

SILVIAL

Version 11.0

Revision Date 25 JUL 2018

Print Date 06 DEC 2018

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

1.1 Product identifier

Sales No. : 0012543
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Substance name : 3-(4-isobutylphenyl)-2-methylpropanal
Identifier

CAS-No. : 6658-48-6
EC-No. : 229-695-0

REACH Registration Number : 01-2120770116-58-0000

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

Intended Use Fragrances : Perfumery ingredient

1.3 Details of the supplier of the safety data sheet

Company :
Givaudan Suisse SA
Chemin de la Parfumerie 5
CH-1214 VERNIER

Telephone : +41227809111
Telefax : +41227809150
E-mail address : global.msds_fragrances_raps@givaudan.com
Responsible/issuing person

1.4 Emergency telephone number

+33172110003
Please refer to section 16 for a full list of emergency phone numbers.

SECTION 2. Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Skin irritation, Category 2	H315: Causes skin irritation.
Skin sensitisation, Sub-category 1B	H317: May cause an allergic skin reaction.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)


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Hazard pictograms	:		
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Signal word	:	Warning	
Hazard statements	:	H315 H317	Causes skin irritation. May cause an allergic skin reaction.
Precautionary statements	:	Prevention: P261 P264 P280 Response: P333 + P313 P362 + P364 Disposal: P501	Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray. Wash skin thoroughly after handling. Wear protective gloves. If skin irritation or rash occurs: Get medical advice/ attention. Take off contaminated clothing and wash it before reuse. Dispose of contents/ container to an approved waste disposal plant.

Hazardous components which must be listed on the label:

- 3-(4-isobutylphenyl)-2-methylpropanal 6658-48-6

2.3 Other hazards

Hazards not Otherwise Classified. : None

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

SECTION 3. Composition/information on ingredients

3.1 Substances

Chemical name	CAS-No. EC-No. REACH Registration Number	Concentration [Percent by weight]
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3-(4-isobutylphenyl)-2-
methylpropanal

6658-48-6
229-695-0
01-2120770116-58

>= 90 - <= 100

SECTION 4. First aid measures

4.1 Description of first aid measures

- General advice : Move out of dangerous area.
Show this safety data sheet to the doctor in attendance.
Do not leave the victim unattended.
- If inhaled : If unconscious, place in recovery position and seek medical advice.
If symptoms persist, call a physician.
- In case of skin contact : If skin irritation persists, call a physician.
If on skin, rinse well with water.
If on clothes, remove clothes.
- In case of eye contact : Remove contact lenses.
Immediately flush eyes for at least 15 minutes. Get medical attention.
- If swallowed : Keep respiratory tract clear.
Do not give milk or alcoholic beverages.
Never give anything by mouth to an unconscious person.
If symptoms persist, call a physician.

4.2 Most important symptoms and effects, both acute and delayed

- Symptoms : no data available
Risks : no data available

4.3 Indication of any immediate medical attention and special treatment needed

- Treatment : no data available

SECTION 5. Firefighting measures

5.1 Extinguishing media

- Suitable extinguishing media : Dry chemical
Alcohol-resistant foam
Carbon dioxide (CO₂)
Water spray

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Unsuitable extinguishing media : High volume water jet

5.2 Special hazards arising from the substance or mixture

Specific hazards during firefighting : no data available

5.3 Advice for firefighters

Special protective equipment for firefighters : Wear self-contained breathing apparatus for firefighting if necessary.

Further information : Standard procedure for chemical fires.
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

SECTION 6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : no data available

6.2 Environmental precautions

Environmental precautions : Prevent product from entering drains.
If the product contaminates rivers and lakes or drains inform respective authorities.

6.3 Methods and materials for containment and cleaning up

Methods for cleaning up : Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).
Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

Not applicable

SECTION 7. Handling and storage

7.1 Precautions for safe handling

Advice on safe handling : Do not breathe vapours/dust.
Avoid exposure - obtain special instructions before use.
Avoid contact with skin and eyes.
For personal protection see section 8.
Smoking, eating and drinking should be prohibited in the application area.
Dispose of rinse water in accordance with local and national regulations.

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Advice on protection against fire and explosion : Normal measures for preventive fire protection.
Temperature class : no data available
Fire-fighting class : no data available
Dust explosion class : no data available

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : Keep container tightly closed in a dry and well-ventilated place.
Electrical installations / working materials must comply with the technological safety standards.
Further information on storage conditions : Ambient / 10-30°C (50-85°F)
Dry, well ventilated, preferably full, hermetically sealed
Advice on common storage : Protect against light.
German storage class : no data available
Other data : No decomposition if stored and applied as directed.

7.3 Specific end use(s)

Specific use(s) : no data available

SECTION 8. Exposure controls/personal protection

8.1 Control parameters

Contains no substances with occupational exposure limit values.

8.2 Exposure controls

Personal protective equipment

Respiratory protection : Use only in well-ventilated areas.
Hand protection : Use gloves when handling substance in open systems.
Inspect gloves prior to use. Train operators for proper use.
If only incidental exposure is expected: (work without direct contact to substance) use gloves tested according EN 16523-1 breakthrough times at least 10 minutes, tested for chemicals indicated in chapter 3 of this SDS. Change gloves frequently.
If direct skin contact is expected: use gloves tested according to EN 16523-1, tested for chemicals indicated in chapter 3 of this SDS. Permeation time must exceed contact time.
Eye protection : Use safety glasses and faceshield tested according to EN

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Skin and body protection : Wear working clothes covering arms and legs.
The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace. Use apron or complete chemical suit if exposure is expected.

Hygiene measures : Do not eat, drink or smoke during work.
Wash and dry hands after finished working.

Protective measures : Exposure assessment: Exposure is dependent on the product being handled, the potential for chemical release, and any resulting airborne concentrations or dermal contact. Since product handling and release scenarios vary, and no two workplaces are exactly alike, it is recommended that the potential for exposure be assessed prior to the product's use or introduction. Exposure assessments should be performed by an occupational hygienist, industrial hygienist, or other qualified occupational or environmental health professional. An exposure assessment should be conducted to determine the efficacy of any ventilation and the need for additional respiratory protection.
PPE is always the last resort to avoid exposure. In any case technical and organisational measures have to be explored and used prior to the selection of PPE. The PPE selection is for operators trained to work with chemicals according to good industrial hygiene and safety practice. Operators have to be trained and used to PPE handling.

Environmental exposure controls

General advice : Prevent product from entering drains.
If the product contaminates rivers and lakes or drains inform respective authorities.

SECTION 9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state : liquid
Form : liquid
Colour : colorless to Pale yellow
Taste : not determined
Odour : Floral, Aldehydic, Lily-of-the-valley, fatty odour
Odour Threshold : 0,7045 ng/l
Flash point : 70 °C Method: Pinsky-Martens closed cup
Lower explosion limit : not determined

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Upper explosion limit	: not determined
Flammability (solid, gas)	: no data available
Oxidizing properties	: Unlikely
Auto-ignition temperature	: 360 °C Method: DIN 51794
Decomposition temperature	: no data available
Molecular weight	: 204,30 g/mol
pH	: no data available
Melting point	: 4 °C
Boiling point	: 257 °C at 1 013 hPa
Vapour pressure	: 0,0029 hPa at 25 °C 0,0017 hPa at 20 °C
Density	: 935,31 kg/m ³ at 20 °C
Bulk density	: Not applicable
Water solubility	: 2,76 mg/l at 25 °C
Solubility/qualitative	: insoluble
Partition coefficient: n-octanol/water	: log Pow: 3,8 Method: OECD Test Guideline 117
Viscosity, kinematic	: no data available
Relative vapour density	: no data available
Surface tension	: 42,1 mN/m at 20 °C Method: OECD Test Guideline 115
Evaporation rate	: no data available
Explosive properties	: Not explosive

9.2 Other information

Not applicable

SECTION 10. Stability and reactivity

10.1 Reactivity

none

10.2 Chemical stability

The product is chemically stable.

10.3 Possibility of hazardous reactions

Hazardous reactions : No decomposition if stored and applied as directed.

10.4 Conditions to avoid

Conditions to avoid : no data available

10.5 Incompatible materials

Materials to avoid : no data available

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10.6 Hazardous decomposition products

Hazardous decomposition products : no data available
Thermal decomposition : no data available

SECTION 11. Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Acute oral toxicity : LD50 Rat
Dose: > 5 000 mg/kg

Acute inhalation toxicity : LC50 Rat
Exposure time: 4 h
Dose: > 5,00 mg/l
Method: OECD Test Guideline 436

Acute dermal toxicity : LD50 Rat
Dose: > 5 000 mg/kg

Acute toxicity (other routes of administration) : No data is available on the product itself.

Skin corrosion/irritation

Skin irritation : Species: In vitro
Skin irritation
Method: OECD Test Guideline 439

Serious eye damage/eye irritation

Eye irritation : Species: In vitro
No eye irritation
Method: OECD Test Guideline 437

Respiratory or skin sensitisation

Sensitisation : LLNA Mouse
Result: The product is a skin sensitiser, sub-category 1B.
Method: OECD Test Guideline 429

Germ cell mutagenicity

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Genotoxicity in vitro : Ames test
negative
Method: Mutagenicity (Salmonella typhimurium - reverse mutation assay)

In vitro mammalian cell gene mutation test
negative
Method: OECD Test Guideline 490

Micronucleus test
negative
Method: OECD Test Guideline 487

Carcinogenicity

Carcinogenicity : No data is available on the product itself.

Reproductive toxicity

Reproductive toxicity : No data is available on the product itself.

Teratogenicity

Remarks : No toxicity to reproduction

Target Organ Systemic Toxicant - Single exposure

Target Organ Systemic Toxicant - Single exposure : No data is available on the product itself.

Target Organ Systemic Toxicant - Repeated exposure

Target Organ Systemic Toxicant - Repeated exposure : Species: Rat
Application Route: Oral
NOAEL: 300 mg/kg
Method: OECD Test Guideline 410

Aspiration hazard

Aspiration toxicity : No data is available on the product itself.

Toxicology Assessment

Phototoxicity

Phototoxicity : Phototoxicity Guinea pig
Result:negative

Further information

: no data available

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SECTION 12. Ecological information

12.1 Toxicity

- Toxicity to fish : LC50: 11,3 mg/l
Exposure time: 96 h
Species: Danio rerio (zebra fish)
semi-static test Method: OECD Test Guideline 203
- Toxicity to daphnia and other aquatic invertebrates : LC50: 4,71 mg/l
Exposure time: 48 h
Species: Daphnia magna (Water flea)
semi-static test Method: OECD Test Guideline 202
- Toxicity to algae : ErC50: 1,44 mg/l
Exposure time: 72 h
Species: Pseudokirchneriella subcapitata (green algae)
static test Method: OECD Test Guideline 201
- : EC10: 1,16 mg/l
Exposure time: 72 h
Species: Pseudokirchneriella subcapitata (algae)
static test Method: OECD Test Guideline 201
- Toxicity to bacteria : no data available
Toxicity to fish (Chronic toxicity) : no data available
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : no data available

Ecotoxicology Assessment

- Acute aquatic toxicity : no data available
Chronic aquatic toxicity : This product has no known ecotoxicological effects.
- Toxicity Data on Soil : no data available
Other organisms relevant to the environment : no data available

12.2 Persistence and degradability

- Biodegradability : Result: Readily biodegradable.
76 %
Method: OECD Test Guideline 301 F

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12.3 Bioaccumulative potential

Bioaccumulation : no data available

12.4 Mobility in soil

Mobility : no data available
Distribution among environmental compartments : log Koc: 3,2
Method: OECD Test Guideline 121

Additional advice : no data available
Environmental fate and pathways
Physico-chemical removability : no data available

12.5 Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Other adverse effects

Biochemical Oxygen Demand (BOD) : no data available
Dissolved organic carbon (DOC) : no data available
Chemical Oxygen Demand (COD) : no data available
Adsorbed organic bound halogens (AOX) : no data available
Additional ecological information : no data available

SECTION 13. Disposal considerations

13.1 Waste treatment methods

Product : Do not dispose of waste into sewer.
Do not contaminate ponds, waterways or ditches with chemical or used container.
Send to a licensed waste management company.

Contaminated packaging : Empty remaining contents.
Dispose of as unused product.
Do not re-use empty containers.

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Dispose of in accordance with local regulations.

SECTION 14. Transport information

14.1 UN number

N/A

14.2 UN proper shipping name

Not regulated as a dangerous good

14.3 Transport hazard class(es)

N/A

14.4 Packing group

N/A

14.5 Environmental hazards

N/A

14.6 Special precautions for user

IMDG

IMDG Code Segregation : None
Group

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

Not applicable for product as supplied.

SECTION 15. Regulatory information

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

Major Accident Hazard : Not applicable
Legislation

Water contaminating class : WGK 2 significantly water endangering
(Germany) Code Number: 6 917

15.2 Chemical safety assessment

A Chemical Safety Assessment is not required for this substance.

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SECTION 16. Other information

Full text of H-Statements referred to under sections 2 and 3.

H315 Causes skin irritation.
H317 May cause an allergic skin reaction.

Full list of Emergency response numbers worldwide.

	Country	Phone nr		Country	Phone nr
Europe	All Europe	+44 1235 239670	APAC	All East/South East Asia	+65 3158 1074
	France	+33 1 72 11 00 03		Sri Lanka	+65 3158 1195
	Germany	+49 69 222 25285		Taiwan	+886 2 8793 3212
	Spain	+34 91 114 2520		Japan	+81 3 4578 9341
	Italy	+39 02 3604 2884		Indonesia	007 803 011 0293
	Netherlands	+31 10 713 8195		Malaysia	+60 3 6207 4347
	Turkey	+90 212 375 5231		Thailand	001 800 120 666 751
	Norway	+47 2103 4452		India	+65 3158 1198 000 800 100 7479
	Greece	+30 21 1198 3182		Pakistan	+65 3158 1329
	Portugal	+351 30880 4750		Bangladesh	+65 3158 1200
	Denmark	+45 8988 2286		Philippines	+63 2 231 2149
	Sweden	+46 8 566 42573		Vietnam	+84 28 4458 2388
	Poland	+48 22 307 3690		Korea	+65 3158 1285
	Czech republic	+420 228 882 830		South Korea	+82 2 3479 8401
Finland	+358 9 7479 0199	Australia	+61 2 8014 4558		
Middle East/Africa	All Middle East/Africa	+44 1235 239671	LATAM	New Zealand	+64 9 929 1483
	Bahrain and Middle East	+973 1619 8321		China	+86 532 8388 9090
	Africa/South Africa	+27 21 300 2732		Mexico	+52 55 5004 8763
NOAM	USA and Canada	+1 866 928 0789	LATAM	Brazil	+55 11 3197 5891
	USA and Canada	+1 215 207 0061		Chile	+56 2 2582 9336
	USA and Canada	+1 202 464 2554		Colombia	+57 1 508 7337
Global	Global	+44 1865 407333		Argentina	+54 11 5984 3690

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SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Givaudan

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Key or legend to abbreviations and acronyms used in the safety data sheet

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; AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECl - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of Very High Concern; TCSI - Taiwan Chemical Substance Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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