrictions: Observe restrictions to employment for juveniles according to the 'juvenile

work protection guideline' (94/33/EC). Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or

nursing mothers.

Water hazard class (D): 2 - obviously hazardous to water

Skin resorption/Sensitization: Permeates easily through outer skin and causes poisoning. Causes

allergic hypersensitivity reactions.

### 15.2. Chemical safety assessment

For this substance a chemical safety assessment has not been carried out.

### **SECTION 16: Other information**

### Changes

This data sheet contains changes from the previous version in section(s): 1.



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### Abbreviations and acronyms

Flam. Liq: Flammable liquid Acute Tox: Acute toxicity Eye Irrit: Eye irritation Skin Sens: Skin sensitisation

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). EC/EEC: European Community/European Economic Community

EU: European Union M-factor: Multiplying factor

IATA: International Air Transport Association

DGR: Dangerous Goods Regulations

ICAO: International Civil Aviation Organization

TI: Technical Instructions VOC: volatile organic compound

### Relevant H and EUH statements (number and full text)

H226 Flammable liquid and vapour.



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H302 Harmful if swallowed.H311 Toxic in contact with skin.

H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.

### **Further Information**

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.