

SAFETY DATA SHEET

(REACH regulation (EC) n° 1907/2006 - n° 2020/878)

SECTION 1 : IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

CAS: 106-24-1 EC: 203-377-1

REACH: 01-2119552430-49

Product name: GERANIOL 980 Product code: H07112.

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

Use of the substance/mixture: Raw material used in perfumery preparations.

|> 1.3. Details of the supplier of the safety data sheet

 $Registered\ company\ name: IFF\ CHEMICAL\ HOLDINGS,\ INC..$

Address: 2051 NORTH LANE AVENUE.2051.JACKSONVILLE.USA.

Telephone: +19047832180. Fax: +19046954616.

sds@iff.com

Distributor: BLH s.a.s.

Address: ZAC du Pilon - 06460 SAINT VALLIER DE THIEY

Tèl: 04 92 60 35 60 - Fax: 04 92 60 35 69

Website: www.blhsas.com

|> 1.4. Emergency telephone number : +33 (0)1 45 42 59 59.

Association/Organisation: INRS / ORFILA http://www.centres-antipoison.net.

>SECTION 2 : HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

In compliance with EC regulation No. 1272/2008 and its amendments.

Skin irritation, Category 2 (Skin Irrit. 2, H315).

Serious eye damage, Category 1 (Eye Dam. 1, H318).

Skin sensitisation, Category 1 (Skin Sens. 1, H317).

This substance does not present a physical hazard. Refer to the recommendations regarding the other products present on the site.

This substance does not present an environmental hazard. No known or foreseeable environmental damage under standard conditions of use.

2.2. Label elements

|> In compliance with EC regulation No. 1272/2008 and its amendments.

Hazard pictograms :





GHS05

GHS07

Signal Word:

DANGER

Product identifiers:

EC 203-377-1 GERANIOL EC 203-378-7 NEROL

EC 203-375-0 6-OCTEN-1-OL, 3,7-DIMETHYL-

Hazard statements:

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.

Precautionary statements - Prevention:

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

Precautionary statements - Response:

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and

easy to do. Continue rinsing.

P310 Immediately call a POISON CENTER or doctor/physician.
P333 + P313 If skin irritation or rash 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

The substance does not fulfil the PBT or vPvP criteria in accordance with annexe XIII of the REACH regulations EC 1907/2006.

>SECTION 3 : COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances

|> Composition:

Identification	Classification (EC) 1272/2008	Note	%
CAS: 106-24-1	GHS07, GHS05		90-100
EC: 203-377-1	Dgr		
REACH: 01-2119552430-49	Skin Irrit. 2, H315		
	Skin Sens. 1, H317		
GERANIOL	Eye Dam. 1, H318		
CAS: 106-25-2	GHS07		1-10
EC: 203-378-7	Wng		
	Skin Irrit. 2, H315		
NEROL	Skin Sens. 1B, H317		
	Eye Irrit. 2, H319		
CAS: 106-22-9	GHS07		0.1-1
EC: 203-375-0	Wng		
REACH: 01-2119453995-23	Skin Irrit. 2, H315		
	Skin Sens. 1, H317		
6-OCTEN-1-OL, 3,7-DIMETHYL-	Eye Irrit. 2, H319		

|> Specific concentration limits:

Identification	Specific concentration limits	ATE
CAS: 106-24-1		oral: ATE = 3600 mg/kg BW
EC: 203-377-1		
REACH: 01-2119552430-49		
GERANIOL		

SECTION 4 : FIRST AID MEASURES

As a general rule, in case of doubt or if symptoms persist, always call a doctor.

NEVER induce swallowing by an unconscious person.

4.1. description of first aid measures

In the event of splashes or contact with eyes:

Wash thoroughly with fresh, clean water for 15 minutes holding the eyelids open.

Regardless of the initial state, refer the patient to an ophthalmologist and show him the label.

In the event of splashes or contact with skin:

Remove contaminated clothing and wash the skin thoroughly with soap and water or a recognised cleaner.

Watch out for any remaining product between skin and clothing, watches, shoes, etc.

In the event of an allergic reaction, seek medical attention.

If the contaminated aera is widespread and/or there is damage to the skin, a doctor must be consulted or the patient transferred to hospital.

In the event of swallowing:

Do not give the patient anything orally.

In the event of swallowing, if the quantity is small (no more than one mouthful), rinse the mouth with water and consult a doctor.

Seek medical attention immediately, showing the label.

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

No data available.

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

No data available.

SECTION 5: FIREFIGHTING MEASURES

Non-flammable.

5.1. Extinguishing media

Suitable methods of extinction

In the event of a fire, use:

- powder
- foam
- carbon dioxide (CO2)

Unsuitable methods of extinction

In the event of a fire, do not use:

- water jet

5.2. Special hazards arising from the substance or mixture

A fire will often produce a thick black smoke. Exposure to decomposition products may be hazardous to health.

Do not breathe in smoke.

In the event of a fire, the following may be formed:

- carbon monoxide (CO)
- carbon dioxide (CO2)

5.3. Advice for firefighters

No data available.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Consult the safety measures listed under headings 7 and 8.

For non first aid worker

Avoid any contact with the skin and eyes.

For first aid worker

First aid workers will be equipped with suitable personal protective equipment (See section 8).

6.2. Environmental precautions

Contain and control the leaks or spills with non-combustible absorbent materials such as sand, earth, vermiculite, diatomaceous earth in drums for waste disposal.

Prevent any material from entering drains or waterways.

6.3. Methods and material for containment and cleaning up

Clean preferably with a detergent, do not use solvents.

6.4. Reference to other sections

No data available.

SECTION 7: HANDLING AND STORAGE

Requirements relating to storage premises apply to all facilities where the substance is handled.

Individuals with a history of skin sensitisation should not, under any circumstance, handle this substance.

7.1. Precautions for safe handling

Always wash hands after handling.

Remove and wash contaminated clothing before re-using.

Provide emergency showers and eye wash stations will be required in facilities where the substance is handled constantly.

Fire prevention:

Prevent access by unauthorised personnel.

Recommended equipment and procedures:

For personal protection, see section 8.

Observe precautions stated on label and also industrial safety regulations.

Avoid eye contact with this substance at all times.

Prohibited equipment and procedures:

No smoking, eating or drinking in areas where the substance is used.

7.2. Conditions for safe storage, including any incompatibilities

No data available.

Packaging

Always keep in packaging made of an identical material to the original.

7.3. Specific end use(s)

No data available.

SECTION 8 : EXPOSURE CONTROLS/PERSONAL PROTECTION

|> 8.1. Control parameters

No data available.

Derived no effect level (DNEL) or derived minimum effect level (DMEL):

GERANIOL (CAS: 106-24-1)

Final use: Workers.
Exposure method: Dermal contact.

Potential health effects: Long term systemic effects.

DNEL: 12.5 mg/kg body weight/day

Exposure method: Dermal contact.

Potential health effects: Long term local effects.

DNEL: 11800 µg of substance/cm2

Exposure method: Inhalation.

Potential health effects: Long term systemic effects.
DNEL: 161.6 mg of substance/m3

Final use: Consumers.

Exposure method: Ingestion.

Potential health effects: Long term systemic effects.

DNEL: 13.75 mg/kg body weight/day

Exposure method: Dermal contact.

Potential health effects: Long term systemic effects.

DNEL: 7.5 mg/kg body weight/day

Exposure method:

Potential health effects:

DNEL:

Dermal contact.

Long term local effects.

11800 µg of substance/cm2

Exposure method: Inhalation.

Potential health effects: Long term systemic effects. DNEL: 47.8 mg of substance/m3

Predicted no effect concentration (PNEC):

GERANIOL (CAS: 106-24-1)

Environmental compartment: Soil. PNEC: 0.017 mg/kg

 $\begin{array}{ll} Environmental \ compartment: & Fresh \ water. \\ PNEC: & 0.011 \ mg/l \end{array}$

Environmental compartment: Sea water. PNEC: 0.001 mg/l

Environmental compartment: Fresh water sediment.

PNEC: 0.115 mg/kg

Environmental compartment: Marine sediment. PNEC: 0.011 mg/kg

Environmental compartment: Waste water treatment plant.

PNEC: 0.7 mg/l

8.2. Exposure controls

Personal protection measures, such as personal protective equipment

Pictogram(s) indicating the obligation of wearing personal protective equipment (PPE):





Use personal protective equipment that is clean and has been properly maintained.

Store personal protective equipment in a clean place, away from the work area.

Never eat, drink or smoke during use. Remove and wash contaminated clothing before re-using. Ensure that there is adequate ventilation, especially in confined areas.

- Eye / face protection

Avoid contact with eyes.

Use eye protectors designed to protect against liquid splashes

Before handling, wear safety goggles with protective sides accordance with standard EN166.

In the event of high danger, protect the face with a face shield.

Prescription glasses are not considered as protection.

Individuals wearing contact lenses should wear prescription glasses during work where they may be exposed to irritant vapours.

Provide eyewash stations in facilities where the product is handled constantly.

> - Hand protection

Wear suitable protective gloves in the event of prolonged or repeated skin contact.

Use suitable protective gloves that are resistant to chemical agents in accordance with standard EN ISO 374-1.

Gloves must be selected according to the application and duration of use at the workstation.

Protective gloves need to be selected according to their suitability for the workstation in question: other chemical products that may be handled, necessary physical protections (cutting, pricking, heat protection), level of dexterity required.

> - Body protection

Avoid skin contact.

Wear suitable protective clothing.

Suitable type of protective clothing:

In the event of substantial spatter, wear liquid-tight protective clothing against chemical risks (type 3) in accordance with EN14605/A1 to prevent skin contact.

In the event of a risk of splashing, wear protective clothing against chemical risks (type 6) in accordance with EN13034/A1 to prevent skin contact.

Work clothing worn by personnel shall be laundered regularly.

After contact with the product, all parts of the body that have been soiled must be washed.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical state

Physical state: Fluid liquid.

|> Colour

Unspecified

|> Odour

Odour threshold: Not stated.

|> Melting point

Melting point/melting range: Not specified.

|> Freezing point

Freezing point / Freezing range: Not stated.

|> Boiling point or initial boiling point and boiling range

Boiling point/boiling range: Not specified.

> Flammability

Flammability (solid, gas): Not stated.

|> Lower and upper explosion limit

Explosive properties, lower explosivity limit (%) Not stated.

: Explosive properties, upper explosivity limit (%) Not stated.

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Flash point

Flash Point: 103.00 °C.

Auto-ignition temperature

Self-ignition temperature: Not specified.

Decomposition temperature

Decomposition point/decomposition range: Not specified.

|> nH

pH: Not relevant. pH (aqueous solution): Not stated.

|> Kinematic viscosity

Viscosity: Not stated.

|> Solubility

Water solubility: Insoluble. Fat solubility: Not stated.

Partition coefficient n-octanol/water (log value)

Partition coefficient: n-octanol/water: log Pow: 2,600

Vapour pressure

Vapour pressure (50°C): Not relevant.

Density and/or relative density

Density: CoA

|> Relative vapour density

Vapour density: Not stated.

|> Particle characteristics

The substance does not contain nanoforms.

9.2. Other information

No data available.

9.2.1. Information with regard to physical hazard classes

No data available.

9.2.2. Other safety characteristics

No data available.

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

No data available.

10.2. Chemical stability

This substance is stable under the recommended handling and storage conditions in section 7.

10.3. Possibility of hazardous reactions

No data available.

10.4. Conditions to avoid

Avoid:

- heat

10.5. Incompatible materials

Keep away from:

- oxidising agents
- strong acids
- alkalis

10.6. Hazardous decomposition products

The thermal decomposition may release/form:

- carbon monoxide (CO)
- carbon dioxide (CO2)

SECTION 11: TOXICOLOGICAL INFORMATION

|> 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

May cause irreversible damage to the skin; namely inflammation of the skin or the formation of erythema and eschar or oedema following exposure up to four hours.

May have irreversible effects on the eyes, such as tissue damage in the eye, or serious physical decay of sight, which is not fully reversible by the end of observation at 21 days.

Serious eye damage is typified by the destruction of cornea, persistent corneal opacity and iritis.

May cause an allergic reaction by skin contact.

11.1.1. Substances

Acute toxicity:

GERANIOL (CAS: 106-24-1)

Oral route: LD50 = 3600 mg/kg bodyweight/day

Species: Rat

Dermal route: LD50 > 5000 mg/kg bodyweight/day

Species: Rabbit

11.2. Information on other hazards

SECTION 12 : ECOLOGICAL INFORMATION

12.1. Toxicity

12.1.1. Substances

GERANIOL (CAS: 106-24-1)

Fish toxicity: LC50 = 22 mg/l

Species : Danio rerio Duration of exposure : 96 h

OECD Guideline 203 (Fish, Acute Toxicity Test)

NOEC = 10 mg/l Species : Danio rerio

OECD Guideline 203 (Fish, Acute Toxicity Test)

Crustacean toxicity: EC50 = 10.8 mg/l

Species : Daphnia magna Duration of exposure : 48 h

OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)

Algae toxicity: ECr50 = 13.10 mg/l

Species: Scenedesmus capricornutum

Duration of exposure: 72 h

OECD Guideline 201 (Alga, Growth Inhibition Test)

NOEC = 1 mg/l

Species: Scenedesmus capricornutum

Duration of exposure: 72 h

OECD Guideline 201 (Alga, Growth Inhibition Test)

12.2. Persistence and degradability

|> 12.2.1. Substances

6-OCTEN-1-OL, 3,7-DIMETHYL- (CAS: 106-22-9)

Biodegradability: no degradability data is available, the substance is considered as not degrading

quickly.

NEROL (CAS: 106-25-2)

Biodegradability: no degradability data is available, the substance is considered as not degrading

quickly.

GERANIOL (CAS: 106-24-1) Biodegradability:

no degradability data is available, the substance is considered as not degrading quickly.

12.3. Bioaccumulative potential

No data available.

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

No data available.

12.6. Endocrine disrupting properties

No data available.

12.7. Other adverse effects

No data available.

SECTION 13: DISPOSAL CONSIDERATIONS

Proper waste management of the substance and/or its container must be determined in accordance with Directive 2008/98/EC.

13.1. Waste treatment methods

Do not pour into drains or waterways.

Waste:

Waste management is carried out without endangering human health, without harming the environment and, in particular without risk to water, air, soil, plants or animals.

Recycle or dispose of waste in compliance with current legislation, via a certified collector or company.

Do not contaminate the ground or water with waste, do not dispose of waste into the environment.

Soiled packaging:

Empty container completely. Keep label(s) on container.

Give to a certified disposal contractor.

SECTION 14: TRANSPORT INFORMATION

Exempt from transport classification and labelling.

14.1. UN number or ID number

14.2. UN proper shipping name

14.3. Transport hazard class(es)

14.4. Packing group

14.5. Environmental hazards

14.6. Special precautions for user

14.7. Maritime transport in bulk according to IMO instruments

>SECTION 15: Regulatory information

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

> Classification and labelling information included in section 2:

The following regulations have been used:

- EU Regulation No. 1272/2008 amended by EU Regulation No. 2020/1182 (ATP 15)

Container information:

No data available.

> Restrictions applied under Title VIII of Regulation (EC) No. 1907/2006 (REACH):

not restricted under Annex XVII Regulation (EC) 1907/2006 (REACH): no. https://echa.europa.eu/substances-restricted-under-reach.

|> Explosives precursors :

The substance is not subject to Regulation (EU) 2019/1148 on the marketing and use of explosives precursors.

Particular provisions:

No data available.

15.2. Chemical safety assessment

No data available.

>SECTION 16: OTHER INFORMATION

Since the user's working conditions are not known by us, the information supplied on this safety data sheet is based on our current level of knowledge and on national and community regulations.

It is at all times the responsibility of the user to take all necessary measures to comply with legal requirements and local regulations.

The information in this safety data sheet must be regarded as a description of the safety requirements relating to the substance and not as a guarantee of the properties thereof.

Wording of the phrases mentioned in section 3:

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H318 Causes serious eye damage.
H319 Causes serious eye irritation.

|> Abbreviations and acronyms :

LD50: The dose of a test substance resulting in 50% lethality in a given time period.

LC50: The concentration of a test substance resulting in 50% lethality in a given period.

EC50: The effective concentration of substance that causes 50% of the maximum response.

ECr50: The effective concentration of substance that causes 50% reduction in growth rate.

NOEC: The concentration with no observed effect.

REACH: Registration, Evaluation, Authorization and Restriction of Chemical Substances.

ATE: Acute Toxicity Estimate

BW: Body Weight

DNEL: Derived No-Effect Level

PNEC: Predicted No-Effect Concentration

ADR: European agreement concerning the international carriage of dangerous goods by Road.

IMDG: International Maritime Dangerous Goods.

IATA: International Air Transport Association.

ICAO : International Civil Aviation Organisation

RID: Regulations concerning the International carriage of Dangerous goods by rail.

WGK: Wassergefahrdungsklasse (Water Hazard Class).

GHS05: Corrosion

GHS07: Exclamation mark

PBT: Persistent, bioaccumulable and toxic. vPvB: Very persistent, very bioaccumulable.

SVHC: Substances of very high concern.

> Modification compared to the previous version