SAFETY DATA SHEET

[Required under safety and health regulations for shipping and handling]

Version: 2019
Date Updated: June 27, 2019

SECTION 1. - - - - - - - - - PRODUCT AND COMPANY IDENTIFICATION- - - - - - - - - -

Product Name	Sodium dodecyl sulfate (SDS)
Product Code(s)	SB0485
Recommended Use	For Laboratory Research Use Only Not for Human or Animal Drug Use
Supplier	Bio Basic Inc.
Address	20 Konrad Crescent, Markham, Ontario, Canada, L3R 8T4
Telephone	(905) 474 4493
Fax	(905) 474 5794
For Chemical Emergency Phone#	(416) 995 9730

SECTION 2. - - - - - - - - - - HAZARDS IDENTIFICATION - - - - - - - - -

2.1 Classification of the substance or mixtur

GHS Classification in accordance with 29 CFR 1910.1200 (OSHA HCS)

Hazard classes and hazard categories	Hazard statements
Flammable solid, category 2	H228
Acute toxicity, category 4, oral and inhalation	H302+H332
Serious eye damage, category 1	H318
Skin irritation, category 2	H315
Specific target organ toxicity (single exposure), category 3, vascular	H335

2.2 Label elements

Labelling in accordance with 29 CFR 1910.1200 (OSHA HCS)

Hazard pictograms

Signal word: Danger

Hazard statements	
H228	Flammable solid.
H302+H332	Harmful if swallowed or if inhaled.
H318	Causes serious eye damage.
H315	Causes skin irritation.
H335	May cause respiratory irritation.

Precautionary statements	
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P240	Ground/bond container and receiving equipment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P273	Avoid release to the environment.
P301+P330+P331	IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P302+P352	IF ON SKIN: Wash with plenty of water/…
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P310	IF exposed or concerned: Immediately call a POISON CENTER/doctor.

Hazards not otherwise classified
(HNOC) none/none

SECTION 3. - - - - - COMPOSITION/INFORMATION ON INGREDIENTS - - - - - -

3.1 Substances

Substance name	Sodium dodecyl sulphate (SDS)
Molecular formula	C12H25NaO4S
Molecular weight	288.38 g/mol
CAS No.	151-21-3

SECTION 4. - - - - - - - - - - FIRST-AID MEASURES- - - - - - - - - - -

4.1 General information

IF exposed: Immediately call a POISON CENTER/doctor. If unconscious place in recovery position and seek medical advice. Never give anything by mouth to an unconscious person or a person with cramps. Change contaminated, saturated clothing. Do not leave affected person unattended.

After inhalation

Immediately call a POISON CENTER/doctor. Remove casualty to fresh air and keep warm and at rest. If

breathing is irregular or stopped, administer artificial respiration.

In case of skin contact

After contact with skin, wash immediately with plenty of water and soap. Remove contaminated, saturated clothing immediately. In case of skin reactions, consult a physician.

After eye contact

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist. Protect uninjured eye. Remove contact lenses, if present and easy to do. Continue rinsing.

In case of ingestion

Immediately call a POISON CENTER/doctor. Do NOT induce vomiting. Rinse mouth thoroughly with water. Give nothing to eat or drink.

4.2 Most important symptoms/effects, acute and delayed

no data available

4.3 Indication of any immediate medical attention and special treatment needed

no data available

4.4 Self-protection of the first aider

First aider: Pay attention to self-protection!

4.5 Information to physician

no data available

SECTION 5. - - - - - - - - - FIRE FIGHTING MEASURES - - - - - - - - - -

5.1 Extinguishing media

Suitable extinguishing media

Water spray
ABC-powder
Carbon dioxide (CO2)
Nitrogen

Extinguishing media which must not be used for safety reasons no restriction

5.2 Specific hazards arising from the chemical

In case of fire may be liberated:
Carbon monoxide
Carbon dioxide (CO2)
Sulphur oxides

5.3 Advice for firefighters

DO NOT fight fire when fire reaches explosives.

Protective equipment and precautions for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing.

Additional information

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

Do not inhale explosion and combustion gases.

Use caution when applying carbon dioxide in confined spaces. Carbon dioxide can displace oxygen.

Use water spray/stream to protect personnel and to cool endangered containers.

In case of fire: Evacuate area.

SECTION 6. - - - - - - - - ACCIDENTAL RELEASE MEASURES- - - - - - - - -

6.1 Personal precautions, protective equipment and emergency procedures

Avoid dust formation.

6.2 Environmental precautions

Do not allow to enter into surface water or drains.

6.3 Methods and material for containment and cleaning up

Spilled product must never be returned to the original container for recycling. Clean contaminated articles and floor according to the environmental legislation. Collect in closed and suitable containers for disposal.

6.4 Additional information

Clear spills immediately.

SECTION 7. - - - - - - - - - - HANDLING AND STORAGE- - - - - - - - - -

7.1 Precautions for safe handling

All work processes must always be designed so that the following is as low as possible: Inhalation skin contact Eye contact Keep away from sources of ignition - No smoking. Usual measures for fire prevention. Take precautionary measures against static discharges. Protect from moisture.

7.2 Conditions for safe storage, including any incompatibilities

Recommended storage temperature: Ambient temperature

Keep container tightly closed and in a well-ventilated place. Keep/Store away from combustible materials.

7.3 Specific end use(s)

no data available

SECTION 8. - - - - - EXPOSURE CONTROLS/PERSONAL PROTECTION- - - - -

8.1 Control parameters

Does not contain substances above concentration limits fixing an occupational exposure limit.

8.2 Engineering controls

Appropriate engineering controls

Technical measures and the application of suitable work processes have priority over personal protection equipment. If handled uncovered, arrangements with local exhaust ventilation have to be used.

Personal protection equipment (PPE)

Wear suitable protective clothing. When handling with chemical substances, protective clothing must be worn.

Eye/face protection

Eye glasses with side protection

Skin protection

Wear suitable gloves. When handling with chemical substances, protective gloves must be worn. In the case of wanting to use the gloves again, clean them before taking off and air them well. Check leak tightness/impermeability prior to use.

By short-term hand contact

Suitable material: NBR (Nitrile rubber)

Thickness of the glove material: 0,12 mm
Breakthrough time (maximum wearing time): > 480 min

By long-term hand contact
Suitable material: NBR (Nitrile rubber)
Thickness of the glove material: 0,38 mm
Breakthrough time (maximum wearing time): > 480 min

Respiratory protection

Respiratory protection necessary at: aerosol or mist formation If exposure limits are exceeded or irritation is experienced, NIOSH approved respiratory protection should be worn.

Additional information

Wash hands before breaks and after work. Avoid contact with skin and eyes. When using do not eat, drink or smoke. Provide eye shower and label its location conspicuously.

Environmental exposure controls no data available

SECTION 9. - - - - - - - PHYSICAL AND CHEMICAL PROPERTIES - - - - - - -

9.1 Information on basic physical and chemical properties

(a) Appearance	
Physical state:	solid
Color:	white
(b) Odour:	no data available
(c) Odour threshold:	no data available

Safety relevant basic data

(d) pH:	6-9 (10 g/l; H2O; 20 °C)
(e) Melting point/freezing point:	204-207 °C
(f) Initial boiling point and boiling range:	no data available
(g) Flash point:	> 100 °C
(h) Evaporation rate:	no data available
(i) Flammability (solid, gas):	Flammable solid.
(j) Flammability or explosive limits	
Lower explosion limit:	no data available
Upper explosion limit:	no data available
(k) Vapour pressure:	no data available
(l) Vapour density:	no data available
(m) Relative density:	1.1 g/cm³ (20 °C)
(n) Solubility(ies)	
Water solubility (g/L):	~150 g/l (20 °C)
Soluble (g/L) in Ethanol:	no data available
(o) Partition coefficient: n-octanol/water:	1.6 (20 °C)
(p) Auto-ignition temperature:	no data available
(q) Decomposition temperature:	no data available
(r) Viscosity	
Kinematic viscosity:	no data available
Dynamic viscosity:	no data available
(s) Explosive properties:	not applicable

(t) Oxidising properties:	not applicable

9.2 Other information

Bulk density:	1.1 g/cm³ (20 °C)
Refraction index:	no data available
Dissociation constant:	no data available
Surface tension:	no data available
Henry constant:	no data available

SECTION 10. - - - - - - - - -STABILITY AND REACTIVITY - - - - - - - - -

10.1 Reactivity

no data available

10.2 Chemical stability

The product is chemically stable under standard ambient conditions (room temperature) .

10.3 Possibility of hazardous reactions

no data available

10.4 Conditions to avoid

no data available

10.5 Incompatible materials

no data available

10.6 Hazardous decomposition products

no data available

10.7 Additional information

no data available

Hazardous decomposition products formed under fire conditions. - Carbon oxides Other decomposition products - No data available
In the event of fire: see section 5

SECTION 11. - - - - - - - - - TOXICOLOGICAL INFORMATION - - - - - - - -

11.1 Information on toxicological effects

Acute effects

Acute oral toxicity:
LD50: > 1427 mg/kg - Rat - (OECD 401)

Acute dermal toxicity:
LD50: 580 mg/kg - Rabbit - (IUCLID)

Acute inhalation toxicity:
LC50: > 3900 mg/m3 - Rat - (National Library of Medicine ChemID Plus (NLM CIP))

Irritant and corrosive effects

Primary irritation to the skin:
Causes skin irritation.

Irritation to eyes:

Causes serious eye damage.

Irritation to respiratory tract:
May cause respiratory irritation.

Respiratory or skin sensitization
In case of skin contact: not sensitising
After inhalation: not sensitising

STOT-single exposure
May cause respiratory irritation.

STOT-repeated exposure not applicable

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)
Carcinogenicity
The table below indicates whether each agency has listed any ingredient as a carcinogen.

no data available	ACGIH	IARC	NTP	OSHA

Germ cell mutagenicity
No indications of human germ cell mutagenicity exist.

Reproductive toxicity
No indications of human reproductive toxicity exist.

Aspiration hazard not applicable

Other adverse effects no data available

Additional information no data available

SECTION 12. - - - - - - - - - ECOLOGICAL INFORMATION - - - - - - - - - -

12.1 Ecotoxicity

Fish toxicity:

LC50: 7.97 mg/l (96 h) - Fogels, A., and J.B. Sprague 1977. Comparative Short-Term Tolerance of Zebrafish, Flagfish, and Rainbow Trout to Five Poisons Including Potential Reference Toxicants. Water Res. 11(9):811-817

Daphnia toxicity:

EC50: 9.8 mg/l (48 h) - Rossini, G.D.B., and A.E. Ronco 1996. Acute Toxicity Bioassay Using Daphnia obtusa as a Test Organism. Environ.Toxicol.Water Qual. 11(3):255-258

LC50: 12.1 mg/l (48 h) - Lewis, P.A., and W.B. Horning II 1991. Differences in Acute Toxicity Test Results of Three Reference Toxicants on Daphnia at Two Temperatures. Environ.Toxicol.Chem. 10:1351-1357

Algae toxicity:

EC50: 15 mg/l (72 h) - Peterson, S.M., and J.L. Stauber 1996. new Algal Enzyme Bio assay for the Rapid Assessment of Aquatic Toxicity. Bull.Environ.Toxicol.Chem. 56(5):750-757

Bacteria toxicity: no data available

12.2 Persistence and degradability

no data available

12.3 Bioaccumulative potential

Partition coefficient: n-octanol/water: 1.6 (20 °C)

12.4 Mobility in soil:

no data available

12.5 Results of PBT/vPvB assessment

no data available

12.6 Other adverse effects

no data available

SECTION 13. - - - - - - - - - DISPOSAL CONSIDERATIONS - - - - - - - - -

13.1 Waste treatment methods

Appropriate disposal / Product

Dispose according to legislation. Consult the appropriate local waste disposal expert about waste disposal.

Waste code product: 160508

Appropriate disposal / Package

Dispose according to legislation. Handle contaminated packages in the same way as the substance itself.

Additional information no data available

SECTION 14. - - - - - - - - - - TRANSPORT INFORMATION - - - - - - - - -

Land transport (DOT)

UN-No.:	1325
Proper Shipping Name:	FLAMMABLE SOLID, ORGANIC, N.O.S. (SODIUM DODECYL SULPHATE)
Class(es):	4.1
Classification code:	F1

Hazard label(s):	4.1
Packing group:	III
Environmental hazards**:**	No
Marine pollutant:	no data available
Special precautions for user**:**	

Sea transport (IMDG)

UN-No.:	1325
Proper Shipping Name:	FLAMMABLE SOLID, ORGANIC, N.O.S. (SODIUM DODECYL SULPHATE)
Class(es):	4.1
Classification code:	
Hazard label(s):	4.1
Packing group:	III
Environmental hazards**:**	No
MARINE POLLUTANT:	No
Special precautions for user**:**	
Segregation group:	-
EmS-No.	F-A S-G

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code not relevant

Air transport (ICAO-TI / IATA-DGR)

UN-No.:	1325
Proper Shipping Name:	FLAMMABLE SOLID, ORGANIC, N.O.S. (SODIUM DODECYL SULPHATE)
Class(es):	4.1
Classification code:	
Hazard label(s):	4.1
Packing group:	III
Special precautions for user:	

SECTION 15. - - - - - - - - - REGULATORY INFORMATION - - - - - - - - - -

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

SARA 313 Components

Not listed.

Massachusetts Right To Know Components

Not listed.

Pennsylvania Right To Know Components

Not listed.

New Jersey Right To Know Components

Not listed.

California Prop. 65 Components

Not listed.

SECTION 16. - - - - - - - - - - OTHER INFORMATION- - - - - - - - - - -

Abbreviations and acronyms

ACGIH - American Conference of Governmental Industrial Hygiensts DOT - Department of Transportation

IARC - International Agency for Research on Cancer

IATA-DGR - International Air Transport Association-Dangerous Goods Regulations ICAO-TI - International Civil Aviation Organization-Technical Instructions

IMDG - International Maritime Code for Dangerous Goods LTV - Long Term Value

NIOSH - National Institute for Occupational Safety and Health NTP - National Toxicology Program

OSHA - Occupational Safety & Health Administration PBT - Persistent, Bioaccumulative and Toxic

PEL - Permissible Exposure Limit STV - Short Term Value

SVHC - Substances of Very High Concern TDG - Transport of Dangerous Goods TLV - Threshold Limit Value

vPvB - very Persistent, very Bioaccumulative

Additional information

Indication of changes: general update

Further information: no limited for paper copy, just for internal uses.
For research use only. Not intended for human or animal diagnostic or therapeutic uses.

Disclaimer

The information provided on this SDS 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 guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as 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 material or in any process, unless specified in the text.

End of SDS