# COTTON SEED OIL Material Safety Data Sheet (MSDS)

Updated: 15/04/2021

# 1. Identification of the substance and of the company

Product name	Cottonseed oil cold pressed
French product name	Huile de cotton
INCI Name	Gossypium herbaceum seed oil
Extraction method	Cold pressed and decanted
Quality	100% pure and natural
Application	Cosmetics, skin care
Supplier	SOPREEF
Address	BP 53, Sokone, Sénégal
	sopreef@vivredurable.net
Enterprise registration	SN FTK 2008 B 2008

#### 2. Hazard Identification

Not hazardous according to EU-regulation

Eye contact	No known hazard
Skin contact	Should not be used by people with sensitive skin
Ingestion	Non-edible oil. May cause diarrhea. See toxicological informations below
Inhalation	No known hazard

# 3. Composition/Information on ingredients

INCI	Gossypium herbaceum seed oil
CAS	8001-29-4
EINECS	232-280-7
Restrictions	N/A
Status	Fixed oil
Origin	Senegal
Functions	Emolient, Solvent
Uses	Skin care, Soap making

#### 4. First aid measures

Eye contact	Wash thoroughly with copious amount of water for at least 15 minutes. Seek medical advice if symptom persists.
Skin contact	Not known as dangerous  Eventually wash with soap and water- get medical attention if any irritation
Ingestion	If ingested in large quantities, seek medical attention if discomfort is encountered.
Inhalation	Remove victim to fresh air

In case of doubt or if irritation and symptoms persist, seek medical advice.



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# 5. Fire Fighting Measures

Extinguishing media recommanded:

Suitable	Carbon dioxide dry powder or foam, sand.
Unsuitable	Water (can help spread the flame).
Fire protection	Keep away from, and avoid contact with, flames and sparks.  Do not smoke
Extinguishing procedures	Closed containers may build up pressure when exposed to heat and should be cooled with water spray.

#### 6. Accidental Release Measures

Personal precautions	Be careful of slipping after spill or leak.
Prevention	Contain and absorb leaks with non-combustible absorbent materials, such as sand, soil, vermiculite and diatomaceous earth in the barrels for waste disposal. Contain spillage with sawdust.
	Use individual protective equipment (safety glasses, waterproofboots, suitable protective clothing) in case of major spillages.
Environment protection	Do not allow to enter drains of water sources.
Cleaning up methods for spillages	Remove all potential ignition sources.  Contain spilled material.
	Cover with an inert or non-combustible inorganic absorbent material, sweep up and remove to an approved disposal container.
	Clean with hot water and detergents. Do not use solvents.
	Observe state, federal and local disposal regulations.

# 7. Handling and storage

Handling	Use only equipment resistant to vegetable oils, avoid leaks and ensure it does not soak into the floor
	Apply good manufacturing practice & industrial hygiene practices.
	Observe good personal hygiene, and do not eat, drink or smoke whilst handling.
	Avoid static discharges.
Storage	Keep in tightly sealed containers, in an inert atmosphere and away from light, heat and moisture.
	Keep air contact to a minimum
	Keep away from and avoid contact with flames, sparks or strong oxidizing agents

# 8. Exposure Control/Personal protection

Respiratory protection	No special measures under normal use
Hand protection	No special measures under normal conditions.
Eye protection	Safety glasses if there is a risk of splashing
Other protective equipment	Work clothing, mask and safety shoes
Work/hygiene practices	Wash hands with soap & water after handling.

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# 9. Physical and chemical properties

Appearance	Oil
Aroma	
Colour	Red brown, Dark brown
Specific gravity	0.91-0.93 g/mL at 20 °C
Water solubility	Insoluble
Acid value	<1.2 mg KOH/g oil
Peroxide value	<1.0 meq peroxides O2/kg oil
lodine value	101-116 g l <sub>2</sub> /100g
Saponification value	191-199 mg KOH/g oil
Melting point/Freezing point	4-6 °C
Smoke point	216 °C
Flash point	N/A
Components	Linoleic acid (omega 6): 40-50% of fatty acids Sterols (campesterol, beta-sistosterol): powervul antioxidants Gossypol: 0.65 - 2.4% of kernel weight

# 10. Stability and reactivity

Reactivity	No significant reactivity hazard
Chemical stability	Sensible to oxidation, can go rancid on exposure to excessive air and heat. Store in a fresh place.
Shelf life	> 12 months
Possibility hazardous reactions	Hazardous polymerization will not occur
Conditions to avoid	Avoid strong acids, alkali, oxidizing agents or heat.
Decomposition products	

# 11. Toxicological Information

Contains no substances classified as dangerous according to Directive 1272/2008

Acute oral toxicity	no data available
Dermal and eye irritation	no data available
Carcinogenicity, Mutagenicity	not identified as a carcinogen by the International Agency for Research on Cancer (WHO 2014); is not on the California Proposition 65 list of known carcinogens (Cal-EPA 1997); and does not appear on the Toxics Release Inventory (TRI) Basis of OSHA Carcinogens (US EPA 2015)

# 12. Ecological information

No ecotoxicological testing known. Water insoluble.

Toxicity	Not toxic to insects and mites
Biodegradibility	Biodegradable and unlikely to accumulate in aquatic environment.
	Discharge of large quantities into aquatic environment may kill fish and other organisms by oxygen depletion
Precautions	Prevent surface contamination of soil, ground & surface water



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## 13. Disposal Consideration

Do not pour into drains or into water sources.

Incineration	Incinerate in accordance with local regulations.
Disposing of used containers	Observe the local regulations

### 14. Transport Information

Not classified as hazardous for transport

ADR/US DOT Shipping description (Land): Not regulated

IMO-IMDG Shipping description (Sea): Not regulated

ICAO/IATA Shipping description (Air): Not Regulated

RID Shipping description (Rail): Not regulated

# 15. Regulatory Information

This product does not meet the definition of a hazardous substance or preparation as defined by the European Union Council Directives 67/548/EEC, 1999/45/EC, 1272/2008/EC and subsequent Directives

According to Directive 88/379/EEC:

Hazards	N/A
Symbols	N/A
Risk phrases	N/A
Safety phrases	N/A

#### 16. Other information

#### Toxicology:

Gossypol is a poisonous pigment characteristic of non hybrid cotton seed. It is considered as a male antifertility agent. It reacts with proteins to reduce de nutritive value of cottonseed products.

It is toxic to non ruminant. Consuming high concentration of gossypol may include respiratory distress, weakness, and apathy. General recommendation for gossypol by EU legislation on gossypol containing plant materials used as feed is maximum content of cotton seed meal in mg/kg relative to feeding stuff with moisture content of 12% as 1200 (mg/kg).

The use of glandless cotton could produce Gossypol free cottonseed, but then insect predation would be a big menace (gossypol is part of the defence mechanism of the plant).

Gossypol is water insoluble and resistant to sulfuric acid treatment, but readily dissolves in aqueous NaOH with salt formation (thus is **eliminated by saponification**). These salts are insoluble in oil but soluble in water and alcohol.

#### Medicinal:

Linoleic acid is an essential fatty acid, not synthetized by the organism. Carence in linoleic acid might induce severe skin dryness and allergies.

Although gossypol shows toxicity effects, recent research showed that this component has bioactive properties such as antimicrobial, antioxidant, and anticancer activities. Gossypol has been reported to exhibit a variety of other biological activities, including anti-tumor (it could boost the effectiveness of treatment for prostate tumours and possibly other common cancers as well), anti-bacterial, anti-oxidant, and anti-inflammatory activities, as well as antiviral activity against a number of enveloped viruses such as the human immunodeficiency virus (HIV).

Considering anti-inflammatory activity of gossypol, it has been suggested to be a potential drug for the treatment of psoriasis.

# SPREEF

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#### Disclaimer:

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#### Sources

European Commission database for information on cosmetic substances and ingredients https://ec.europa.eu/growth/tools-databases/cosing/

Cosmetics Ingredients Selector https://cosmetics.specialchem.com/inci-names

INCI Beauty https://incibeauty.com/

European chemical agency <a href="https://echa.europa.eu/home">https://echa.europa.eu/home</a>

Commission des normes, de l'équité,de la santé et de la sécurité du travail du Canada https://reptox.cnesst.gouv.qc.ca/

Xu, Wb., Xu, Lh., Lu, Hs. et al. The immunosuppressive effect of gossypol in mice is mediated by inhibition of lymphocyte proliferation and by induction of cell apoptosis. Acta Pharmacol Sin 30, 597–604 (2009). https://www.nature.com/articles/aps200935

Environmental Working Group (EWG) website <a href="https://www.ewg.org/skindeep/ingredients/">https://www.ewg.org/skindeep/ingredients/</a>

U.S. Researchers Show Cottonseed Drug Is Cancer Treatment Booster <a href="https://www.sciencedaily.com/releases/2004/10/041001091115.htm">https://www.sciencedaily.com/releases/2004/10/041001091115.htm</a>

Brian P. Baker and Jennifer A. Grant. Cottonseed Oil Profile-Active Ingredient Eligible for Minimum Risk Pesticide Use - New York State Integrated Pest Management, Cornell University, Geneva NY <a href="https://ecommons.cornell.edu/handle/1813/56123">https://ecommons.cornell.edu/handle/1813/56123</a>