



BITTER ALMOND OIL (amygdalus)

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830
Issue date: 9/6/2016 Revision date: 3/1/2021 Supersedes: 3/1/2021 Version: 1.9

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

1.1. Product identifier

Product form : Substance
Substance name : BITTER ALMOND OIL (amygdalus)
EC-No. : 291-060-9
CAS-No. : 90320-35-7
Product code : AMAHE01
Synonyms : CAS N° USA : 8013-76-1
Product group : Essential oil

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

1.2.1. Relevant identified uses

Main use category : Industrial use
Industrial/Professional use spec : Industrial
For professional use only

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

EXAFLOR
5 rue des Pyrénées
P.O. Box CP 30561
94653 Rungis Cedex - France
T +33 (0)1 41 73 23 10
exaflor@orange.fr - www.exaflor.co

1.4. Emergency telephone number

Country	Organisation/Company	Address	Emergency number	Comment
	ORFILA (FRANCE)		+33 1 45 42 59 59	

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Acute toxicity (oral), Category 4 H302
Acute toxicity (dermal), Category 4 H312
Hazardous to the aquatic environment — Chronic Hazard, Category 3 H412
Full text of H statements : see section 16

Adverse physicochemical, human health and environmental effects

Harmful in contact with skin. Harmful if swallowed. Harmful to aquatic life with long lasting effects.

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



GHS07

Signal word (CLP) : Warning
Hazard statements (CLP) : H302+H312 - Harmful if swallowed or in contact with skin.
H412 - Harmful to aquatic life with long lasting effects.

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Precautionary statements (CLP) : P264 - Wash hands thoroughly after handling.
P280 - Wear protective gloves, protective clothing, eye protection.
P312 - Call a doctor, a POISON CENTER if you feel unwell.

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances

Name : BITTER ALMOND OIL (amygdalus)
CAS-No. : 90320-35-7
EC-No. : 291-060-9

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
BENZALDEHYDE	(CAS-No.) 100-52-7 (EC-No.) 202-860-4 (EC Index-No.) 605-012-00-5	99 – 100	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Aquatic Chronic 3, H412
BENZYL ALCOHOL	(CAS-No.) 100-51-6 (EC-No.) 202-859-9 (EC Index-No.) 603-057-00-5	0 – 0.5	Acute Tox. 4 (Inhalation), H332 Acute Tox. 4 (Oral), H302
CYANHYDRIC ACID	(CAS-No.) 74-90-8 (EC-No.) 200-821-6	0 – 0.01	Flam. Liq. 1, H224 Acute Tox. 1 (Inhalation:gas), H330 Aquatic Chronic 1, H410

Full text of H-statements: see section 16

3.2. Mixtures

Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible). Call a poison center or a doctor if you feel unwell.

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Allow affected person to breathe fresh air. Allow the victim to rest.

First-aid measures after skin contact : Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. Immediately call a POISON CENTER/doctor. Specific measures (see Wash skin with plenty of water on this label). Wash with plenty of water/.... Wash contaminated clothing before reuse. Wash skin with plenty of water. Take off contaminated clothing.

First-aid measures after eye contact : Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persists. Rinse eyes with water as a precaution.

First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention. Call a POISON CENTER/doctor if you feel unwell. Call a poison center or a doctor if you feel unwell.

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

Symptoms/effects after skin contact : Repeated exposure to this material can result in absorption through skin causing significant health hazard. Harmful in contact with skin.

Symptoms/effects after ingestion : Swallowing a small quantity of this material will result in serious health hazard.

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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 : Foam. Dry powder. Carbon dioxide. Water spray. Sand.
Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire : Toxic fumes may be released.

5.3. Advice for firefighters

Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire fighting water from entering the environment.
Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection. Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area. Evacuate unnecessary personnel. Avoid contact with skin, eyes and clothing.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. Equip cleanup crew with proper protection. For further information refer to section 8: "Exposure controls/personal protection".
Emergency procedures : Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters. Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Take up liquid spill into absorbent material. Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.
Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection. For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapour. Do not get in eyes, on skin, or on clothing. Wear personal protective equipment.
Hygiene measures : Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. Wash contaminated clothing before reuse. Always wash hands after handling the product.

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7.2. Conditions for safe storage, including any incompatibilities

Storage conditions	: Keep only in the original container in a cool, well ventilated place away from : Heat sources, Direct sunlight. Keep container closed when not in use. Store in a well-ventilated place. Keep cool.
Incompatible products	: Strong bases. Strong acids.
Incompatible materials	: Sources of ignition. Direct sunlight.
Maximum storage period	: 2 year Shelf life to guarantee the quality and properties of the product; After this period, it is recommended to control organoleptic and physicochemical properties before using the raw material.
Storage temperature	: < 12 (5 – 25) °C

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Exposure controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

Personal protective equipment:

Avoid all unnecessary exposure.

Hand protection:

Wear protective gloves.

Eye protection:

Chemical goggles or safety glasses. Safety glasses

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

Wear appropriate mask

Personal protective equipment symbol(s):



Environmental exposure controls:

Avoid release to the environment.

Other information:

Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid

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Appearance	: Liquid Clear.
Colour	: Colourless. Yellow.
Odour	: characteristic.
Odour threshold	: No data available
pH	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: 59 °C
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Non flammable.
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: 1.035 – 1.055
Solubility	: Poorly soluble in water. Water: at 20 °C
Partition coefficient n-octanol/water (Log Pow)	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

9.2. Other information

Refractive index : 1.535 – 1.555

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Not established.

10.3. Possibility of hazardous reactions

Not established.

10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures.

10.5. Incompatible materials

Strong acids. Strong bases.

10.6. Hazardous decomposition products

fume. Carbon monoxide. Carbon dioxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	: Harmful if swallowed or in contact with skin.
Acute toxicity (dermal)	: Harmful in contact with skin or if inhaled.
Acute toxicity (inhalation)	: Not classified

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BENZALDEHYDE (100-52-7)

LD50 oral rat	1300 mg/kg LD50 oral rat
LD50 oral	28 mg/kg LD50 oral mouse
LD50 dermal rabbit	1250 mg/kg

BENZYL ALCOHOL (100-51-6)

LD50 oral rat	1230 mg/kg
LD50 dermal rabbit	2000 mg/kg

Skin corrosion/irritation	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Serious eye damage/irritation	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Respiratory or skin sensitisation	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Germ cell mutagenicity	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Carcinogenicity	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Reproductive toxicity	: Not classified
Additional information	: Based on available data, the classification criteria are not met
STOT-single exposure	: Not classified
Additional information	: Based on available data, the classification criteria are not met
STOT-repeated exposure	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Aspiration hazard	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Potential adverse human health effects and symptoms	: Harmful if swallowed. Harmful in contact with skin.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	: Harmful to aquatic life with long lasting effects.
Ecology - water	: Harmful to aquatic life with long lasting effects.
Hazardous to the aquatic environment, short-term (acute)	: Not classified
Hazardous to the aquatic environment, long-term (chronic)	: Harmful to aquatic life with long lasting effects.

BENZALDEHYDE (100-52-7)

LC50 fish 1	11 mg/l <i>Oncorhynchus mykiss</i> (Rainbow trout) - 96h
LC50 other aquatic organisms 1	62 mg/l <i>Leuciscus idus</i> (golden orfe) - 48h
EC50 <i>Daphnia</i> 1	50 mg/l EC50 (<i>Daphnia Magna</i>) - 24h
LOEC (chronic)	0.45 mg/l 7d - <i>Pimephales promela</i> (fathead minnow)
NOEC chronic fish	0.22 mg/l 7d - <i>Pimephales promela</i> (fathead minnow)

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BENZYL ALCOHOL (100-51-6)

LC50 fish 1	10 mg/l lepomis macrochirus - 96h
EC50 Daphnia 1	55 mg/l EC50 (Daphnia Magna) - 24h

12.2. Persistence and degradability

BITTER ALMOND OIL (amygdalus) (90320-35-7)

Persistence and degradability	May cause long-term adverse effects in the environment.
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BENZALDEHYDE (100-52-7)

Persistence and degradability	May cause long-term adverse effects in the environment.
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BENZYL ALCOHOL (100-51-6)

Persistence and degradability	Readily biodegradable.
Biodegradation	94 (92 – 96) % Biotic degradation - aerobic

12.3. Bioaccumulative potential

BITTER ALMOND OIL (amygdalus) (90320-35-7)

Bioaccumulative potential	Not established.
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BENZALDEHYDE (100-52-7)

Partition coefficient n-octanol/water (Log Pow)	1.5
Bioaccumulative potential	Not established.

BENZYL ALCOHOL (100-51-6)

Partition coefficient n-octanol/water (Log Pow)	1.1
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12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

Additional information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods	: Dispose of contents/container in accordance with licensed collector's sorting instructions.
Product/Packaging disposal recommendations	: Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.
Ecology - waste materials	: Avoid release to the environment.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

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14.1. UN number

UN-No. (ADR)	: UN 1990
UN-No. (IMDG)	: UN 1990
UN-No. (IATA)	: UN 1990
UN-No. (ADN)	: UN 1990
UN-No. (RID)	: UN 1990

14.2. UN proper shipping name

Proper Shipping Name (ADR)	: BENZALDEHYDE
Proper Shipping Name (IMDG)	: Not applicable
Proper Shipping Name (IATA)	: Not applicable
Proper Shipping Name (ADN)	: Not applicable
Proper Shipping Name (RID)	: Not applicable
Transport document description (ADR)	: UN 1990 BENZALDEHYDE, 9, III, (E)
Transport document description (IMDG)	: UN 1990 , 9
Transport document description (IATA)	: UN 1990 , 9
Transport document description (ADN)	: UN 1990 , 9
Transport document description (RID)	: UN 1990 , 9

14.3. Transport hazard class(es)

ADR

Transport hazard class(es) (ADR)	: 9
Danger labels (ADR)	: 9



IMDG

Transport hazard class(es) (IMDG)	: 9
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IATA

Transport hazard class(es) (IATA)	: 9
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ADN

Transport hazard class(es) (ADN)	: 9
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RID

Transport hazard class(es) (RID)	: 9
Danger labels (RID)	: 9



14.4. Packing group

Packing group (ADR)	: III
Packing group (IMDG)	: Not applicable
Packing group (IATA)	: Not applicable
Packing group (ADN)	: Not applicable
Packing group (RID)	: Not applicable

14.5. Environmental hazards

Dangerous for the environment	: No
Marine pollutant	: No
Other information	: No supplementary information available

14.6. Special precautions for user

Overland transport

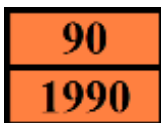
Classification code (ADR)	: M11
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Limited quantities (ADR) : 5I
Excepted quantities (ADR) : E1
Vehicle for tank carriage : AT
Transport category (ADR) : 3
Hazard identification number (Kemler No.) : 90
Orange plates :



Tunnel restriction code (ADR) : E

Transport by sea

No data available

Air transport

No data available

Inland waterway transport

No data available

Rail transport

No data available

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

The following restrictions are applicable according to Annex XVII of the REACH Regulation (EC) No 1907/2006:

Reference code	Applicable on	Entry title or description
3.	BITTER ALMOND OIL (amygdalus) ; BENZALDEHYDE ; BENZYL ALCOHOL	Liquid substances or mixtures which are regarded as dangerous in accordance with Directive 1999/45/EC or are fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008
3(b)	BITTER ALMOND OIL (amygdalus) ; BENZALDEHYDE ; BENZYL ALCOHOL	Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 3.1 to 3.6, 3.7 adverse effects on sexual function and fertility or on development, 3.8 effects other than narcotic effects, 3.9 and 3.10
3(c)	BITTER ALMOND OIL (amygdalus) ; BENZALDEHYDE	Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard class 4.1

BITTER ALMOND OIL (amygdalus) is not on the REACH Candidate List

BITTER ALMOND OIL (amygdalus) is not on the REACH Annex XIV List

BITTER ALMOND OIL (amygdalus) is not subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

BITTER ALMOND OIL (amygdalus) is not subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

15.1.2. National regulations

Germany

Water hazard class (WGK) : Not classified according to Regulation Governing Systems for Handling Substances Hazardous to Waters (AwSV)

Hazardous Incident Ordinance (12. BImSchV) : Is not subject of the Hazardous Incident Ordinance (12. BImSchV)

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

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SECTION 16: Other information

Abbreviations and acronyms:

ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BLV	Biological limit value
CAS-No.	Chemical Abstract Service number
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC50	Median effective concentration
EC-No.	European Community number
EN	European Standard
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OEL	Occupational Exposure Limit
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
vPvB	Very Persistent and Very Bioaccumulative
WGK	Water Hazard Class

Data sources : REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

Other information : None.

Full text of H- and EUH-statements:

Acute Tox. 1 (Inhalation:gas)	Acute toxicity (inhalation:gas) Category 1
Acute Tox. 4 (Dermal)	Acute toxicity (dermal), Category 4
Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Chronic 1	Hazardous to the aquatic environment — Chronic Hazard, Category 1
Aquatic Chronic 3	Hazardous to the aquatic environment — Chronic Hazard, Category 3

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Flam. Liq. 1	Flammable liquids, Category 1
H224	Extremely flammable liquid and vapour.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H330	Fatal if inhaled.
H332	Harmful if inhaled.
H410	Very toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

SDS EU (REACH Annex II)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.