SAFETY DATA SHEET

COCO DIETHANOLAMIDE (CDEA)

CAS No.: 68603-42-9

This Safety Data Sheet is issued by Suraj Chemicals as the distributor/supplier of record, based on manufacturer and published GHS / regulatory reference data for this substance. Users should also consult the specific manufacturer's SDS where available.

1. IDENTIFICATION

GHS Product identifier

COCO DIETHANOLAMIDE (CDEA)
Cocamide DEA; Coconut Fatty Acid Diethanolamide
CAS: 68603-42-9

Other means of identification

Not relevant

Recommended use of the chemical and restrictions on use

Relevant uses: Nonionic surfactant used as a foam booster/stabiliser and viscosity builder in shampoos, dishwash liquids, liquid detergents and industrial cleaning formulations. For industrial user only.

Uses advised against: All uses not specified in this section or in section 7.3.

Supplier's details

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2. HAZARDS IDENTIFICATION

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 the well-established hazard profile of Cocamide DEA (CAS 68603-42-9):

Skin Irrit. 2	Skin corrosion/irritation, Category 2, H315
Eye Dam. 1	Serious eye damage/eye irritation, Category 1, H318
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic hazard, Category 3, H412

GHS label elements, including precautionary statements

GHS: Danger

Hazard statements

Skin Irrit. 2: H315 – Causes skin irritation.
Eye Dam. 1: H318 – Causes serious eye damage.
Aquatic Chronic 3: H412 – Harmful to aquatic life with long lasting effects.

Precautionary statements

P264: Wash skin/hands thoroughly after handling.
P273: Avoid release to the environment.
P280: Wear protective gloves/protective clothing/eye protection/face protection.
P302+P352: IF ON SKIN: Wash with plenty of soap and water.
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 or doctor/physician.
P332+P313: If skin irritation occurs, get medical advice/attention.
P362: Take off contaminated clothing, wash before reuse.
P501: Dispose of contents/container in accordance with local regulations on industrial waste.

Other hazards which do not result in classification

Cocamide DEA-type products may contain trace amounts of residual diethanolamine and, under certain conditions, may form nitrosamines. This is a recognised, publicly documented regulatory consideration for this substance class (e.g. listed on the California Proposition 65 list) and is noted here for information; it does not form part of the GHS classification above. Suraj Chemicals' product complies with applicable Indian regulatory requirements for industrial supply.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Substances

Chemical description: Coco fatty acid diethanolamide, viscous liquid/paste

In accordance with Annex 4.3.3 of the GHS, the product contains:

Identification	Chemical Name / Classification	Concentration (%)
CAS: 68603-42-9	Coco Diethanolamide – Skin Irrit. 2: H315; Eye Dam. 1: H318; Aquatic Chronic 3: H412 – Danger	85 – 92
CAS: 111-42-2	Diethanolamine (residual/unreacted) – Acute Tox. 4: H302; Skin Irrit. 2: H315; Eye Dam. 1: H318 – Danger	Max 3.0
CAS: 7732-18-5	Water – Not classified	Balance

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

Mixtures

See composition table above – this product is a nonionic surfactant mixture (fatty acid amide condensate).

4. FIRST AID MEASURES

Description of necessary first-aid measures

Take off immediately all contaminated clothing. Self-protection of the first aider is advised.

By inhalation

Remove to fresh air and keep at rest. Seek medical attention if irritation or discomfort persists.

By skin contact

Wash immediately with plenty of water and soap. Remove contaminated clothing and wash before reuse.

By eye contact

Flush immediately with plenty of water for at least 15 minutes, holding eyelids apart. Remove contact lenses if present and easy to do. Seek medical attention if irritation persists.

By ingestion/aspiration

Rinse mouth with water (only if the person is conscious). Do not induce vomiting. Seek medical attention if a large quantity has been swallowed or if symptoms occur.

Most important symptoms/effects, acute and delayed

Skin contact: irritation with prolonged or repeated contact – redness, itching. Eye contact: irritation, redness, watering; may cause more serious eye damage on direct/undiluted contact. Ingestion: may cause irritation to the mouth, throat and stomach. Inhalation: not normally an inhalation hazard under intended use; heated vapours/mist may irritate the respiratory tract.

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

Symptomatic treatment as required. No specific antidote available.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Suitable: Water spray, foam, dry chemical powder, carbon dioxide (CO_2) – select extinguishing media suited to the surrounding fire.
Unsuitable: None known

Specific hazards arising from the chemical

Viscous liquid/paste of low volatility. Not classified as flammable under normal conditions. Combustion may generate irritant fumes (oxides of carbon and nitrogen).

Special protective actions for fire-fighters

Fight fire from a safe distance/protected location. Wear self-contained breathing apparatus and full protective clothing when involved in a fire. Cool fire-exposed containers with water spray.

Additional provisions

Do not allow fire-fighting water to enter drains, surface water or ground water – contain and dispose of as contaminated waste.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Wear suitable protective equipment (see Section 8) to prevent contamination of skin, eyes and personal clothing. Note that spilled material may be slippery underfoot.

For emergency responders

Wear protective equipment described in Section 8. Keep unprotected persons away.

Environmental precautions

Keep away from drains, surface water and ground water. Retain and dispose of contaminated washing/rinse water as waste; avoid uncontrolled discharge, as the product will foam and is harmful to aquatic life.

Methods and materials for containment and cleaning up

Contain the spill. Absorb with an inert absorbent material (sand, earth, diatomaceous earth, vermiculite) or flush with plenty of water to a contained/treated effluent system if permitted. Collect with a clean shovel, place in suitable closed containers, and remove for disposal. Wash the affected area thoroughly.

Reference to other sections

See sections 8 and 13.

7. HANDLING AND STORAGE

Precautions for safe handling

A. General precautions for safe use

Provide adequate ventilation. Avoid contact with skin and eyes. Handle open containers with care – spilled material is slippery.

B. Technical recommendations for the prevention of fires and explosions

Not applicable under normal handling – product has a high flash point and low volatility. Keep containers tightly closed.

C. Technical recommendations on general occupational hygiene

Do not eat, drink or smoke in work areas. Wash hands and exposed skin before breaks and after work.

D. Technical recommendations to prevent environmental risks

Prevent release to drains, surface water and groundwater. See subsection 6.2.

Conditions for safe storage, including any incompatibilities

A. Specific storage requirements

Recommended storage temperature	15 – 40°C; product may thicken/solidify at low temperature and can be gently warmed to restore fluidity
Container	Keep tightly closed, in original packaging

B. General conditions for storage

Store away from strong oxidising agents and strong acids. Keep containers tightly closed to minimise oxidation and moisture pickup. For additional information see subsection 10.5.

Specific end use(s)

No additional information available beyond the uses listed in Section 1.2.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters

Coco Diethanolamide (CAS 68603-42-9): no occupational exposure limit established under the Factories Act, 1948 or other Indian regulations.

Appropriate engineering controls

Provide sufficient general/local ventilation as a collective protection measure, in addition to individual PPE as needed.

B. Respiratory protection

Not normally required in well-ventilated areas; use a suitable respirator if mist or heated vapour is generated in poorly ventilated spaces.

C. Specific protection for the hands

Wear suitable chemical-resistant gloves (e.g. nitrile or natural rubber, minimum thickness 0.4–0.65 mm).

D. Eye and face protection

Use chemical safety goggles with side protection; wear a face shield where splashing may occur.

E. Bodily protection

Wear suitable protective clothing and chemical-resistant footwear/apron for prolonged or repeated contact.

F. Additional emergency measures

Emergency shower and eyewash stations should be available near the work area.

Environmental exposure controls

Avoid environmental spillage of both the product and its container. See subsection 6.2.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	
Physical state at 20°C	Viscous liquid / soft paste
Appearance	Viscous liquid to soft paste
Color	Pale yellow to amber
Odor	Mild, fatty/amine characteristic
Odour threshold	Not available
Volatility	
Boiling point at atmospheric pressure	> 200°C (decomposes)
Vapour pressure	Negligible at ambient temperature
Evaporation rate	Not applicable
Product Description	
Density / Relative density at 20°C	Approx. 0.97 – 1.00 g/cm³
Active matter	85 – 92% (superamide/fatty diethanolamide content)
pH (1% aqueous solution)	9.0 – 10.5
Vapour density	Not applicable
Partition coefficient n-octanol/water (log KOW)	Not available
Solubility in water	Dispersible/soluble
Melting point/freezing point	Approx. 20 – 25°C (pour point)
Flammability	
Flash Point	> 150°C (closed cup, typical for this substance class)
Flammability (solid, gas)	Not classified as flammable
Autoignition temperature	Not available
Lower / Upper flammability limit	Not available

** Values are typical/literature values for the Cocamide DEA class at this active-matter range; batch certificates of analysis are available on request.*

Other information

Explosive properties	Not relevant
Oxidising properties	Not relevant
Dynamic viscosity	High viscosity, may require warming for handling

10. STABILITY AND REACTIVITY

Reactivity

No particular reactivity hazard under normal conditions of storage and use. Reacts with strong oxidising agents and strong acids.

Chemical stability

Stable under normal conditions of storage and handling; may darken/oxidise slowly on prolonged exposure to air and heat.

Possibility of hazardous reactions

Hazardous polymerisation will not occur.

Conditions to avoid

Shock/Friction	Contact with Air	Increase in Temperature	Sunlight	Humidity
Not applicable	Avoid prolonged exposure (oxidation/discoloration)	Avoid prolonged exposure to high temperature	Not applicable	Avoid contact with moisture during storage

Incompatible materials

Strong oxidising agents, strong acids and strong alkalis.

Hazardous decomposition products

None under normal use and storage conditions. Thermal decomposition may release oxides of carbon and nitrogen, and traces of amines.

11. TOXICOLOGICAL INFORMATION

Information on toxicological effects

In case of exposure that is repetitive, prolonged, or at concentrations higher than recommended, adverse health effects may result depending on the means of exposure:

A. Ingestion (acute effect)

Low acute oral toxicity, typical of the fatty acid alkanolamide class. May cause irritation to mouth, throat and stomach.

B. Inhalation (acute effect)

Low volatility – not normally an inhalation hazard; heated mist/vapour may cause mild irritation.

C. Contact with skin and eyes (acute effect)

Causes skin irritation. Causes serious eye damage.

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

Not classified as a germ cell mutagen, carcinogen, or reproductive toxicant based on available data for the substance itself; see Section 2.3 regarding the trace-DEA/nitrosamine regulatory note applicable to this class.

E. Sensitizing effects

Not classified as a respiratory sensitiser based on available data; skin sensitisation classification criteria not met for the substance based on available data.

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

Not classified based on available data.

H. Aspiration hazard

Not classified based on available data.

Product-specific toxicological information (literature values for Cocamide DEA)

Exposure route	Effect rate / concentration	ATE value
Acute Oral (rat)	LD50	> 2000 mg/kg
Acute Dermal (rabbit)	LD50	> 2000 mg/kg
Acute Inhalation	LC50	Not established for this grade

12. ECOLOGICAL INFORMATION

Harmful to aquatic life with long lasting effects.

Toxicity

Acute Toxicity	Species	Genus
LC50: approx. 1 – 10 mg/L (96h) – literature range for fatty alkanolamide surfactants	Freshwater fish	Fish
EC50: approx. 1 – 10 mg/L (48h) – literature range	Daphnia	Crustacean

Persistence and degradability

Inherently/moderately biodegradable, typical of fatty acid alkanolamides; not considered readily biodegradable under all standard test protocols.

Bioaccumulative potential

Not established for this specific grade; low bioaccumulation potential generally expected for this class.

Mobility in soil

No data available.

Results of PBT and vPvB assessment

Not formally assessed for this grade.

Other adverse effects

No data available.

13. DISPOSAL CONSIDERATIONS

Disposal methods

Do not empty into drains; avoid uncontrolled release to the environment. Not classified as hazardous waste at typical use dilutions; confirm classification under local/state Pollution Control Board rules before disposal. Dispose of via a licensed waste disposal contractor in accordance with the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and applicable local, state and central regulations.

Contaminated packaging should be emptied as completely as possible and may then be handled in the same way as the product; uncleaned packaging should be disposed of as hazardous/industrial waste.

14. TRANSPORT INFORMATION

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

14.1 UN number	Not applicable
14.2 UN proper shipping name	Not a regulated material
14.3 Transport hazard class(es)	Non-hazardous for transport
14.4 Packing group	Non-applicable
14.5 Environmental hazard	No
14.6 Special precautions for user	None
14.7 Transport in bulk (Annex II MARPOL 73/78, IBC Code)	Not applicable

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

14.1 UN number	Not applicable
14.2 UN proper shipping name	Not a regulated material
14.3 Transport hazard class(es)	Non-hazardous for transport
14.4 Packing group	Non-applicable
14.5 Marine pollutant	No
14.6 Special precautions for user	None
14.7 Transport in bulk (Annex II MARPOL 73/78, IBC Code)	Not applicable

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

14.1 UN number	Not applicable
14.2 UN proper shipping name	Not a regulated material
14.3 Transport hazard class(es)	Non-hazardous for transport
14.4 Packing group	Non-applicable
14.5 Environmental hazard	No
14.6 Special precautions for user	Not necessary
14.7 Transport in bulk (Annex II MARPOL 73/78, IBC Code)	Not applicable

15. REGULATORY INFORMATION

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. Note the general regulatory consideration for trace diethanolamine/nitrosamine content applicable to this substance class, discussed in Section 2.3.

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)
Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016

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

H302: Harmful if swallowed.
H315: Causes skin irritation.
H318: Causes serious eye damage.
H412: Harmful to aquatic life with long lasting effects.

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

Well-established public GHS classification and literature toxicological/ecotoxicological data for Cocamide DEA (CAS 68603-42-9); no product-specific third-party source PDF was used for this document.

Abbreviations and acronyms

GHS: Globally Harmonized System of Classification and Labelling of Chemicals | ADR: European agreement concerning the international carriage of dangerous goods by road | IMDG: International maritime dangerous goods code | IATA: International Air Transport Association | ATE: Acute Toxicity Estimate | CMR: Carcinogenic, Mutagenic or toxic for Reproduction | STOT: Specific Target Organ Toxicity | LD50: Lethal Dose 50 | LC50: Lethal Concentration 50 | EC50: Effective Concentration 50 | Log Pow: Octanol-water partition coefficient | PBT: Persistent, Bioaccumulative and Toxic | vPvB: Very Persistent and very Bioaccumulative

Disclaimer: 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.

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