



**Safety Data Sheet**

according to 29 CFR 1910.1200(g)

**NATURAL METHYL NONYL KETONE (2-UNDECANONE)**

Revision date: 06/19/2023

Product code: 309310US

Page 2 of 8

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

Provide fresh air.

**After contact with skin**

Wash with plenty of water. Take off contaminated clothing and wash it before reuse.

**After contact with eyes**

Rinse immediately carefully and thoroughly with eye-bath or water.

**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**

In case of fire: Wear self-contained breathing apparatus.

**Additional information**

Use water spray/stream to protect personnel and to cool endangered containers. 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**

Use personal protection equipment.

**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**

## Safety Data Sheet

according to 29 CFR 1910.1200(g)

### NATURAL METHYL NONYL KETONE (2-UNDECANONE)

Revision date: 06/19/2023

Product code: 309310US

Page 3 of 8

#### 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**

Take off contaminated clothing. Wash hands before breaks and after work. 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.

##### **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:		12 °C
Boiling point or initial boiling point and boiling range:		231 °C
Flammability:		not determined
Lower explosion limits:		not determined
Upper explosion limits:		not determined
Flash point:		93 °C
Auto-ignition temperature:		255 °C
Decomposition temperature:		not determined
pH-Value (at 23 °C):		7,95
Water solubility: (at 25 °C)		0,08 g/L

## Safety Data Sheet

according to 29 CFR 1910.1200(g)

### NATURAL METHYL NONYL KETONE (2-UNDECANONE)

Revision date: 06/19/2023

Product code: 309310US

Page 4 of 8

**Solubility in other solvents**

not determined

Partition coefficient n-octanol/water:

<3,69

Vapor pressure:

0,055 hPa

(at 20 °C)

Density (at 20 °C):

0,83 g/cm<sup>3</sup>

Relative vapour density:

5,87

(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%

Viscosity / dynamic:

1,61 mPa·s

(at 30 °C)

## 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

**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
112-12-9	NATURAL METHYL NONYL KETONE (2-UNDECANONE)				
	oral	LD50 mg/kg	>2500	Rat	REACH registration OECD 423
	dermal	LD50 mg/kg	>5000	Rabbit	REACH registration OECD 402
	inhalation vapour	LC50 mg/l	>5430	Rat	REACH registration OECD 403

## Safety Data Sheet

according to 29 CFR 1910.1200(g)

### NATURAL METHYL NONYL KETONE (2-UNDECANONE)

Revision date: 06/19/2023

Product code: 309310US

Page 5 of 8

#### **Irritation and corrosivity**

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

#### **Sensitizing effects**

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

#### **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**

Very toxic to aquatic life. Harmful to aquatic life with long lasting effects.

CAS No	Components					
	Aquatic toxicity	Dose	[h]   [d]	Species	Source	Method
112-12-9	NATURAL METHYL NONYL KETONE (2-UNDECANONE)					
	Acute fish toxicity	LC50 1,5 mg/l	96 h	Pimephales promelas (fathead minnow)	REACH Registration	
	Acute algae toxicity	ErC50 mg/l 14,3	72 h	Pseudokirchneriella subcapitata	REACH registration	OECD 201
	Acute crustacea toxicity	EC50 mg/l 0,23	48 h	Daphnia magna (Big water flea)	REACH registration	OECD 202
	Acute bacteria toxicity	(EC50 mg/l) 379,49	3 h	Activated sludge	REACH registration	OECD 209

#### **Persistence and degradability**

The product has not been tested.

#### **Bioaccumulative potential**

The product has not been tested.

#### **Partition coefficient n-octanol/water**

CAS No	Components	Log Pow
112-12-9	NATURAL METHYL NONYL KETONE (2-UNDECANONE)	<3,69

#### **Mobility in soil**

The product has not been tested.

#### **Endocrine disrupting properties**

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

#### **Other adverse effects**

No information available.

## Safety Data Sheet

according to 29 CFR 1910.1200(g)

### NATURAL METHYL NONYL KETONE (2-UNDECANONE)

Revision date: 06/19/2023

Product code: 309310US

Page 6 of 8

#### 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

**UN number or ID number:**

UN 3082

**Proper shipping name:**

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

**Transport hazard class(es):**

9

**Packing group:**

III

Hazard label:

9



#### Marine transport (IMDG)

**UN number or ID number:**

UN 3082

**UN proper shipping name:**

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

**Transport hazard class(es):**

9

**Packing group:**

III

Hazard label:

9



Special Provisions:

274 335 969

Limited quantity:

5 L

Excepted quantity:

E1

EmS:

F-A, S-F

Segregation group:

1 - acids

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

**UN number or ID number:**

UN 3082

**UN proper shipping name:**

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

**Transport hazard class(es):**

9

**Packing group:**

III

Hazard label:

9



Special Provisions:

A97 A158 A197 A215

Limited quantity Passenger:

30 kg G

Passenger LQ:

Y964

Excepted quantity:

E1

**Safety Data Sheet**

according to 29 CFR 1910.1200(g)

**NATURAL METHYL NONYL KETONE (2-UNDECANONE)**

Revision date: 06/19/2023

Product code: 309310US

Page 7 of 8

IATA-packing instructions - Passenger:	964
IATA-max. quantity - Passenger:	450 L
IATA-packing instructions - Cargo:	964
IATA-max. quantity - Cargo:	450 L

**Environmental hazards**

ENVIRONMENTALLY HAZARDOUS: Yes



Danger releasing substance: 2-UNDECANONE

**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****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**

Revision date: 06/19/2023

Revision No: 102

**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

**Safety Data Sheet**

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**NATURAL METHYL NONYL KETONE (2-UNDECANONE)**

Revision date: 06/19/2023

Product code: 309310US

Page 8 of 8

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.