Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

Date last verification	: 2020-01-08	**Version :** 1.3
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SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Safety Data Sheet : 34076

Product name: : TRANS-ALPHA-BERGAMOTENE 80%

Substance name : (1S,5S,6R) -2,6-DIMETHYL-6-(4-METHYLPENT-3-EN-1-YL) BICYCLO[3.1.1]HEPT-2-ENE

Synonyms : A-(E)-BERGAMOTENE
(-)-TRANS-A-BERGAMOTENE
TRANS-A-BERGAMOTENE
(-)-EXO-A-BERGAMOTEEN
(1S,5S,6R)-2,6-DIMETHYL-6-(4-METHYL-3-PENTEN-1-YL)BICYCLO[3.1.1]HEPT-2-ENE
TRANS-A-BERGAMOTEEN
(-)-A-TRANS-BERGAMOTEEN
EXO-A-BERGAMOTENE
BICYCLO[3.1.1]HEPT-2-ENE, 2,6-DIMETHYL-6-(4-METHYL-3-PENTEN-1-YL)-, (1S,5S,6R)-
(-)-EXO-A-BERGAMOTENE
BICYCLO[3.1.1]HEPT-2-EEN, 2,6-DIMETHYL-6-(4-METHYL-3-PENTEN-1-YL)-, (1S,5S,6R)-
A-(E)-BERGAMOTEEN
(1S,5S,6R)-2,6-DIMETHYL-6-(4-METHYLPENT-3-EN-1-YL)BICYCLO[3.1.1]HEPT-2-ENE
[1S-(1A,5A,6A)]-2,6-DIMETHYL-6-(4-METHYL-3-PENTENYL)-BICYCLO[3.1.1]HEPT-2-EEN
EXO-A-BERGAMOTEEN
(-)-A-TRANS-BERGAMOTENE
(1S,5S,6R)-2,6-DIMETHYL-6-(4-METHYL-3-PENTENYL)-BICYCLO[3.1.1]HEPT-2-EEN
TRANS-(-)-2,6-DIMETHYL-6-(4-METHYL-3-PENTENYL)-2-NORPINENE
TRANS-BERGAMOTEEN
(1S,5S,6R)-2,6-DIMETHYL-6-(4-METHYLPENT-3-EN-1-YL)BICYCLO[3.1.1]HEPT-2-EEN
(-)-TRANS-A-BERGAMOTEEN
[1S-(1A,5A,6A)]-2,6-DIMETHYL-6-(4-METHYL-3-PENTENYL)-BICYCLO[3.1.1]HEPT-2-ENE
(1S,5S,6R)-2,6-DIMETHYL-6-(4-METHYL-3-PENTEN-1-YL)BICYCLO[3.1.1]HEPT-2-EEN
2-NORPINENE, 2,6-DIMETHYL-6-(4-METHYL-3-PENTENYL)-, TRANS-(-)
TRANS-(-)-2,6-DIMETHYL-6-(4-METHYL-3-PENTENYL)-2-NORPINEEN
2-NORPINEEN, 2,6-DIMETHYL-6-(4-METHYL-3-PENTENYL)-, TRANS-(-)
(1S,5S,6R)-2,6-DIMETHYL-6-(4-METHYL-3-PENTENYL)-BICYCLO[3.1.1]HEPT-2-ENE

CAS No. : 13474-59-4

EC No. : 603-860-0

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

Relevant identified uses : Flavouring agents

Uses advised against : No information available.

1.3. Details of the supplier of the safety data sheet

Supplier : ISOBIONICS B.V.

Urmonderbaan 22
Building: 45.01.005
6167 RD Geleen
Netherlands

Telephone : +31 (0)433 020212

Responsible for the compilation of the SDS on behalf of the supplier/ manufacturer : hazcom@philips.com

1.4. Emergency telephone number

Emergency telephone number (regarding transport of DG) : +31 (0)497-598315

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Aspiration hazard	Category 1	H304

2.1.2. Additional information

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

2.2. Label elements

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

Hazard pictograms

Signal word : Danger !

Hazard statements

H304	May be fatal if swallowed and enters airways.

Precautionary Statements

P301+P310	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P331	Do NOT induce vomiting.
P405	Store locked up.
P501	Dispose of contents/container according to local hazardous waste disposal regulations.

Hazardous ingredients (1S,5S,6R) -2,6-DIMETHYL-6-(4-METHYLPENT-3-EN-1-YL) BICYCLO[3.1.1]HEPT-2-ENE

Remarks on labelling none.

2.3. Other hazards

No information available.

SECTION 3: Composition / information on ingredients

3.1. Substances

Substance name	CAS No.	EC No.	REACH No.	Concentration	Classification according to Regulation (EC) No 1272/2008 [CLP]
(1S,5S,6R) -2,6-DIMETHYL-6-(4-METHYLPENT-3-EN-1-YL) BICYCLO [3.1.1]HEPT-2-ENE	13474-59-4	603-860-0		≥80.0 - <87.0	GHS08 H304 Asp. Tox. 1

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

SECTION 4: First aid measures

4.1. Description of first aid measures

General information : Remove casualty to fresh air and keep warm and at rest. Remove victim out of the danger area. When in doubt or if symptoms are observed, get medical advice. Do not leave affected person unattended. Remove affected person from the danger area and lay down.

Following inhalation : In case of respiratory tract irritation, consult a physician.

Following skin contact : After contact with skin, wash immediately with plenty of water and soap.

After eye contact : 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 : Rinse mouth thoroughly with water. Give nothing to eat or drink. Call a physician immediately.

Self-protection of the first aider : No special measures are necessary.

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

Following skin contact	**local**	:	The substance is prickling: redness. Degreasing: in case of sustained contact a rough, dry skin, eczema.
	systemic	:	Probably no absorbtion worth mentioning.
After ingestion	**local**	:	The substance is prickling: sore throat. Chance of pulmonary affections if choked.
	systemic	:	Probably no absorbtion worth mentioning.
Following inhalation	**local**	:	The substance is with atomising prickling: sore throat.
	systemic	:	Probably no absorbtion worth mentioning.
After eye contact	**local**	:	The substance is prickling: redness.
Other information		:	The substance has an effect on: the lungs.

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

Notes for the doctor : Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Carbon dioxide (CO2). ▪ Dry extinguishing powder. ▪ Foam. ▪ Water spray jet.

Unsuitable extinguishing media : No information available.

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products

In case of fire may be liberated : Carbon monoxide

5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus. Protective clothing. (EN 469)

5.4. Additional information

Do not allow run-off from fire-fighting to enter drains or water courses.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions : Use personal protection equipment.

6.1.1. For non-emergency personnel

Protective equipment : Wear breathing apparatus if exposed to vapours/dusts/aerosols.

Emergency procedures : not applicable.

6.1.2. For emergency responders

Personal protection equipment : Wear breathing apparatus if exposed to vapours/dusts/aerosols.

6.2. Environmental precautions

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains. Ensure waste is collected and contained.

6.3. Methods and material for containment and cleaning up

6.3.1. For containment

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents).

6.3.2. For cleaning up

Collect in closed and suitable containers for disposal. Clean contaminated articles and floor according to the environmental legislation.

6.3.3. Other information

not determined

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

Protective measures

Advices on safe handling : Provide adequate ventilation.

Measures to prevent fire : No information available.

Measures to prevent aerosol and dust generation : No information available.

Environmental precautions : Avoid release to the environment.

Advices on general occupational hygiene : When using do not eat, drink, smoke, sniff.Take off contaminated clothing.Wash hands before breaks and after work.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions	: Keep/Store only in original container. Keep container tightly closed. ▪ Keep cool. ▪ dry. ▪ Store in a well-ventilated place. ▪ Protect from sunlight. ▪ Keep away from: ignition sources or heat sources. ▪ Handle under inert gas.
storage temperature	: Recommended storage temperature ≥10 - ≤15 °C
Requirements for storage rooms and vessels	: No information available.
Storage class	: No information available.
Materials to avoid	: No information available.
Further information on storage conditions	: No information available.

7.3. Specific end use(s)

Recommendation	: not applicable
Industrial sector specific solutions	: No information available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limit values

Does not contain substances above concentration limits fixing an occupational exposure limit.

Source : TRGS 910, Austrian OEL Regulation, SUVA, Dutch Health Council, 2006/15/EC, 2004/37/EC, Dutch Social-Economic Council (SER), US OSHA, LOLI DB, 2000/39/EC, EU OSHA, GWBB/VLEP, TRGS 900, Gestis, 91/322/EEC, 2017/164/EU, INRS (Fr), ACGIH®, 2009/161/EU, TRGS 905

20 °C, 1013 mbar: European Union / China / South Korea
25 °C, 1013 mbar: United States / Canada / Japan
[x]: appraisal period x minutes
C: peak limitation
H: skin resorptive
S: Statutory threshold limit value
ALARA: As low as reasonably achievable (ALARA principle).

Remark Occupational exposure limit values

none

DNEL (Derived No Effect Level (DNEL-value))

No information available.

PNEC (Predicted No Effect Concentration (PNEC-value))

No information available.

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Provide adequate ventilation as well as local exhaustion at critical locations. Use explosion-proof machinery, apparatus, ventilation facilities, tools etc. Safe handling: see section 7

8.2.2. Personal protection equipment

Eye/face protection	: Eye glasses with side protection.
Skin protection	
Hand protection	: Suitable gloves type: Butyl caoutchouc (butyl rubber).
Body protection	: Overall, Apron, Boots, goggles.
Respiratory protection	: If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn.

8.2.3. Environmental exposure controls

See section 7. No additional measures necessary.

8.3. Additional information

No further relevant information available.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Liquid
Appearance	:	No information available.
Colour	:	colourless ▪ green
Odour	:	like: wood
Odour threshold	:	No information available.
pH	:	not applicable
Melting point/freezing point	:	No information available.
Apparent melting point	:	not applicable
Initial boiling point and boiling range	:	260 ºC
Flash point	:	No information available.
Evaporation rate	:	No information available.
flammability	:	No information available.
Upper/lower flammability or explosive limits		
Upper explosion limit	:	No information available.
Lower explosion limit	:	No information available.
Vapour pressure	:	No information available.
Vapour density	:	No information available.
Relative density	:	0.881 (water=1) (20 °C)
Solubility(ies)		
Water	:	practically insoluble
Partition coefficient: n-octanol/water	:	No information available.
Auto-ignition temperature	:	No information available.
Decomposition temperature	:	No information available.
Viscosity	:	No information available.
Explosive properties:	:	not applicable
Oxidising properties	:	not applicable
Molecular weight	:	204.36
Molecular formula	:	$C_{15}H_{24}$

9.2. Other information

Critical temperature Tc	:	not applicable
Fat solubility	:	No information available.

SECTION 10: Stability and reactivity

10.1. Reactivity

This material is considered to be non-reactive under normal use conditions.

10.2. Chemical stability

The product is chemically stable under recommended conditions of storage, use and temperature.

10.3. Possibility of hazardous reactions

No hazardous reaction when handled and stored according to provisions.

10.4. Conditions to avoid

Stable under recommended storage and handling conditions.

10.5. Incompatible materials

Oxidising substances

10.6. Hazardous decomposition products

No known hazardous decomposition products.

10.7. Additional information

No information available.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity	:	not applicable
After ingestion	:	No
Skin contact	:	No
Inhalation	:	No
Skin corrosion/irritation	:	not applicable
Serious eye damage/eye irritation	:	not applicable
Respiratory or skin sensitisation	:	not applicable

Germ cell mutagenicity		:	not applicable
Carcinogenicity		:	not applicable
Reproductive toxicity		:	not applicable
STOT-single exposure		:	not applicable
STOT-repeated exposure		:	not applicable
Aspiration hazard		:	May be fatal if swallowed and enters airways.

Symptoms

Following skin contact	**local**	:	The substance is prickling: redness. Degreasing: in case of sustained contact a rough, dry skin, eczema.
	systemic	:	Probably no absorbtion worth mentioning.
After ingestion	**local**	:	The substance is prickling: sore throat. Chance of pulmonary affections if choked.
	systemic	:	Probably no absorbtion worth mentioning.
Following inhalation	**local**	:	The substance is with atomising prickling: sore throat.
	systemic	:	Probably no absorbtion worth mentioning.
After eye contact	**local**	:	The substance is prickling: redness.
Other information		:	The substance has an effect on: the lungs.

SECTION 12: Ecological information

12.1. Toxicity

No information available.

12.2. Persistence and degradability

Biodegradation	:	No information available.
Chemical oyxgen demand (COD)	:	No information available.
Biochemical oxygen demand	:	No information available.
BOD5/COD ratio	:	No information available.

12.3. Bioaccumulative potential

No indication of bioaccumulation potential.

Bioconcentration factor (BCF)	:	No information available.
Partition coefficient: n-octanol/water	:	No information available.

12.4. Mobility in soil

No information available.

12.5. Results of PBT and vPvB assessment

No information available.

12.6. Other adverse effects

No information available.

12.7. Additional ecotoxicological information

Observe local regulations concerning effluent treatment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Dispose of contents/container to industrial incineration plant. Following consultation with waste management company and after physico-chemical pre-treatment, landfill together with household waste.

Other disposal recommendations	:	not applicable

SECTION 14: Transport information

14.1. UN number

No dangerous good in sense of these transport regulations.

14.2. UN proper shipping name

No dangerous good in sense of these transport regulations.

14.3. Transport hazard class(es)

No dangerous good in sense of these transport regulations.

14.4. Packing group

No dangerous good in sense of these transport regulations.

14.5. Environmental hazards

Marine pollutant : No

14.6. Special precautions for user

No dangerous good in sense of these transport regulations.

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

No information available.

SECTION 15: Regulatory information

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

International regulations:

Minamata Convention on Mercury : not applicable

EU legislation

Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances [Seveso-III-Directive]

not applicable

This mixture contains the following substances of very high concern (SVHC) which are subject to authorisation according to Annex XIV of REACH:

not applicable

Overall Assessment on CMR properties

according to Regulation (EC) No. 1907/2006 (REACH) : not applicable

Regulation (EC) No 850/2004 [POP-Regulation]

not applicable

Regulation (EC) No. 2037/2000 concerning materials, which cause damage to the ozone layer.

not applicable

Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC).

Observe employment restrictions under the Maternity Protection Directive 92/85/EEC or stricter national regulations, if applicable.

15.2. Chemical Safety Assessment

No information available.

SECTION 16: Other information

Additional information

none

Relevant H-phrases (Number and full text)

H304	May be fatal if swallowed and enters airways.

Abbreviations and acronyms

ACGIH®	American Conference of Governmental Industrial Hygienists
ADR	Accord européen relatif au transport international des marchandises Dangereuses par Route
AICS	Australian Inventory of Chemical Substances
BuAc	n-Butyl acetate
CAS	Chemical Abstracts Service
CCID	New Zealand Chemical Classification and Information Database
DSL	Canada Domestic Substances List
ECHA-RAC	ECHA Committee for Risk Assessment
EFSA	European Food Safety Authority
EHSP	OECD Environment, Health, and Safety Publication

EmS	Emergency Schedule
EU-CLH	European Union Harmonised Classification and Labelling
GESTIS	Databases on hazardous substances of the German Social Accident Insurance
GHS	Globally Harmonised System of Classification and Labelling of Chemicals
GWBB-VLEP	Grenswaarden voor beroepsmatige blootstelling/Valeurs limites d'exposition professionnelle
HHS	U.S. Department of Health and Human Services
HSDB	Hazardous Substances Data Bank
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods
IMO	International Maritime Organization
INRS	French National Research and Safety Institute for the Prevention of Occupational Accidents and Diseases
JP-GHS	Japan GHS Basis for Classification Data
KHC	Known human carcinogens.
LEL	Lower explosion limit
LOLI	LOLI (List of Lists) Database
n.a.	not applicable
NDSL	Canada Non-domestic Substance List
NICNAS	Australia National Industrial Chemicals Notification and Assessment Scheme
NIER	South Korea National Institute of Environmental Research Evaluations
NLM	United States National Library of Medicine
NTP	National Toxicology Program
NZIoC	New Zealand Inventory of Chemicals
OECD	Organisation for Economic Co-operation and Development
OSHA	Occupational Safety & Health Administration
OUE	European Odour Unit
RAHC	Reasonably Anticipated Human Carcinogen
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SCOEL	Scientific Committee on Occupational Exposure Limits (EU)
SIDS	OECD Screening Information Data Sets
SUVA	Swiss Accident Insurance Fund
TRGS	Technische Regeln für Gefahrstoffe
TSCA	The Toxic Substances Control Act Chemical Substance Inventory
TWA	Time Weighted Average
UEL	Upper explosion limit
UN	United Nations
US-EPA	United States Environmental Protection Agency