

SAFETY DATA SHEET

Version: DK2017-18 Date: November 15, 2017

STEARIC ACID

1. Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Chemical Name	: Stearic Acid
Grade:	: 1842 1838
	:
Gross Formula	C18H36O2
Cas No.	: 57 - 11 - 4
EN No.	: 200 - 313 - 4

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

Application of the Substance/Mixture	: Anti-Freeze and de-icing products, Fillers, putties, plasters, modelling clay, Fertilizers, Fuels, Ink and toners, Products such as ph-regulators, flocculants, pre-cipitants, neutralization agents, Laboratory chemicals, Leather tanning, dye, finishing, impregnation and care products, Paper and board dye, finishing and impregnation products: including bleaches and other processing aids, Polishes and wax blends, Textile dyes, finishing and impregnating products; including bleaches and other processing aids, Air care products, Washing and cleaning products (including solvent based products), Water softeners, Hydraulic fluids, Lubricants, greases, release products, Metal working fluids, Cosmetics, personal care products, Perfumes, fragrances
--------------------------------------	---

1.3 Details of the supplier of the safety data sheet

Company	: PT. DUA KUDA INDONESIA Kawasan Berikat Nusantara Jl. Madiun Blok C.2-11 , Unit Usaha Kawasan Marunda, Jakarta Utara, 14120Indonesia
Telephone	: +62 21-44853559 44852388
Telefax	: +62 21-44853640 44853616
E-mail address	: peggy@duakuda.com
Mobile phone	: +86 13951386142

2. Hazards identification

2.1 GHS CLASSIFICATION

Classification (REGULATION (EC) No 1272/2008)

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

Classification (67/548/EEC, 1999/45/EC)

Not a hazardous substance or mixture according to EC-directives 67/548/EEC or 1999/45/EC.

2.2 GHS LABEL ELEMENTS

SAFETY DATA SHEET

STEARIC ACID

Signal word : Warning



Hazard statements

Prolonged exposure may cause irritation to eye and skin. Causes damage to organs(respiratory system). Causes damage to organs through prolonged or repeated exposure.

Precautionary statements

Prevention:Obtain special instructions before use. Use personal protective equipment as required. Wash thoroughly after handling. Do not eat, drink or smoke when using this product.

Response:Get medical advice/attention if you feel unwell.

Storage:Store in a well-ventilated place. Keep container tightly closed. Store locked up.

Disposal:Dispose of contents/container in accordance with local/regional/national regulations.

3. Composition/information on ingredients

3.1 Substances

Remarks : No dangerous ingredients according to Regulation (EC) No. 1907/2006

4. First aid measures

4.1 Description of first aid measures

If inhaled : If symptoms persist, call a physician.

In case of skin contact : Take off contaminated clothing and shoes immediately.
Wash off with soap and plenty of water.

In case of eye contact : Immediately flush eye(s) with plenty of water.
If eye irritation persists, consult a specialist.

If swallowed : If symptoms persist, call a physician.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms : None known.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment : None known.

5. Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Unsuitable extinguishing: High volume water jet media

5.2 Special hazards arising from the substance or mixture

Specific hazards during firefighting : Do not use a solid water stream as it may scatter and spread fire.

SAFETY DATA SHEET

STEARIC ACID

Do not allow run-off from fire fighting to enter drains or water courses.

5.3 Advice for firefighters

Special protective equipment for firefighters	: In the event of fire, wear self-contained breathing apparatus.
Further information	: Standard procedure for chemical fires. Use water spray to cool unopened containers.

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions	: Use personal protective equipment.
----------------------	--------------------------------------

6.2 Environmental precautions

Environmental precautions	: Prevent product from entering drains.
---------------------------	---

6.3 Methods and materials for containment and cleaning up

Methods for cleaning up	: Sweep up and shovel into suitable containers for disposal.
-------------------------	--

6.4 Reference to other sections

None.

7. Handling and storage

7.1 Precautions for safe handling

Advice on safe handling	: Handle in accordance with good industrial hygiene and safety practice.
-------------------------	--

Advice on protection against fire and explosion	: Normal measures for preventive fire protection.
---	---

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers	: Store in original container. Keep container tightly closed in a dry and well-ventilated place.
---	---

Advice on common storage	: No special restrictions on storage with other products.
--------------------------	---

7.3 Specific end uses

8. Exposure controls/personal protection

8.1 Control parameters

SAFETY DATA SHEET

STEARIC ACID

Contains no substances with occupational exposure limit values.

DNEL	:	End Use: Workers Exposure routes: Skin contact Potential health effects: Chronic effects Value: 10 mg/kg bw/day
DNEL	:	End Use: Workers Exposure routes: Inhalation Potential health effects: Chronic effects Value: 17.632 mg/m3
DNEL	:	End Use: general public Exposure routes: Skin contact Potential health effects: Chronic effects Value: 5 mg/kg bw/day
DNEL	:	End Use: general public Exposure routes: Inhalation Potential health effects: Chronic effects Value: 4.348 mg/m3
DNEL	:	End Use: general public Exposure routes: Ingestion Potential health effects: Chronic effects Value: 2.5 mg/kg bw/day
PNEC	:	Fresh water not applicable
PNEC	:	Marine water not applicable
PNEC	:	Water Intermittent use/release, not applicable
PNEC	:	Fresh water sediment no data available
PNEC	:	Marine sediment no data available
PNEC	:	Soil no data available
PNEC	:	Sewage Treatment Plant not applicable

8.2 Exposure controls

Personal protective equipment

Hand protection : For prolonged or repeated contact use protective gloves.

SAFETY DATA SHEET

STEARIC ACID

Eye protection	: Safety glasses
Skin and body protection	: Impervious clothing
Hygiene measures	: Handle in accordance with good industrial hygiene and safety practice.

Environmental exposure controls

General advice	: Prevent product from entering drains.
----------------	---

9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance	: solid
Colour	: white
Odour	: slight
Flash point	: estimated 180 - 202 °C, open cup
Ignition temperature	: Remarks: no data available
Lower explosion limit	: Note: no data available
Upper explosion limit	: Note: no data available
Flammability (solid, gas)	: does not ignite Method: Flammability (solids)
Oxidizing properties	: The substance or mixture is not classified as oxidizing.
Autoignition temperature	: ca. 350 °C
Melting point	: 53 -57 °C
Boiling point/boiling range	: 200 - 240 °C
Vapour pressure	: estimated 0.00005 hPa at 25 °C
Density	: 0.84 - 0.9 g/cm ³ at 20 °C
Water solubility	: estimated < 0.05 mg/l at 20 °C
Partition coefficient: n-octanol/water	: log Pow: estimated 7.05 - 8.23
Viscosity, kinematic	: 12 mm ² /s at 70 °C Method: ASTM D 445

SAFETY DATA SHEET

STEARIC ACID

Surface tension : 0.03 mN/m
at 20 °C

Evaporation rate : Note: no data available

9.2 Other information

Oxidising potential : Note: no data available

10. Stability and reactivity

10.1 Reactivity

no data available

10.2 Chemical stability

no data available

10.3 Possibility of hazardous reactions

Hazardous reactions : Note: Stable under recommended storage conditions.
: Dust may form explosive mixture in air.

10.4 Conditions to avoid

Conditions to avoid : None known.

10.5 Incompatible materials

Materials to avoid : Strong oxidizing agents

10.6 Hazardous decomposition products

Thermal decomposition : Note: no data available

11. Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Acute oral toxicity : LD50 Oral: > 5,000 mg/kg
Species: rat
Method: OECD Test Guideline 401
Remarks: Information given is based on data obtained from similar substances.

Acute inhalation toxicity : LC50: > 0.1621 mg/l
Exposure time: 4 h

Species: rat
Remarks: An LC50/inhalation/4h/rat could not be determined because no mortality of rats was observed at the maximum achievable concentration.

SAFETY DATA SHEET

STEARIC ACID

Information given is based on data obtained from similar substances.

Acute dermal toxicity

: LD50 Dermal: > 2,000 mg/kg
Species: rabbit
Remarks: Information given is based on data obtained from similar substances.

Skin corrosion/irritation

Skin irritation

: Species: rabbit
Result: No skin irritation
Method: OECD Test Guideline 404
Remarks: Information given is based on data obtained from similar substances.

Serious eye damage/eye irritation

Eye irritation

: Species: rabbit
Classification: No eye irritation
Method: OECD Test Guideline 405
Remarks: Information given is based on data obtained from similar substances.

Respiratory or skin sensitization

Sensitisation

: Buehler Test
Species: guinea pig
Classification: Did not cause sensitization on laboratory animals.
Remarks: Information given is based on data obtained from similar substances.

: Maximisation Test
Species: guinea pig
Classification: Did not cause sensitization on laboratory animals.
Remarks: Information given is based on data obtained from similar substances.

: Maximisation Test
Species: guinea pig
Classification: Did not cause sensitization on laboratory animals.
Method: OECD Test Guideline 406
Remarks: Information given is based on data obtained from similar substances.

: Species: Humans
Classification: Does not cause skin sensitization.
Remarks: Information given is based on data obtained from similar substances.

Germ cell mutagenicity

Genotoxicity in vitro

: in vitro assay
Mouse Lymphoma Cells
Result: negative

SAFETY DATA SHEET

STEARIC ACID

Method: EC B17 (OECD 476): Mammalian Cell Gene Mutation Test
Remarks: Information given is based on data obtained from similar substances.

: Ames test
Result: negative
Method: Mutagenicity (Salmonella typhimurium - reverse mutation assay)
Remarks: Information given is based on data obtained from similar substances.

: Chromosome aberration test in vitro
Result: negative
Method: OECD Test Guideline 473
Remarks: Information given is based on data obtained from similar substances.

Reproductive toxicity

Reproductive toxicity : Species: rat
Application Route: Oral
Method: OECD Test Guideline 422

Teratogenicity : Species: rat
Application Route: Oral
Method: OECD Test Guideline 422

Target Organ Systemic Toxicant - Single exposure

: Remarks: The substance or mixture is not classified as specific target organ toxicant, single exposure.

Target Organ Systemic Toxicant - Repeated exposure

: Species: rat, male and female
Application Route: Oral
No observed adverse effect level: 1000 mg/kg
Method: OECD Test Guideline 422
Information given is based on data obtained from similar substances.

: Species: rat, male
Application Route: Oral
No observed adverse effect level: ca.5000 mg/kg
Information given is based on data obtained from similar substances.

: Remarks: The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Further information

: no data available

SAFETY DATA SHEET

STEARIC ACID

12. Ecological information

12.1 Toxicity

Toxicity to fish

: LC50: > 1,000 mg/l
Exposure time: 48 h

Species: Leuciscus idus (Golden orfe)
static test Method: OECD Test Guideline 203

: LC50: > 1,000 mg/l
Exposure time: 96 h

Species: Danio rerio (zebra fish)
semi-static test Method: OECD Test Guideline 203
Remarks:
Information given is based on data obtained from similar substances.

: LC50: > 1,000 mg/l
Exposure time: 48 h

Species: Leuciscus idus (Golden orfe)
static test Method: OECD Test Guideline 203
Remarks:
Information given is based on data obtained from similar substances.

Toxicity to daphnia and other aquatic invertebrates.

: EC50: > 4.8 mg/l
Exposure time: 48 h
Species: Daphnia magna (Water flea)
Method: OECD Test Guideline 202
Remarks:
Information given is based on data obtained from similar substances.

: EC50: > 32 mg/l
Exposure time: 47 h
Species: Daphnia magna (Water flea)
Method: OECD Test Guideline 202
Remarks:
Information given is based on data obtained from similar substances.

: LC50: > 20 mg/l
Exposure time: 48 h
Species: Artemia Salina
Remarks:
Information given is based on data obtained from similar substances.

SAFETY DATA SHEET

STEARIC ACID

Toxicity to algae

: ErC50: > 0.9 mg/l
Exposure time: 72 h
Species: Pseudokirchneriella subcapitata (green algae)
Growth rate, static test
Method: OECD Test Guideline 201

: EbC50: > 0.9 mg/l
Exposure time: 72 h
Species: Pseudokirchneriella subcapitata (green algae)
Biomass, static test
Method: OECD Test Guideline 201

: NOEC: > 0.9 mg/l
Exposure time: 72 h
Species: Pseudokirchneriella subcapitata (green algae)
Growth rate, static test
Method: OECD Test Guideline 201

: NOEC: > 0.9 mg/l
Exposure time: 72 h

Biomass,
Method: OECD Test Guideline 201

:

Remarks:
Information given is based on data obtained from similar substances.

Toxicity to bacteria

: EC10: 883 mg/l
Exposure time: 18 h
Growth inhibition
Species: Pseudomonas putida
Method: ISO 10712
Remarks:
Information given is based on data obtained from similar substances.

Toxicity to daphnia and other aquatic invertebrates. (Chronic toxicity)

: NOEC: 0.22 mg/l
Exposure time: 21 d
reproduction rate
Species: Daphnia magna (Water flea)
semi-static test
Method: OECD Test Guideline 211
Remarks:
Information given is based on data obtained from similar substances.

Ecotoxicology Assessment

Acute aquatic toxicity : No toxic effects observed at the limit of solubility.

Chronic aquatic toxicity : No toxic effects observed at the limit of solubility.

SAFETY DATA SHEET

STEARIC ACID

12.2 Persistence and degradability

Biodegradability : Result: Readily biodegradable.
72 %
Testing period: 28 d
Method: CO2 Evolution Test
Remarks:
The 10 day time window criterion is not fulfilled.

: Result: Readily biodegradable.
71 %
Testing period: 28 d
Method: CO2 Evolution Test
Remarks:
The 10 day time window criterion is not fulfilled.

: 93 %
Testing period: 28 d
Method: CO2 Evolution Test

: 75 %
Testing period: 28 d
Method: CO2 Evolution Test

: 65 %
Testing period: 28 d

: Result: Readily biodegradable.
Method: QSAR

12.3 Bioaccumulative potential

Bioaccumulation : Species: Danio rerio (zebra fish)
Bioconcentration factor (BCF): 234 - 288

: Remarks:
Accumulation in terrestrial organisms is unlikely.

12.4 Mobility in soil

Surface tension : 0.03 mN/m
at 20 °C

Distribution among environmental compartments : Remarks:
no data available

Additional: Remarks:
adviceEnvironmental fate data available
and pathways

12.5 Results of PBT and vPvB assessment

SAFETY DATA SHEET

STEARIC ACID

This substance is not considered to be persistent, bioaccumulating nor toxic (PBT)., This substance is not considered to be very persistent nor very bioaccumulating (vPvB).

12.6 Other adverse effects

13. Disposal considerations

13.1 Waste treatment methods

Product : Dispose of product residue in accordance with the instructions of the person responsible for waste disposal.

Contaminated packaging : Empty remaining contents.

14. Transport information

Special precautions for user :

Not classified as dangerous in the meaning of transport regulations.

15. Regulatory information

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

Notification status

REACH	: On the inventory, or in compliance with the inventory
DSL	: All components of this product are on the Canadian DSL list.
AICS	: On the inventory, or in compliance with the inventory
ENCS	: On the inventory, or in compliance with the inventory
ISHL	: On the inventory, or in compliance with the inventory
KECI	: On the inventory, or in compliance with the inventory
PICCS	: On the inventory, or in compliance with the inventory
IECSC	: On the inventory, or in compliance with the inventory

15.2 Chemical Safety Assessment

not hazardous

16. Other information

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.