

Safety data sheet

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BASF Safety data sheet according to Regulation (EC) No. 1907/2006 as amended from time to time.

Date / Revised: 24.10.2016

Version: 5.0

Product: **Geranyl Acetate Extra**

(ID no. 30292732/SDS_GEN_EU/EN)

Date of print 25.10.2016

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

1.1. Product identifier

Geranyl Acetate Extra

Chemical name: Geranyl acetate

CAS Number: 105-87-3

REACH registration number: 01-2119973480-35-0000

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

Relevant identified uses: Chemical, Chemical for detergents, Cosmetic and oral care chemical, flavoring substance

Recommended use: Chemical, flavoring substance, Chemical for detergents, Cosmetic and oral care chemical

For the detailed identified uses of the product see appendix of the safety data sheet.

1.3. Details of the supplier of the safety data sheet

Company:

BASF SE

67056 Ludwigshafen

GERMANY

Operating Division Nutrition and Health

Telephone: +49 621 60-48434

E-mail address: EN-global-safety-data@basf.com

1.4. Emergency telephone number

International emergency number:

Telephone: +49 180 2273-112

SECTION 2: Hazards Identification

2.1. Classification of the substance or mixture

According to Regulation (EC) No 1272/2008 [CLP]

Skin Corr./Irrit. 2
Skin Sens. 1
Aquatic Chronic 3

H315, H317, H412

For the classifications not written out in full in this section the full text can be found in section 16.

2.2. Label elements

Globally Harmonized System, EU (GHS)

Pictogram:



Signal Word:
Warning

Hazard Statement:

H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H412	Harmful to aquatic life with long lasting effects.

Precautionary Statements (Prevention):

P280	Wear protective gloves.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P273	Avoid release to the environment.
P272	Contaminated work clothing should not be allowed out of the workplace.
P264	Wash with plenty of water and soap thoroughly after handling.

Precautionary Statements (Response):

P333 + P311	If skin irritation or rash occurs: Call a POISON CENTER or doctor/physician.
P303 + P352	IF ON SKIN (or hair): Wash with plenty of soap and water.
P332 + P313	If skin irritation occurs: Get medical advice/attention.
P362 + P364	Take off contaminated clothing and wash it before reuse.

Precautionary Statements (Disposal):

P501 Dispose of contents/container to hazardous or special waste collection point.

2.3. Other hazards

According to Regulation (EC) No 1272/2008 [CLP]

If applicable information is provided in this section on other hazards which do not result in classification but which may contribute to the overall hazards of the substance or mixture.

SECTION 3: Composition/Information on Ingredients

3.1. Substances

Chemical nature

Geranyl acetate

CAS Number: 105-87-3

EC-Number: 203-341-5

For the classifications not written out in full in this section, including the hazard classes and the hazard statements, the full text is listed in section 16.

3.2. Mixtures

Not applicable

SECTION 4: First-Aid Measures

4.1. Description of first aid measures

Remove contaminated clothing.

If inhaled:

Keep patient calm, remove to fresh air, seek medical attention.

On skin contact:

After contact with skin, wash immediately with plenty of water and soap. If irritation develops, seek medical attention.

On contact with eyes:

Wash affected eyes for at least 15 minutes under running water with eyelids held open. Seek medical attention.

On ingestion:

Rinse mouth immediately and then drink plenty of water, seek medical attention.

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

Symptoms: The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11.

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

Treatment: Treat according to symptoms (decontamination, vital functions), no known specific antidote.

SECTION 5: Fire-Fighting Measures

5.1. Extinguishing media

Suitable extinguishing media:

foam, carbon dioxide, dry powder, water spray

5.2. Special hazards arising from the substance or mixture

Burning produces harmful and toxic fumes.

5.3. Advice for fire-fighters

Special protective equipment:

Wear a self-contained breathing apparatus.

Further information:

Collect contaminated extinguishing water separately, do not allow to reach sewage or effluent systems. Contaminated extinguishing water must be disposed of in accordance with official regulations. If exposed to fire, keep containers cool by spraying with water.

5.4. Environmental exposure controls

Do not discharge product into the environment without control.

SECTION 6: Accidental Release Measures

6.1. Personal precautions, protective equipment and emergency procedures

Avoid contact with skin and eyes. Use personal protective clothing. Ensure adequate ventilation.

6.2. Environmental precautions

Do not discharge into drains/surface waters/groundwater.

6.3. Methods and material for containment and cleaning up

For large amounts: Dike spillage. Pump off product.

For residues: Pick up with suitable absorbent material (e.g. sand, sawdust, general-purpose binder, kieselguhr). Dispose of contaminated material as prescribed.

6.4. Reference to other sections

Information regarding exposure controls/personal protection and disposal considerations can be found in section 8 and 13.

SECTION 7: Handling and Storage

7.1. Precautions for safe handling

Wear suitable protective clothing and gloves. Ensure thorough ventilation of stores and work areas. Keep container tightly closed.

Protection against fire and explosion:

Prevent electrostatic charge - sources of ignition should be kept well clear - fire extinguishers should be kept handy.

Temperature class: T3 (Autoignition temperature >200 °C).

7.2. Conditions for safe storage, including any incompatibilities

Further information on storage conditions: Keep only in the original container in a cool, well-ventilated place. Keep container tightly closed.

7.3. Specific end use(s)

For the relevant identified use(s) listed in Section 1 the advice mentioned in this section 7 is to be observed.

SECTION 8: Exposure Controls/Personal Protection

8.1. Control parameters

Components with occupational exposure limits

| No occupational exposure limits known.

PNEC

freshwater: 3.72 mg/l

marine water: 0.372 mg/l

intermittent release: 37.2 mg/l

STP: 8 mg/l

sediment (freshwater): 0.442 mg/kg

sediment (marine water): 0.0442 mg/kg

soil: 0.0859 mg/kg

oral (secondary poisoning):

No PNEC value available.

DNEL

worker:

Long-term exposure- systemic effects, Inhalation: 62.59 mg/m³

worker:

Long-term exposure- systemic effects, dermal: 35.5 mg/kg

consumer:

Long-term exposure- systemic effects, Inhalation: 15.4 mg/m³

consumer:

Long-term exposure- systemic effects, dermal: 17.75 mg/kg

consumer:

Long-term exposure- systemic effects, oral: 8.9 mg/kg

8.2. Exposure controlsPersonal protective equipment

Respiratory protection:

Respiratory protection in case of vapour/aerosol release. Gas filter for gases/vapours of organic compounds (boiling point >65 °C, e. g. EN 14387 Type A)

Hand protection:

Suitable chemical resistant safety gloves (EN 374) also with prolonged, direct contact (Recommended: Protective index 6, corresponding > 480 minutes of permeation time according to EN 374): E.g. nitrile rubber (0.4 mm), chloroprene rubber (0.5 mm), butyl rubber (0.7 mm) etc. Supplementary note: The specifications are based on tests, literature data and information of glove manufacturers or are derived from similar substances by analogy. Due to many conditions (e.g. temperature) it must be considered, that the practical usage of a chemical-protective glove in practice may be much shorter than the permeation time determined through testing.

Eye protection:

Safety glasses with side-shields (frame goggles) (e.g. EN 166)

Body protection:

Body protection must be chosen based on level of activity and exposure.

General safety and hygiene measures

Do not breathe vapour/spray. Avoid contact with skin and eyes. Handle in accordance with good industrial hygiene and safety practice.

Environmental exposure controls

For information regarding environmental exposure controls, see Section 6.

SECTION 9: Physical and Chemical Properties**9.1. Information on basic physical and chemical properties**

Form:	liquid	
Colour:	colourless	
Odour:	sweetish	
Odour threshold:	< 100 ppm	
pH value:		
	not applicable	
Melting point:	< -100 °C	(OECD Guideline 102)
	(1,013 hPa)	
Boiling point:	243.97 °C	(measured)
	(1,013.25 hPa)	
Flash point:	109.5 °C	(DIN 51758, closed cup)
Evaporation rate:		
	not determined	
Flammability:	not flammable	
Lower explosion limit:	0.5 %(V)	
	(95.2 °C, 5.5 hPa)	
Upper explosion limit:	4.0 %(V)	
	(138.2 °C, 38.9 hPa)	
Ignition temperature:	252 °C	(DIN EN 14522)
Vapour pressure:	0.4 mbar	
	(50 °C)	
Density:	0.912 g/cm ³	
	(25 °C)	
Relative density:	0.915	
	(20 °C, 1,013 hPa)	
Relative vapour density (air):		
	not determined	
Solubility in water:		(OECD Guideline 105)
	29 mg/l	
	(20 °C)	
Solubility (qualitative) solvent(s):	organic solvents	
	soluble	
Partitioning coefficient n-octanol/water (log K _{ow}):	4.5	(calculated)
	(25 °C)	
	4.04	(measured)
Self ignition:	Based on its structural properties the product is not classified as self-igniting.	Test type: Spontaneous self-ignition at room-temperature.
Thermal decomposition:	301 °C, 490 kJ/kg, (DSC (DIN 51007))	
Viscosity, dynamic:	2.47 mPa.s	(OECD 114)
	(20 °C)	
	1.68 mPa.s	(OECD 114)
	(40 °C)	
Viscosity, kinematic:	2.71 mm ² /s	(OECD 114)
	(20 °C)	

Explosion hazard: 1.88 mm²/s
(40 °C)
Based on the chemical structure there is no indicating of explosive properties.

Fire promoting properties: Based on its structural properties the product is not classified as oxidizing.

(OECD 114)

9.2. Other information

Self heating ability: It is not a substance capable of spontaneous heating.

pK_A:

Study scientifically not justified.

Adsorption/water - soil: KOC: 1151; log KOC: 3.06

(calculated)

Surface tension:

Based on chemical structure, surface activity is not to be expected.

Grain size distribution: The substance / product is marketed or used in a non solid or granular form.

Molar mass: 196.29 g/mol

SECTION 10: Stability and Reactivity

10.1. Reactivity

Corrosion to metals: Corrosive effects to metal are not anticipated.

Formation of flammable gases: Remarks: Forms no flammable gases in the presence of water.

10.2. Chemical stability

The product is stable if stored and handled as prescribed/indicated.

10.3. Possibility of hazardous reactions

No hazardous reactions if stored and handled as prescribed/indicated.

10.4. Conditions to avoid

Avoid all sources of ignition: heat, sparks, open flame.

10.5. Incompatible materials

Substances to avoid:
mineral acids

10.6. Hazardous decomposition products

Hazardous decomposition products:
No data available.

SECTION 11: Toxicological Information

11.1. Information on toxicological effects

Acute toxicity

Assessment of acute toxicity:

Virtually nontoxic after a single ingestion. Virtually nontoxic after a single skin contact. The product has not been fully tested. The statements have been derived in parts from products of a similar structure or composition.

Experimental/calculated data:

LD50 rat (oral): 6,330 mg/kg

LD50 rabbit (dermal): > 5,460 mg/kg

The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Irritation

Assessment of irritating effects:

Skin contact causes irritation. Not irritating to the eyes. The product has not been fully tested. The statements have been derived in parts from products of a similar structure or composition.

Experimental/calculated data:

Skin corrosion/irritation rabbit: Irritant. (Draize test)

Skin corrosion/irritation rabbit: Irritant. (OECD Guideline 404)

The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Serious eye damage/irritation rabbit: non-irritant (OECD Guideline 405)

The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Respiratory/Skin sensitization

Assessment of sensitization:

May cause sensitization by skin contact.

Experimental/calculated data:

mouse: skin sensitizing (OECD Guideline 429)

Germ cell mutagenicity

Assessment of mutagenicity:

In the majority of tests performed (bacteria/microorganisms/cell cultures) a mutagenic effect was not found. A mutagenic effect was also not observed in in-vivo assays.

Carcinogenicity

Assessment of carcinogenicity:

In long-term studies in rats and mice in which the substance was given by gavage, a carcinogenic effect was not observed. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Reproductive toxicity

Assessment of reproduction toxicity:

The results of animal studies gave no indication of a fertility impairing effect. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Developmental toxicity

Assessment of teratogenicity:

In animal studies the substance did not cause malformations. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Specific target organ toxicity (single exposure)

Assessment of STOT single:

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

Repeated dose toxicity and Specific target organ toxicity (repeated exposure)

Assessment of repeated dose toxicity:

No substance-specific organotoxicity was observed after repeated administration to animals. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Aspiration hazard

No aspiration hazard expected.

SECTION 12: Ecological Information

12.1. Toxicity

Assessment of aquatic toxicity:

Acutely toxic for aquatic organisms. The inhibition of the degradation activity of activated sludge is not anticipated when introduced to biological treatment plants in appropriate low concentrations.

Toxicity to fish:

LC50 (96 h) 68.12 mg/l, *Cyprinus carpio* (OECD Guideline 203, static)

The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Aquatic invertebrates:

EC50 (48 h) 14.1 mg/l, *Daphnia magna* (Directive 84/449/EEC, C.2, static)

The statement of the toxic effect relates to the analytically determined concentration.

Aquatic plants:

No observed effect concentration (72 h) 0.585 mg/l (growth rate), *Desmodemus subspicatus* (OECD Guideline 201, static)

The statement of the toxic effect relates to the analytically determined concentration.

Microorganisms/Effect on activated sludge:

EC10 (30 min) > 10,000 mg/l, *Pseudomonas putida* (DIN 38412 Part 27 (draft), aquatic)

The details of the toxic effect relate to the nominal concentration. The product has low solubility in the test medium. An aqueous solution prepared with solubilizers has been tested.

Chronic toxicity to fish:

No data available.

Chronic toxicity to aquatic invertebrates:

No data available.

Assessment of terrestrial toxicity:

No data available concerning terrestrial toxicity.

Soil living organisms:

No data available.

Terrestrial plants:

No data available.

Other terrestrial non-mammals:

No data available.

12.2. Persistence and degradability

Assessment biodegradation and elimination (H₂O):

Readily biodegradable (according to OECD criteria).

Elimination information:

> 70 % BOD of the ThOD (28 d) (OECD Guideline 301 F) (aerobic, activated sludge, domestic)

Assessment of stability in water:

In contact with water the substance will hydrolyse slowly.

Information on Stability in Water (Hydrolysis):

$t_{1/2}$ 1,539 h (25 °C, pH value 7), (OECD Guideline 111, pH 7)

12.3. Bioaccumulative potential

Assessment bioaccumulation potential:

Significant accumulation in organisms is not to be expected.

12.4. Mobility in soil

Assessment transport between environmental compartments:

Volatility: The substance will rapidly evaporate into the atmosphere from the water surface.

Adsorption in soil: Adsorption to solid soil phase is expected.

12.5. Results of PBT and vPvB assessment

According to Annex XIV of Regulation (EC) No.1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH): The product does not contain a substance fulfilling the PBT (persistent/bioaccumulative/toxic) criteria or the vPvB (very persistent/very bioaccumulative) criteria. Self classification

12.6. Other adverse effects

The substance is not listed in Regulation (EC) 1005/2009 on substances that deplete the ozone layer.

SECTION 13: Disposal Considerations

13.1. Waste treatment methods

Observe national and local legal requirements.

SECTION 14: Transport Information

Land transport

ADR

	Not classified as a dangerous good under transport regulations
UN number:	Not applicable
UN proper shipping name:	Not applicable
Transport hazard class(es):	Not applicable
Packing group:	Not applicable
Environmental hazards:	Not applicable
Special precautions for user	None known

RID

	Not classified as a dangerous good under transport regulations
UN number:	Not applicable
UN proper shipping name:	Not applicable

Transport hazard class(es): Not applicable
Packing group: Not applicable
Environmental hazards: Not applicable
Special precautions for user: None known

Inland waterway transport

ADN

Not classified as a dangerous good under transport regulations
UN number: Not applicable
UN proper shipping name: Not applicable
Transport hazard class(es): Not applicable
Packing group: Not applicable
Environmental hazards: Not applicable
Special precautions for user: None known

Transport in inland waterway vessel

Not evaluated

Sea transport

IMDG

Not classified as a dangerous good under transport regulations
UN number: Not applicable
UN proper shipping name: Not applicable
Transport hazard class(es): Not applicable
Packing group: Not applicable
Environmental hazards: Not applicable
Special precautions for user: None known

Air transport

IATA/ICAO

Not classified as a dangerous good under transport regulations
UN number: Not applicable
UN proper shipping name: Not applicable
Transport hazard class(es): Not applicable
Packing group: Not applicable
Environmental hazards: Not applicable
Special precautions for user: None known

14.1. UN number

See corresponding entries for "UN number" for the respective regulations in the tables above.

14.2. UN proper shipping name

See corresponding entries for "UN proper shipping name" for the respective regulations in the tables above.

14.3. Transport hazard class(es)

See corresponding entries for "Transport hazard class(es)" for the respective regulations in the tables above.

14.4. Packing group

See corresponding entries for "Packing group" for the respective regulations in the tables above.

14.5. Environmental hazards

See corresponding entries for "Environmental hazards" for the respective regulations in the tables above.

14.6. Special precautions for user

See corresponding entries for "Special precautions for user" for the respective regulations in the tables above.

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

Regulation:	Not evaluated
Shipment approved:	Not evaluated
Pollution name:	Not evaluated
Pollution category:	Not evaluated
Ship Type:	Not evaluated

SECTION 15: Regulatory Information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**Prohibitions, Restrictions and Authorizations

Annex XVII of Regulation (EC) No 1907/2006: Number on List: 3

If other regulatory information applies that is not already provided elsewhere in this safety data sheet, then it is described in this subsection.

15.2. Chemical Safety Assessment

Chemical Safety Assessment performed

SECTION 16: Other Information

Assessment of the hazard classes according to UN GHS criteria (most recent version)

Skin Corr./Irrit. 2
Aquatic Acute 2
Skin Sens. 1
Aquatic Chronic 3

Any other intended applications should be discussed with the manufacturer. Corresponding occupational protection measurements must be followed.

Full text of the classifications, including the hazard classes and the hazard statements, if mentioned in section 2 or 3:

Skin Corr./Irrit.	Skin corrosion/irritation
Skin Sens.	Skin sensitization
Aquatic Chronic	Hazardous to the aquatic environment - chronic
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H412	Harmful to aquatic life with long lasting effects.

The data contained in this safety data sheet are based on our current knowledge and experience and describe the product only with regard to safety requirements. This safety data sheet is neither a Certificate of Analysis (CoA) nor technical data sheet and shall not be mistaken for a specification agreement. Identified uses in this safety data sheet do neither represent an agreement on the corresponding contractual quality of the substance/mixture nor a contractually designated use. It is the responsibility of the recipient of the product to ensure any proprietary rights and existing laws and legislation are observed.

Vertical lines in the left hand margin indicate an amendment from the previous version.