

HYDROGENATED CASTOR OIL FLAKES

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SECTION 1: IDENTIFICATION

1.1 GHS Product identifier:

HYDROGENATED CASTOR OIL FLAKES
Opal wax; HCO; Castor wax
CAS: 8001-78-3

Other means of identification:

Not relevant

1.2 Recommended use of the chemical and restrictions on use:

Relevant uses: Raw material for cosmetics, candles, lubricating greases, printing inks, PVC stabilisers, coatings and polishes. For industrial user only.
Uses advised against: All uses not specified in this section or in section 7.3.

1.3 Supplier's details:

SURAJ CHEMICALS
No 92, Govindappa Naicken Street, Shiva Complex, Chennai – 600001, Tamil Nadu, India
Tel: +91 - 7092722822, +91 - 9840284032 / +91 - 44 - 25393652, 42130281
Email: sales@surajchemicals.com | Website: www.surajchemicals.com
GST No: 33ACEPV8190L1ZZ

1.4 Emergency phone number:

Emergency Contact No: +91 - 7092722822, +91 - 9840284032

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture:

GHS:
Classification of this product has been carried out in accordance with the Globally Harmonized System of Classification and Labelling of Chemicals (GHS). Based on available data, Hydrogenated Castor Oil is **not classified** as hazardous under GHS criteria.

Not Classified	No hazard class meets GHS classification criteria based on available data
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2.2 GHS label elements, including precautionary statements:

GHS: No signal word required

Hazard statements:

None required under GHS.

Precautionary statements:

P264: Wash hands thoroughly after handling.
P280: Wear protective gloves where handling molten/heated material.
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P501: Dispose of contents/container in accordance with local regulations.

2.3 Other hazards which do not result in classification:

Molten material presents a thermal burn hazard. Fine flake/powder dust may present a nuisance-dust and slip/combustible-dust handling hazard in bulk.

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

3.1 Substances:

Chemical description: Fully hydrogenated castor oil – glyceryl tri-hydroxystearate, produced by catalytic hydrogenation of castor oil.
In accordance with Annex 4.3.3 of the GHS, the product contains:

Identification	Chemical Name / Classification	Concentration
CAS: 8001-78-3	Hydrogenated Castor Oil – Not classified	≥ 99%

To obtain more information on the hazards of the substances, consult sections 11, 12 and 16.

3.2 Mixtures:

Non-applicable

SECTION 4: FIRST AID MEASURES

4.1 Description of necessary first-aid measures:

Low-hazard product; no special first-aid measures normally required beyond those for a thermal burn (molten form) or nuisance dust.

By inhalation:

Not a normal route of exposure. If dust is inhaled during flaking/grinding, remove to fresh air.

By skin contact:

In molten form, cool burn area immediately with running water; do not peel off adhered wax. Seek medical attention for burns. In flake/solid form, wash with soap and water if irritation occurs.

By eye contact:

Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Seek medical advice if irritation persists.

By ingestion/aspiration:

Rinse mouth with water. Not expected to be acutely toxic; seek medical advice if discomfort occurs.

4.2 Most important symptoms/effects, acute and delayed:

Thermal burn risk from molten material. Mild irritation possible on prolonged skin/eye contact with dust. See Sections 2 and 11.

4.3 Indication of immediate medical attention and special treatment needed, if necessary:

Treat as thermal burn where molten material is involved.

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable extinguishing media:
Suitable: Water fog/spray, foam (AFFF), dry chemical powder (ABC), carbon dioxide (BC)
Unsuitable: High-pressure water jet on molten material

5.2 Specific hazards arising from the chemical:
Combustible solid wax. Fine dust/powder may present a combustible dust hazard if dispersed in air near an ignition source. Molten product can cause splash burns.

5.3 Special protective actions for fire-fighters:
Evacuate non-essential personnel. Use self-contained breathing apparatus (SCBA) in enclosed fires. Cool exposed containers with water spray.

Additional provisions:
Avoid dispersing dust clouds near ignition sources.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:
For non-emergency personnel:
Avoid slipping on spilled flakes/molten material. Use appropriate PPE (Section 8).
For emergency responders:
Wear suitable protective equipment, including heat-resistant gloves for molten material spills.

6.2 Environmental precautions:
Prevent entry into drains, sewers and watercourses. Not expected to be environmentally hazardous in small quantities.

6.3 Methods and materials for containment and cleaning up:
Allow molten material to solidify, then sweep/shovel flakes into suitable containers. Avoid generating dust; use wet methods or vacuum with appropriate filtration if dusty.

6.4 Reference to other sections:
See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:
A. General precautions for safe use:
Avoid skin contact with molten material. Minimise dust generation during flaking/grinding; use local exhaust ventilation where needed.

B. Technical recommendations for the prevention of fires and explosions:
Keep away from open flame/ignition sources, particularly where fine dust may accumulate. Bond/ground equipment during bulk powder transfer to control static.

C. Technical recommendations on general occupational hygiene:
Wash hands after handling. Avoid inhalation of dust.

D. Technical recommendations to prevent environmental risks:
Prevent spillage from entering drains or watercourses.

7.2 Conditions for safe storage, including any incompatibilities:
A. Specific storage requirements:

Minimum Temp.	5°C
Maximum Temp.	35°C
Maximum time	24 Months (in original sealed packaging, cool/dry place)

B. General conditions for storage:
Store in a cool, dry, well-ventilated place away from direct sunlight and heat sources (melting point approx. 85–88°C). Keep containers/bags properly closed and labelled.

7.3 Specific end use(s):
Industrial raw material as described in Section 1.2. Except for the instructions already specified, no special recommendations are required.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters:
No specific occupational exposure limit (OEL) has been established for Hydrogenated Castor Oil under the Factories Act, 1948 (as amended). General particulate-not-otherwise-classified (PNOC) nuisance dust limits may be applied where dust is generated.

Identification	Occupational Exposure Limit Type	Value
Hydrogenated Castor Oil CAS: 8001-78-3	Not established	Typical value – refer to current specification sheet

8.2 Appropriate engineering controls:
General ventilation is normally adequate. Use local exhaust ventilation/dust extraction where flaking, grinding or milling generates dust.

B. Respiratory protection:
Not normally required. Use a particulate (dust) respirator (FFP2/P2) where dust levels are elevated.

C. Specific protection for the hands:
Heat-resistant gloves for molten material; general-purpose gloves for flake/powder handling.

D. Eye and face protection:
Safety glasses/goggles recommended, particularly for molten material or dusty operations.

E. Bodily protection:
Heat-resistant apron for molten handling; general work clothing otherwise.

F. Additional emergency measures:
Eyewash station and washing facilities should be available in the work area.

Environmental exposure controls:
Avoid release to the environment. See subsection 7.1.D.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:

Appearance	
Physical state at 20°C	Solid (flakes/powder)
Appearance	White to off-white waxy flakes
Color	White / off-white
Odor	Faint, characteristic
Odour threshold	Not established

Volatility	
Boiling point at atmospheric pressure	Not applicable (decomposes before boiling)
Vapour pressure at 20°C	Negligible
Evaporation rate at 20°C	Negligible
Product Description	
Density / Relative density at 20°C	0.95 – 0.97 g/cm³
Dynamic / Kinematic viscosity	Not applicable (solid at 20°C)
Concentration	Non-applicable (single substance)
pH	Not relevant (water-insoluble wax)
Vapour density at 20°C	Not relevant
Partition coefficient n-octanol/water	Not established
Solubility in water at 20°C	Insoluble; soluble in hot alcohol, chlorinated solvents
Decomposition temperature	> 300°C (typical)
Melting point/freezing point	85 – 88°C
Flammability	
Flash Point	> 250°C (typical, molten state)
Flammability (solid, gas)	Combustible solid wax
Autoignition temperature	Typical value – refer to current specification sheet
Lower / Upper flammability limit	Not established
Particle Characteristics	
Median equivalent diameter	Flake form, typically 2–5 mm; refer to current specification sheet

Values are typical for commercial-grade Hydrogenated Castor Oil Flakes – refer to current specification sheet for batch-specific figures.

9.2 Other information:

Explosive properties	Not relevant
Oxidising properties	Not an oxidiser
Corrosive to metals	Not corrosive
Heat of combustion	Typical value – refer to current specification sheet
Acid value	≤ 2 mg KOH/g (typical)
Hydroxyl value	155 – 165 (typical)
Iodine value	≤ 3 (typical, fully hydrogenated)

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:

Stable under normal conditions of use. May react with strong oxidising agents.

10.2 Chemical stability:

Chemically stable under the indicated conditions of storage, handling and use. Fully hydrogenated, so resistant to oxidative rancidity compared to unsaturated oils.

10.3 Possibility of hazardous reactions:

Under specified conditions, hazardous reactions are not expected.

10.4 Conditions to avoid:

Shock/Friction	Contact with Air	Increase in Temperature	Sunlight	Humidity
Avoid dust generation near ignition sources	Not applicable	Avoid heating above melting point unnecessarily	Not applicable	Not applicable

10.5 Incompatible materials:

Strong Oxidisers	Strong Acids/Alkalis	Heat Sources
Avoid contact	Avoid contact	Avoid unnecessary heating

10.6 Hazardous decomposition products:

Thermal decomposition/combustion may generate carbon monoxide and carbon dioxide.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:

Hydrogenated Castor Oil is of low acute toxicity. Based on available data, classification criteria for GHS hazard classes are not met.

A. Ingestion (acute effect):

Low acute oral toxicity expected (saturated glyceride).

B. Inhalation (acute effect):

Not a normal route of exposure; dust may cause mild mechanical irritation of airways.

C. Contact with skin and eyes (acute effect):

Generally considered non-irritating; molten material presents a thermal burn hazard rather than chemical irritation.

D. CMR effects (carcinogenicity, mutagenicity, reproductive toxicity):

Classification criteria for carcinogenicity, mutagenicity and reproductive toxicity are not met based on available data. IARC: Not listed.

E. Sensitizing effects:

Classification criteria for respiratory or skin sensitisation are not met based on available data.

F. Specific target organ toxicity (STOT) – single exposure:

Classification criteria are not met based on available data.

G. Specific target organ toxicity (STOT) – repeated exposure:

Classification criteria are not met based on available data.

H. Aspiration hazard:

Classification criteria are not met based on available data (solid at room temperature).

Product-specific toxicological information:

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Identification	Acute Toxicity	Genus
Hydrogenated Castor Oil CAS: 8001-78-3	LD50 oral: > 5000 mg/kg	Rat
	LD50 dermal: > 5000 mg/kg	Rabbit

SECTION 12: ECOLOGICAL INFORMATION

Not expected to be hazardous to the aquatic environment under GHS criteria.

12.1 Toxicity:

Acute Toxicity	Species	Genus
LC50: > 1000 mg/L (96h) (Typical value – refer to current specification sheet)	Non-applicable	Fish

12.2 Persistence and degradability:

Expected to be biodegradable; fully hydrogenated glyceride ester.

12.3 Bioaccumulative potential:

Not established.

12.4 Mobility in soil:

Koc	Henry	Dry Soil	Moist Soil
Not established	Not relevant	Low mobility (waxy solid)	Low mobility

12.5 Results of PBT and vPvB assessment:

Does not meet PBT/vPvB criteria.

12.6 Other adverse effects:

None known.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Disposal methods:

Dispose of via a licensed waste disposal contractor in accordance with national and local regulations, or recycle/reprocess where possible. Do not discharge to drains. Empty containers/bags may retain residue; dispose of as per label instructions.

SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land (ADR 2023 / RID 2023):

14.1 UN number	Non-applicable – not classified as dangerous goods
14.2 UN proper shipping name	Not applicable
14.3 Transport hazard class(es)	Not applicable
14.4 Packing group	N/A
14.5 Environmental hazard	No
14.6 Special precautions for user	Physico-chemical properties: see section 9
14.7 Transport in bulk (Annex II MARPOL 73/78, IBC Code)	Not relevant

Transport of dangerous goods by sea (IMDG 41-22):

14.1 UN number	Non-applicable – not classified as dangerous goods
14.2 UN proper shipping name	Not applicable
14.3 Transport hazard class(es)	Not applicable
14.4 Packing group	N/A
14.5 Marine pollutant	No
14.6 Special precautions for user	Non-applicable
14.7 Transport in bulk (Annex II MARPOL 73/78, IBC Code)	Not relevant

Transport of dangerous goods by air (IATA/ICAO 2024):

14.1 UN number	Non-applicable – not classified as dangerous goods
14.2 UN proper shipping name	Not applicable
14.3 Transport hazard class(es)	Not applicable
14.4 Packing group	N/A
14.5 Environmental hazard	No
14.6 Special precautions for user	Non-applicable
14.7 Transport in bulk (Annex II MARPOL 73/78, IBC Code)	Not relevant

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the product in question:

It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of local circumstances, in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

Other legislation:

Manufacture, Storage and Import of Hazardous Chemicals Rules 1989
The Factories Act, 1948 (Act No. 63 of 1948), as amended by the Factories (Amendment) Act, 1987 (Act 20 of 1987)

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:

This safety data sheet has been designed in accordance with Annex 4 – Guidance on the preparation of Safety Data Sheets of the Globally Harmonized System of Classification and Labelling of Chemicals (GHS).

Texts of the legislative phrases mentioned in sections 2 and 3:

Not applicable – product not classified as hazardous.

The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3.

Advice related to training:

Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:

The United Nations Economic Commission for Europe (UNECE); publicly available GHS classification references for hydrogenated vegetable oils/waxes.

Abbreviations and acronyms:

ADR: European agreement concerning the international carriage of dangerous goods by road | IMDG: International maritime dangerous goods code | IATA: International Air Transport Association | ICAO: International Civil Aviation Organisation | LD50: Lethal Dose 50 | LC50: Lethal Concentration 50 | Koc: Partition coefficient of organic carbon | IARC: International Agency for Research on Cancer

The information contained in this safety data sheet is based on sources, technical knowledge and current legislation, without being able to guarantee its accuracy. This information cannot be considered a guarantee of the properties of the product; it is simply a description of the security requirements. The occupational methodology and conditions for users of this product are not within Suraj Chemicals' awareness or control, and it is ultimately the responsibility of the user to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information on this safety data sheet only refers to this product, which should not be used for needs other than those specified.

END OF SAFETY DATA SHEET