



ORGANIC GERANIUM BOURBON OIL

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878
Issue date: 9/29/2014 Revision date: 4/19/2022 Supersedes version of: 6/4/2021 Version: 2.0

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

1.1. Product identifier

Product form : Substance
Substance name : ORGANIC GERANIUM BOURBON OIL
EC-No. : 290-140-0
CAS-No. : 90082-51-2
Product code : BGERHE03
Synonyms : CAS USA No 8000-46-2
Product group : Organic 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]

Skin corrosion/irritation, Category 2 H315
Serious eye damage/eye irritation, Category 1 H318
Skin sensitisation, Category 1 H317
Hazardous to the aquatic environment — Chronic Hazard, Category 2 H411
Full text of H-statements: see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

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

Hazard pictograms (CLP) :



Signal word (CLP) : Danger

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Hazard statements (CLP)	: H315 - Causes skin irritation. H317 - May cause an allergic skin reaction. H318 - Causes serious eye damage. H411 - Toxic to aquatic life with long lasting effects.
Precautionary statements (CLP)	: P261 - Avoid breathing fume, gas, dust, vapours. P264 - Wash hands thoroughly after handling. P280 - Wear protective gloves, protective clothing, eye protection. P305+P351+P338+P310 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER, a doctor. P333+P313 - If skin irritation or rash occurs: Get medical advice/attention. P362+P364 - Take off contaminated clothing and wash it before reuse. P391 - Collect spillage.

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances

Name	: ORGANIC GERANIUM BOURBON OIL
CAS-No.	: 90082-51-2
EC-No.	: 290-140-0

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
CITRONELLOL	CAS-No.: 106-22-9 EC-No.: 203-375-0	18 – 26	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 Aquatic Chronic 2, H411
GERANIOL	CAS-No.: 106-24-1 EC-No.: 203-377-1	10 – 20	Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1, H317
LINALOOL	CAS-No.: 78-70-6 EC-No.: 201-134-4	4 – 11	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317
ISOMENTHONE	CAS-No.: 491-07-6 EC-No.: 207-727-4	5 – 10	Skin Irrit. 2, H315 Skin Sens. 1, H317
DL-MENTHONE	CAS-No.: 1074-95-9 EC-No.: 214-049-2	≤ 2	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 Aquatic Chronic 3, H412
ALPHA-TERPINEOL	CAS-No.: 98-55-5 EC-No.: 202-680-6	0.3 – 1.2	Skin Irrit. 2, H315 Eye Irrit. 2, H319
D-LIMONENE	CAS-No.: 5989-27-5 EC-No.: 227-813-5 EC Index-No.: 601-029-00-7	≤ 1	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Skin Sens. 1, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
CITRAL	CAS-No.: 5392-40-5 EC-No.: 226-394-6	≤ 0.5	Skin Irrit. 2, H315 Skin Sens. 1, H317

Full text of H-statements: see section 16

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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).
First-aid measures after inhalation	: Allow affected person to breathe fresh air. Allow the victim to rest.
First-aid measures after skin contact	: Wash with plenty of water/... Wash contaminated clothing before reuse. If skin irritation occurs: Rinse skin with water/shower. Get medical advice/attention. Specific treatment (see Refer to instruction manual/booklet on this label). If skin irritation or rash occurs: Rinse skin with water/shower.
First-aid measures after eye contact	: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.
First-aid measures after ingestion	: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER/doctor. Obtain emergency medical attention.

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

Symptoms/effects after inhalation	: May cause an allergic skin reaction.
Symptoms/effects after skin contact	: Causes skin irritation.
Symptoms/effects after eye contact	: Causes serious eye damage.
Symptoms/effects after ingestion	: May be fatal if swallowed and enters airways.

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

No additional information available

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

No additional information available

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.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures	: Evacuate unnecessary personnel.
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6.1.2. For emergency responders

Protective equipment	: Equip cleanup crew with proper 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.

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6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : 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. Avoid breathing smokes, vapours.

Hygiene measures : Wash hands thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse.

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.

Incompatible products : Strong bases. Strong acids.

Incompatible materials : Sources of ignition. Direct sunlight.

Maximum storage period : 3 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 : ~ 18 (5 – 25) °C

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1. National occupational exposure and biological limit values

No additional information available

8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

No additional information available

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

No additional information available

8.2.2. Personal protection equipment

Personal protective equipment:

Avoid all unnecessary exposure.

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8.2.2.1. Eye and face protection

Eye protection:

Chemical goggles or safety glasses

8.2.2.2. Skin protection

Skin and body protection:

Wear suitable protective clothing

Hand protection:

Wear protective gloves.

8.2.2.3. Respiratory protection

Respiratory protection:

[In case of inadequate ventilation] wear respiratory protection. Wear appropriate mask

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

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
Colour	: light yellow. Green. light brown.
Appearance	: Liquid mobile. Clear.
Odour	: characteristic.
Odour threshold	: Not available
Melting point	: Not available
Freezing point	: Not available
Boiling point	: Not available
Flammability	: Non flammable.
Explosive limits	: Not available
Lower explosive limit (LEL)	: Not available
Upper explosive limit (UEL)	: Not available
Flash point	: 83 °C
Auto-ignition temperature	: Not available
Decomposition temperature	: Not available
pH	: Not available
Viscosity, kinematic	: Not available
Solubility	: Poorly soluble in water.
Partition coefficient n-octanol/water (Log Kow)	: Not available
Vapour pressure	: Not available
Vapour pressure at 50 °C	: Not available
Density	: Not available
Relative density	: 0.88 – 0.905
Relative vapour density at 20 °C	: Not available
Particle size	: Not applicable
Particle size distribution	: Not applicable
Particle shape	: Not applicable
Particle aspect ratio	: Not applicable
Particle aggregation state	: Not applicable
Particle agglomeration state	: Not applicable
Particle specific surface area	: Not applicable
Particle dustiness	: Not applicable

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9.2. Other information

9.2.1. Information with regard to physical hazard classes

No additional information available

9.2.2. Other safety characteristics

VOC content : ~ 1 %
Refractive index : 1.46 – 1.477

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

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 hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity (oral) : Not classified
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified

ORGANIC GERANIUM BOURBON OIL (90082-51-2)	
LD50 oral rat	> 5000 mg/kg
LD50 dermal rabbit	2500 mg/kg
CITRAL (5392-40-5)	
LD50 oral rat	4960 mg/kg
LD50 oral	6000 mg/kg LD50 oral mouse
LD50 dermal rabbit	2550 mg/kg
CITRONELLOL (106-22-9)	
LD50 oral rat	3450 mg/kg
LD50 dermal rabbit	2650 mg/kg
GERANIOL (106-24-1)	
LD50 oral rat	3600 mg/kg
LD50 dermal rabbit	> 5000 mg/kg

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D-LIMONENE (5989-27-5)	
LD50 oral rat	4400 mg/kg
LD50 dermal rabbit	> 5000 mg/kg
LINALOOL (78-70-6)	
LD50 oral rat	2790 mg/kg
LD50 oral	3120 mg/kg LD50 oral mouse
LD50 dermal rabbit	5610 mg/kg
DL-MENTHONE (1074-95-9)	
LD50 oral rat	2500 mg/kg
ISOMENTHONE (491-07-6)	
LD50 oral rat	2500 mg/kg
Skin corrosion/irritation	: Causes skin irritation.
Serious eye damage/irritation	: Causes serious eye damage.
Respiratory or skin sensitisation	: May cause an allergic skin reaction.
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
D-LIMONENE (5989-27-5)	
IARC group	3 - Not classifiable
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
11.2. Information on other hazards	
11.2.1. Endocrine disrupting properties	
11.2.2. Other information	
Potential adverse human health effects and symptoms	: Based on available data, the classification criteria are not met
SECTION 12: Ecological information	
12.1. Toxicity	
Ecology - water	: Toxic 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)	: Toxic to aquatic life with long lasting effects.
CITRONELLOL (106-22-9)	
LC50 - Fish [1]	10 – 22 mg/l <i>Leuciscus idus</i> (Ide; golden orfe) - 96h
EC50 - Crustacea [1]	17 mg/l daphnia - 48h
EC50 - Other aquatic organisms [1]	2.4 mg/l algae - 72h

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GERANIOL (106-24-1)	
LC50 - Fish [1]	env. 22 mg/l Brachydanio rerio (zebra-fish) - 96h
EC50 - Crustacea [1]	10.8 mg/l EC50 48h - Daphnia magna [mg/l]
EC50 - Other aquatic organisms [1]	13.1 mg/l Desmodesmus subspicatus (green algae) -72h
D-LIMONENE (5989-27-5)	
LC50 - Fish [1]	0.702 mg/l Pimephales promela (fathead minnow) -96h
EC50 - Crustacea [1]	69.6 daphnia - 48h
LINALOOL (78-70-6)	
LC50 - Fish [1]	27.8 mg/l EC 50 (fish : rainbow trout) : - 96h
LC50 - Other aquatic organisms [1]	88.3 mg/l Desmodesmus subspicatus (green algae) - 96h
EC50 - Crustacea [1]	59 mg/l EC50 48h - Daphnia magna [mg/l]
NOEC chronic fish	3.5 mg/l Oncorhynchus mykiss (Rainbow trout)- 96h
NOEC chronic crustacea	25 mg/l daphnia - 48h
12.2. Persistence and degradability	
ORGANIC GERANIUM BOURBON OIL (90082-51-2)	
Persistence and degradability	May cause long-term adverse effects in the environment.
ALPHA-TERPINEOL (98-55-5)	
Persistence and degradability	Not established.
CITRAL (5392-40-5)	
Persistence and degradability	Not established.
CITRONELLOL (106-22-9)	
Persistence and degradability	Readily biodegradable. May cause long-term adverse effects in the environment.
Chemical oxygen demand (COD)	2.05 g O ₂ /g substance
GERANIOL (106-24-1)	
Persistence and degradability	Readily biodegradable. Not established.
Biodegradation	80 – 100 % aérobic, Exposure duration 3 days
D-LIMONENE (5989-27-5)	
Persistence and degradability	May cause long-term adverse effects in the environment.
LINALOOL (78-70-6)	
Persistence and degradability	Readily biodegradable. Not established.
Biodegradation	100 % 13 DAYS- ZAHN-WELLENS TEST OECD N° 302 B
DL-MENTHONE (1074-95-9)	
Persistence and degradability	May cause long-term adverse effects in the environment.
ISOMENTHONE (491-07-6)	
Persistence and degradability	Not established.

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12.3. Bioaccumulative potential

ORGANIC GERANIUM BOURBON OIL (90082-51-2)

Bioaccumulative potential	Not established.
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ALPHA-TERPINEOL (98-55-5)

Bioaccumulative potential	Not established.
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CITRAL (5392-40-5)

Bioaccumulative potential	Not established.
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CITRONELLOL (106-22-9)

Partition coefficient n-octanol/water (Log Pow)	3.41
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Bioaccumulative potential	Not established.
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GERANIOL (106-24-1)

Partition coefficient n-octanol/water (Log Pow)	2.5 at 25 °C
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Bioaccumulative potential	Not established.
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D-LIMONENE (5989-27-5)

Bioaccumulative potential	Not established.
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LINALOOL (78-70-6)

Partition coefficient n-octanol/water (Log Pow)	2.97
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Bioaccumulative potential	Not established.
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DL-MENTHONE (1074-95-9)

Partition coefficient n-octanol/water (Log Pow)	3.05
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Bioaccumulative potential	Not established.
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ISOMENTHONE (491-07-6)

Bioaccumulative potential	Not established.
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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. Endocrine disrupting properties

No additional information available

12.7. Other adverse effects

Additional information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

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. Hazardous waste due to toxicity.

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SECTION 14: Transport information

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

14.1. UN number or ID number

UN-No. (ADR) : Not applicable
UN-No. (IMDG) : Not applicable
UN-No. (IATA) : Not applicable
UN-No. (ADN) : Not applicable
UN-No. (RID) : Not applicable

14.2. UN proper shipping name

Proper Shipping Name (ADR) : Not applicable
Proper Shipping Name (IMDG) : Not applicable
Proper Shipping Name (IATA) : Not applicable
Proper Shipping Name (ADN) : Not applicable
Proper Shipping Name (RID) : Not applicable

14.3. Transport hazard class(es)

ADR

Transport hazard class(es) (ADR) : Not applicable
:



IMDG

Transport hazard class(es) (IMDG) : Not applicable
:



IATA

Transport hazard class(es) (IATA) : Not applicable
:



ADN

Transport hazard class(es) (ADN) : Not applicable
:



RID

Transport hazard class(es) (RID) : Not applicable
:



14.4. Packing group

Packing group (ADR) : Not applicable

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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	: Yes
Marine pollutant	: Yes
Other information	: No supplementary information available

14.6. Special precautions for user

Overland transport

No data available

Transport by sea

No data available

Air transport

No data available

Inland waterway transport

No data available

Rail transport

No data available

14.7. Maritime transport in bulk according to IMO instruments

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

No REACH Annex XVII restrictions

ORGANIC GERANIUM BOURBON OIL is not on the REACH Candidate List

ORGANIC GERANIUM BOURBON OIL is not on the REACH Annex XIV List

ORGANIC GERANIUM BOURBON OIL 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.

ORGANIC GERANIUM BOURBON OIL 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

VOC content : ~ 1 %

15.1.2. National regulations

Germany

Water hazard class (WGK) : WGK 2, Significantly hazardous to water (Classification according to AwSV; ID No. 3815)

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

SECTION 16: Other information

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.

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Full text of H- and EUH-statements	
Aquatic Acute 1	Hazardous to the aquatic environment — Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment — Chronic Hazard, Category 1
Aquatic Chronic 2	Hazardous to the aquatic environment — Chronic Hazard, Category 2
Aquatic Chronic 3	Hazardous to the aquatic environment — Chronic Hazard, Category 3
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Flam. Liq. 3	Flammable liquids, Category 3
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Skin sensitisation, Category 1
H226	Flammable liquid and vapour.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

Safety Data Sheet (SDS), EU

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.