Chemical Safety Data Sheet MSDS / SDS

Docusate sodium SDS

Revision Date:2024-04-25 Revision Number:1

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

Product identifier

Product name: Docusate sodium

CAS: 577-11-7

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

Relevant identified uses: For R&D use only. Not for medicinal, household or other use.

Uses advised against: none

Company Identification

Company: Chemicalbook.in

Address: 5 vasavi Layout Basaveswara Nilayam Pragathi Nagar Hyderabad, India -500090

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SECTION 2: Hazards identification

Classification of the substance or mixture

Skin irritation, Category 2
Serious eye damage, Category 1

GHS label elements, including precautionary statements

Pictogram(s)

Signal word Danger

Hazard statement(s)

H315 Causes skin irritation
H318 Causes serious eye damage

Precautionary statement(s)

Prevention

P264 Wash ... thoroughly after handling.
P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection/...

Response

P302+P352 IF ON SKIN: Wash with plenty of water/...
P321 Specific treatment (see ... on this label).
P332+P317 If skin irritation occurs: Get medical help.
P362+P364 Take off contaminated clothing and wash it before reuse.
P305+P354+P338 IF IN EYES: Immediately rinse with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P317 Get medical help.

Storage

none

Disposal

none

Other hazards which do not result in classification

no data available

SECTION 3: Composition/information on ingredients

Substance

Chemical name:	Docusate sodium
Common names and synonyms:	Docusate sodium
CAS number:	577-11-7
EC number:	209-406-4
Concentration:	100%

SECTION 4: First aid measures

Description of necessary first-aid measures

If inhaled

Move the victim into fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration and consult a doctor immediately. Do not use mouth to mouth resuscitation if the victim ingested or inhaled the chemical.

Following skin contact

Take off contaminated clothing immediately. Wash off with soap and plenty of water. Consult a doctor.

Following eye contact

Rinse with pure water for at least 15 minutes. Consult a doctor.

Following ingestion

Rinse mouth with water. Do not induce vomiting. Never give anything by mouth to an unconscious person. Call a doctor or Poison Control Center immediately.

Most important symptoms/effects, acute and delayed

Liquid is strong irritant to eye and may irritate skin by removing natural oils. Ingestion causes diarrhea and intestinal bloating. (USCG, 1999)

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

Minimum/Potential Fatal Human Dose

3. 3= moderately toxic: probable oral lethal dose (human) 0.5-5 g/kg, between 1 oz & 1 pint for 70 kg person (150 lb).

Absorption, Distribution and Excretion

Drug is absorbed from gi tract & is excreted in significant concn in bile.

SECTION 5: Firefighting measures

Suitable extinguishing media

Use dry chemical, carbon dioxide or alcohol-resistant foam.

Specific hazards arising from the chemical

Behavior in Fire: Causes foaming and spreading of water. Assists in putting out fires by water. (USCG, 1999)

Special protective actions for fire-fighters

Wear self-contained breathing apparatus for firefighting if necessary.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Avoid dust formation. Avoid breathing mist, gas or vapours.Avoid contacting with skin and eye. Use personal protective equipment.Wear chemical impermeable gloves. Ensure adequate ventilation.Remove all sources of ignition. Evacuate personnel to safe areas.Keep people away from and upwind of spill/leak.

Environmental precautions

Prevent further spillage or leakage if it is safe to do so. Do not let the chemical enter drains. Discharge into the environment must be avoided.

Methods and materials for containment and cleaning up

Collect and arrange disposal. Keep the chemical in suitable and closed containers for disposal. Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment. Adhered or collected material should be promptly disposed of, in accordance with appropriate laws and regulations.

SECTION 7: Handling and storage

Precautions for safe handling

Handling in a well ventilated place. Wear suitable protective clothing. Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Use non-sparking tools. Prevent fire caused by electrostatic discharge steam.

Conditions for safe storage, including any incompatibilities

Capsules of the docusate salts should be stored in tight containers at 15-30 degrees C; docusate sodium solution should be stored in tight containers, and docusate sodium syrup should be stored in tight, light-resistant containers.

SECTION 8: Exposure controls/personal protection

Control parameters

Occupational Exposure limit values

no data available

Biological limit values

no data available

Appropriate engineering controls

Ensure adequate ventilation. Handle in accordance with good industrial hygiene and safety practice. Set up emergency exits and the risk-elimination area.

Individual protection measures, such as personal protective equipment (PPE)

Eye/face protection

Wear tightly fitting safety goggles with side-shields conforming to EN 166(EU) or NIOSH (US).

Skin protection

Wear fire/flame resistant and impervious clothing. Handle with gloves. Gloves must be inspected prior to use. Wash and dry hands. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Respiratory protection

If the exposure limits are exceeded, irritation or other symptoms are experienced, use a full-face respirator.

Thermal hazards

no data available

SECTION 9: Physical and chemical properties and safety characteristics

Physical state:	Dioctyl sodium sulfosuccinate is an odorless colorless to white waxy solid. Sinks and mixes slowly with water. (USCG, 1999)
Colour:	WHITE, WAX-LIKE SOLID
Odour:	CHARACTERISTIC ODOR
Melting point/freezing point:	58°C(lit.)
Boiling point or initial boiling point and boiling range:	142°C
Flammability:	no data available
Lower and upper explosion limit/flammability limit:	no data available
Flash point:	29°C(lit.)
Auto-ignition temperature:	no data available
Decomposition temperature:	no data available
pH:	no data available
Kinematic viscosity:	no data available

Solubility:	SOL IN WATER (G/L): 15 (25 DEG C), 23 (40 DEG C), 30 (50 DEG C), 55 (70 DEG C); SOL IN CARBON TETRACHLORIDE, PETROLEUM ETHER, NAPHTHA, XYLENE, DIBUTYL PHTHALATE, LIQUID PETROLATUM, ACETONE, ALCOHOL, VEGETABLE OILS; VERY SOL IN WATER-MISCIBLE ORGANIC SOLVENTS
Partition coefficient n-octanol/water:	no data available
Vapour pressure:	no data available
Density and/or relative density:	1.1
Relative vapour density:	no data available
Particle characteristics:	no data available

SECTION 10: Stability and reactivity

Reactivity

Mixes slowly with water.

Chemical stability

Stable in acid & neutral soln; hydrolyzes in alkaline soln

Possibility of hazardous reactions

DIOCTYL SODIUM SULFOSUCCINATE causes foaming and spreading of water. Assists in putting out fires by water. (USCG, 1999).

Conditions to avoid

no data available

Incompatible materials

no data available

Hazardous decomposition products

When heated to decomp, emits toxic fumes.

SECTION 11: Toxicological information

Acute toxicity

Oral: no data available

Inhalation: no data available

Dermal: no data available

Skin corrosion/irritation

no data available

Serious eye damage/irritation

no data available

Respiratory or skin sensitization

no data available

Germ cell mutagenicity

no data available

Carcinogenicity

no data available

Reproductive toxicity

no data available

STOT-single exposure

no data available

STOT-repeated exposure

no data available

Aspiration hazard

no data available

SECTION 12: Ecological information

Toxicity

Toxicity to fish: no data available

Toxicity to daphnia and other aquatic invertebrates: no data available

Toxicity to algae: no data available

Toxicity to microorganisms: no data available

Persistence and degradability

In a river die-away screen test of river water, bis(2-ethylhexyl)sodium sulfosuccinate biodegraded 95% (12 days), 91% (12 days), 91% (17 days), 97.3% (6 days), and 97.7% (3 days), at concentrations of 12.9, 4.5, 3.3, 11.3, and 12.9 ppm, respectively, with a lag period of 6 days(1). This study also conducted a sterile control in which there was 9% loss of bis(2-ethylhexyl)sodium sulfosuccinate(1). A BOD test of aerobic activated sludge biodegraded bis(2-ethylhexyl)sodium sulfosuccinate 80-95% after 8 hours from initial concentrations of 2-13 ppm with a 5-7 week lag(2). This same study tested sewage in the same manner and obtained 60-80% biodegradation of bis(2-ethylhexyl)sodium sulfosuccinate after a 3-9 week lag(2). A study using DOC found that bis(2-ethylhexyl)sodium sulfosuccinate (40 ppm) biodegraded 83% after 20 days in aerobic sewage(3). In an aerobic closed bottle screening study using activated sludge and soil inoculum, 100 mg/l bis(2-ethylhexyl)sodium sulfosuccinate had a 4 week theoretical BOD of 0-9%(4). With 1 mg added to 10 ml sediment, bis(2-ethylhexyl)sodium sulfosuccinate biodegraded 55-94% in river sediments, 8% in sand, and 13% in clay after 3 days(5).

Bioaccumulative potential

Based upon an experimental water solubility of 71,000 mg/l(1), the BCF of bis(2-ethylhexyl)sodium sulfosuccinate can be estimated to be approximately 1.13 from a regression-derived equation(2). The BCF for bis(2-ethylhexyl) sodium sulfosuccinate has also been experimentally determined to be <0.9 at 0.5 mg/l and < 9.3 at 0.05 mg/l for a 6 week duration(1). Based on these BCF values, bioconcentration is not expected to be an important fate process(SRC).

Mobility in soil

Using a structure estimation method based on molecular connectivity indexes, the Koc for bis(2-ethylhexyl) sodium sulfosuccinate can be estimated to be about 1041(1). The Koc for bis(2-ethylhexyl) sodium sulfosuccinate can be estimated to be about 9.37 based on an estimated water solubility of 71000 mg/L(3) and a regression derived equation(2). According to a suggested classification scheme(4), these estimated Koc values suggest that bis(2-ethylhexyl) sodium sulfosuccinate soil mobility is low to very high.

Other adverse effects

no data available

SECTION 13: Disposal considerations

Disposal methods

Product

The material can be disposed of by removal to a licensed chemical destruction plant or by controlled incineration with flue gas scrubbing. Do not contaminate water, foodstuffs, feed or seed by storage or disposal. Do not discharge to sewer systems.

Contaminated packaging

Containers can be triply rinsed (or equivalent) and offered for recycling or reconditioning. Alternatively, the packaging can be punctured to make it unusable for other purposes and then be disposed of in a sanitary landfill. Controlled incineration with flue gas scrubbing is possible for combustible packaging materials.

SECTION 14: Transport information

UN Number

ADR/RID: Not dangerous goods. (For reference only, please check.)
IMDG: Not dangerous goods. (For reference only, please check.)
IATA: Not dangerous goods. (For reference only, please check.)

UN Proper Shipping Name

ADR/RID: Not dangerous goods. (For reference only, please check.)
IMDG: Not dangerous goods. (For reference only, please check.)
IATA: Not dangerous goods. (For reference only, please check.)

Transport hazard class(es)

ADR/RID: Not dangerous goods. (For reference only, please check.)
IMDG: Not dangerous goods. (For reference only, please check.)
IATA: Not dangerous goods. (For reference only, please check.)

Packing group, if applicable

ADR/RID: Not dangerous goods. (For reference only, please check.)
IMDG: Not dangerous goods. (For reference only, please check.)
IATA: Not dangerous goods. (For reference only, please check.)

Environmental hazards

ADR/RID: No
IMDG: No
IATA: No

Special precautions for user

no data available

Transport in bulk according to IMO instruments

no data available

SECTION 15: Regulatory information

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

European Inventory of Existing Commercial Chemical Substances (EINECS)

Listed.

EC Inventory

Listed.

United States Toxic Substances Control Act (TSCA) Inventory

Listed.

China Catalog of Hazardous chemicals 2015

Not Listed.

New Zealand Inventory of Chemicals (NZIoC)

Listed.

(PICCS)

Listed.

Vietnam National Chemical Inventory

Listed.

IECSC)

Listed.

Korea Existing Chemicals List (KECL)

Listed.

SECTION 16: Other information

Abbreviations and acronyms

CAS: Chemical Abstracts Service

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

RID: Regulation concerning the International Carriage of Dangerous Goods by Rail

IMDG: International Maritime Dangerous Goods

IATA: International Air Transportation Association

TWA: Time Weighted Average

STEL: Short term exposure limit

LC50: Lethal Concentration 50%

LD50: Lethal Dose 50%

EC50: Effective Concentration 50%

References

IPCS - The International Chemical Safety Cards (ICSC), website: http://www.ilo.org/dyn/icsc/showcard.home

HSDB - Hazardous Substances Data Bank, website: https://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm

IARC - International Agency for Research on Cancer, website: http://www.iarc.fr/

eChemPortal - The Global Portal to Information on Chemical Substances by OECD, website: http://www.echemportal.org/echemportal/index?pageID=0&request_locale=en

CAMEO Chemicals, website: http://cameochemicals.noaa.gov/search/simple

ChemIDplus, website: http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp

ERG - Emergency Response Guidebook by U.S. Department of Transportation, website: http://www.phmsa.dot.gov/hazmat/library/erg

Germany GESTIS-database on hazard substance, website: http://www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index-2.jsp

ECHA - European Chemicals Agency, website: https://echa.europa.eu/