



Creation Date 24-Nov-2010

Revision Date 24-Jun-2021

Revision Number 8

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product Description:	
Cat No. :	
Synonyms	
CAS-No	
EC-No.	
Molecular Formula	
Reach Registration Num	ber

Sodium dodecyl sulfate S/5200/53, S/5200/70 Sodium lauryl sulfate; SDS; Dodecyl Sodium Sulfate 151-21-3 205-788-1 C12 H25 Na O4 S

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

Recommended Use	Laboratory chemicals. Surfactant.
Sector of use	SU3 - Industrial uses: Uses of substances as such or in preparations at industrial sites
Product category	PC21 - Laboratory chemicals
Process categories	PROC15 - Use as a laboratory reagent
Environmental release category	ERC6a - Industrial use resulting in manufacture of another substance (use of intermediates)
Uses advised against	No Information available

1.3. Details of the supplier of the safety data sheet

Company	UK entity/business name Fisher Scientific UK Bishop Meadow Road, Loughborough, Leicestershire LE11 5RG, United Kingdom
	EU entity/business name Acros Organics BVBA Janssen Pharmaceuticalaan 3a 2440 Geel, Belgium
E-mail address	begel.sdsdesk@thermofisher.com
1.4. Emergency telephone number	Tel: 01509 231166 Chemtrec US: (800) 424-9300 Chemtrec EU: 001 (202) 483-7616

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

CLP Classification - Regulation (EC) No 1272/2008

Physical hazards

Sodium dodecyl sulfate

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Flammable solids	Category 2 (H228)
Health hazards	
Acute oral toxicity	Category 4 (H302)
Acute Inhalation Toxicity - Dusts and Mists	Category 4 (H332)
Skin Corrosion/Irritation	Category 2 (H315)
Serious Eve Damage/Eve Irritation	Category 1 (H318)

Category 3 (H412)

Category 3 (H335)

Full text of Hazard Statements: see section 16

Environmental hazards

Chronic aquatic toxicity

Specific target organ toxicity - (single exposure)

2.2. Label elements



Signal Word

Danger

Hazard Statements

- H228 Flammable solid
- H315 Causes skin irritation
- H318 Causes serious eye damage
- H335 May cause respiratory irritation
- H412 Harmful to aquatic life with long lasting effects
- H302 + H332 Harmful if swallowed or if inhaled
- May form combustible dust concentrations in air

Precautionary Statements

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking

- P280 Wear protective gloves/protective clothing/eye protection/face protection
- P301 + P330 + P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting
- 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

P310 - Immediately call a POISON CENTER or doctor/physician

2.3. Other hazards

Substance is not considered persistent, bioaccumulative and toxic (PBT) / very persistent and very bioaccumulative (vPvB)

May form explosible dust-air mixture if dispersed Toxicity to Soil Dwelling Organisms Toxic to terrestrial vertebrates

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SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances

Component	CAS-No	EC-No.	Weight %	CLP Classification - Regulation (EC) No 1272/2008
Sodium dodecyl sulphate	151-21-3	EEC No. 205-788-1	>95	Flam. Sol. 2 (H228) Acute Tox. 4 (H302) Skin Irrit. 2 (H315) Eye Irrit. 1 (H318) Acute Tox. 4 (H332) STOT SE 3 (H335) Aquatic Chronic 3 (H412)

Component	Specific concentration limits (SCL's)	M-Factor	Component notes
Sodium dodecyl sulphate	Eye Irrit. 1:: C>=20% Eye Irrit. 2 :: 10%<=C<20%	-	-

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Full text of Hazard Statements: see section 16

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

General Advice	If symptoms persist, call a physician.		
Eye Contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Immediate medical attention is required.		
Skin Contact	Wash off immediately with plenty of water for at least 15 minutes. If skin irritation persists, call a physician.		
Ingestion	Clean mouth with water and drink afterwards plenty of water. Get medical attention if symptoms occur.		
Inhalation	Remove to fresh air. If not breathing, give artificial respiration. Get medical attention if symptoms occur.		
Self-Protection of the First Aider	Use personal protective equipment as required.		
4.2. Most important symptoms and effects, both acute and delayed			
	Causes severe eye damage.		

4.3. Indication of any immediate medical attention and special treatment needed

Notes to Physician

Treat symptomatically.

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Suitable Extinguishing Media Water spray. Dry chemical. Foam.

Extinguishing media which must not be used for safety reasons

Carbon dioxide (CO₂).

5.2. Special hazards arising from the substance or mixture

Flammable. Dust can form an explosive mixture with air. Keep product and empty container away from heat and sources of ignition. Fine dust dispersed in air may ignite.

Hazardous Combustion Products

Carbon monoxide (CO), Carbon dioxide (CO₂), Sulfur oxides, Sodium oxides.

5.3. Advice for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Use personal protective equipment as required. Ensure adequate ventilation. Avoid dust formation.

6.2. Environmental precautions

Do not flush into surface water or sanitary sewer system.

6.3. Methods and material for containment and cleaning up

Sweep up and shovel into suitable containers for disposal. Keep in suitable, closed containers for disposal.

6.4. Reference to other sections

Refer to protective measures listed in Sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Wear personal protective equipment/face protection. Ensure adequate ventilation. Do not get in eyes, on skin, or on clothing. Avoid ingestion and inhalation. Avoid dust formation. Remove all sources of ignition. Take precautionary measures against static discharges.

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice.

7.2. Conditions for safe storage, including any incompatibilities

Keep containers tightly closed in a dry, cool and well-ventilated place. Flammables area.

Technical Rules for Hazardous Substances (TRGS) 510 Storage Class (LGK) Class 4.1B (Germany)

7.3. Specific end use(s)

Use in laboratories

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Exposure limits

This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies

Biological limit values

This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies

Derived No Effect Level (DNEL) / Derived Minimum Effect Level (DMEL)

See table for values

Component	Acute effects local (Dermal)	Acute effects systemic (Dermal)	Chronic effects local (Dermal)	Chronic effects systemic (Dermal)
Sodium dodecyl sulphate 151-21-3 (>95)				DNEL = 4060mg/kg bw/day

Component	Acute effects local (Inhalation)	Acute effects systemic (Inhalation)	Chronic effects local (Inhalation)	Chronic effects systemic (Inhalation)
Sodium dodecyl sulphate 151-21-3 (>95)				DNEL = 285mg/m ³

Predicted No Effect Concentration (PNEC)

See values below.

Component	Fresh water	Fresh water	Water Intermittent	Microorganisms in	Soil (Agriculture)
		sediment		sewage treatment	
Sodium dodecyl sulphate	PNEC = 0.176mg/L	PNEC = 6.97mg/kg	PNEC = 0.055mg/L	PNEC = 1.35mg/L	PNEC = 1.29mg/kg
151-21-3 (>95)		sediment dw			soil dw

Component	Marine water	Marine water sediment	Marine water intermittent	Food chain	Air
Sodium dodecyl sulphate	PNEC =	PNEC =			
151-21-3 (>95)	0.0176mg/L	0.697mg/kg			
		sediment dw			

8.2. Exposure controls

Engineering Measures

Use explosion-proof electrical/ventilating/lighting/equipment. Ensure that eyewash stations and safety showers are close to the workstation location.

Wherever possible, engineering control measures such as the isolation or enclosure of the process, the introduction of process or equipment changes to minimise release or contact, and the use of properly designed ventilation systems, should be adopted to control hazardous materials at source

Personal protective equipment Eye Protection	Goggles (European standard - EN 166)
Hand Protection	Protective gloves

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Glove material	Breakthrough time	Glove thickness	EU standard	Glove comments
Nitrile rubber	> 480 minutes	0.4mm	EN 374	As tested under EN374-3 Determination of
			Level 6	Resistance to Permeation by Chemicals
Skin and body prot		propriate protective al protection suit (EN	•	g to prevent skin exposure. Apron. Boots.
Refer to manufacturer/s	uctions regarding perm upplier for information) le for the task: Chemic o take into consideration	al compatability, Dex n the specific local co	terity, Operational	re provided by the supplier of the gloves. conditions, User susceptibility, e.g. ich the product is used, such as the danger
Respiratory Protect	appropri To prote	ate certified respirate	ors.	e the exposure limit they must use juipment must be the correct fit and be used
l arga caala/amargana			noon Standard Ch	1126 opproved reconstant if eveneouse limite

Large scale/emergency use	Use a NIOSH/MSHA or European Standard EN 136 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced Recommended Filter type: Particulates filter conforming to EN 143
Small scale/Laboratory use	Use a NIOSH/MSHA or European Standard EN 149:2001 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced. Recommended half mask:- Particle filtering: EN149:2001 When RPE is used a face piece Fit Test should be conducted
Environmental exposure controls	Prevent product from entering drains. Do not allow material to contaminate ground water

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

system.

Sodium dodecyl sulfate

Physical State	Solid Powder	
Appearance	Off-white	
Odor	Odorless	
Odor Threshold	No data available	
Melting Point/Range	206 °C / 402.8 °F	
Softening Point	No data available	
Boiling Point/Range	approx 216 °C	
Flammability (liquid)	Not applicable	Solid
Flammability (solid,gas)	No information available	
Explosion Limits	No data available	
Flash Point	170 °C / 338 °F	Method - No information available
Autoignition Temperature	310.5 °C / 590.9 °F	
Decomposition Temperature	> 216°C	
pH .	8.5-10	1% aq.sol
Viscosity	Not applicable	Solid
Water Solubility	Soluble	
Solubility in other solvents	No information available	
Partition Coefficient (n-octanol/wate	er)	
Component	log Pow	
Sodium dodecyl sulphate	-2.03	
Vapor Pressure	0.18 Pa @ 20 °C	
Density / Specific Gravity	No data available	
Bulk Density	200 - 300 g/L	

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Vapor Density	Not applicable	Solid
Particle characteristics	No data available	
9.2. Other information		
Molecular Formula	C12 H25 Na O4 S	
Molecular Weight	288.38	
Flammable solids	Burning rate or burning time Wetted zone passed - No	= > 2.2 mm/s or < 45 secs
Evaporation Rate	Not applicable - Solid	

SECTION 10: STABILITY AND REACTIVITY

No
Hygroscopic.
ions
Hazardous polymerization does not occur. None under normal processing.
Excess heat. Incompatible products. Avoid dust formation. Exposure to moist air or water.
Strong oxidizing agents. Strong acids. Strong bases.

10.6. Hazardous decomposition products

Carbon monoxide (CO). Carbon dioxide (CO₂). Sulfur oxides. Sodium oxides.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Product Information

Sodium dodecyl sulfate

(a) acute toxicity;

OralCategory 4DermalBased on available data, the classification criteria are not metInhalationCategory 4

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Sodium dodecyl sulphate	LD50 = 1288 mg/kg (Rat)	> 2000 mg/kg	3900 mg/m³ (Rat)1 h

(b) skin corrosion/irritation;	Category 2
Test method	OECD 404
Test species	rabbit
Observational endpoint	Irritating to skin
(c) serious eye damage/irritation;	Category 1
Test method	OECD 405

Sodium	dodecyl	sulfate
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Test species	rabbit
Observation end point	Severe eye irritant irreversible

(d) respiratory or skin sensitization;

Respiratory	Based on available data, the classification criteria are not met
Skin	Based on available data, the classification criteria are not met

(e) germ cell mutagenicity; Based on available data, the classification criteria are not met

Component	Test method	Test species	Study result	
Sodium dodecyl sulphate 151-21-3 (>95)	OECD Test Guideline 471 AMES test	Bacteria	negative	
	OECD Test Guideline 474 Mouse micronucleus assay	mouse	negative	
(f) carcinogenicity;	Based on available data, the cla	assification criteria are not met		
	There are no known carcinogenic chemicals in this product			
(g) reproductive toxicity;	Based on available data, the cla	assification criteria are not met		
(h) STOT-single exposure;	Category 3			
Results / Target organs	Respiratory system.			
(i) STOT-repeated exposure;	Based on available data, the cla	assification criteria are not met		
Target Organs	None known.			
(j) aspiration hazard;	Not applicable Solid			
Symptoms / effects,both acute and delayed	and No information available.			

11.2. Information on other hazards

Endocrine Disrupting Properties

Assess endocrine disrupting properties for human health. This product does not contain any known or suspected endocrine disruptors.

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity Ecotoxicity effects

The product contains following substances which are hazardous for the environment. Contains a substance which is:. Toxic to aquatic organisms.

Component	Freshwater Fish	Water Flea	Freshwater Algae
Sodium dodecyl sulphate	LC50 > 10-100 mg/l, Pimephales	EC50: = 1.8 mg/L, 48h (Daphni	a EC50: 3.59 - 15.6 mg/L, 96h
	promelas (OECD 203)	magna)	static (Pseudokirchneriella
			subcapitata)
			EC50: = 117 mg/L, 96h
			(Pseudokirchneriella subcapitata)
			EC50: 30 - 100 mg/L, 96h
			(Desmodesmus subspicatus)
			EC50: = 53 mg/L, 72h

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Component	Microtox	M-Factor
Sodium dodecyl sulphate	EC50 = 0.46 mg/L Photobacterium phosphoreum	
	30 min	
	EC50 = 0.72 mg/L Photobacterium phosphoreum	
	15 min	
	EC50 = 1.19 mg/L Photobacterium phosphoreum 5	
	min	

12.2. Persistence and degradability Persistence Degradation in sewage treatment plant	Expected to be biodegradable Persistence is unlikely. Contains substances known to be hazardous t water treatment plants.	to the environment or not degradable in waste			
12.3. Bioaccumulative potential	Bioaccumulation is unlikely				
Component	log Pow	Bioconcentration factor (BCF)			
Sodium dodecyl sulphate	-2.03	1.6			
<u>12.4. Mobility in soil</u>	The product is water soluble, and may spread in water systems . Will likely be mobile in the environment due to its water solubility. Highly mobile in soils				
12.5. Results of PBT and vPvB assessment	Substance is not considered persistent, bioaccumulative and toxic (PBT) / very persistent and very bioaccumulative (vPvB).				
<u>12.6. Endocrine disrupting</u> <u>properties</u> Endocrine Disruptor Information	This product does not contain any known or su	uspected endocrine disruptors			
12.7. Other adverse effects Persistent Organic Pollutant Ozone Depletion Potential	This product does not contain any known or su This product does not contain any known or su	uspected substance			
SE	CTION 13: DISPOSAL CONSIDER	ATIONS			
13.1. Waste treatment methods	Waste is classified as bazardous. Dispose of i				

Waste from Residues/Unused Products	on waste and hazardous waste. Dispose of in accordance with local regulations.
Contaminated Packaging	Dispose of this container to hazardous or special waste collection point. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Keep product and empty container away from heat and sources of ignition.
European Waste Catalogue (EWC)	According to the European Waste Catalog, Waste Codes are not product specific, but application specific.
Other Information	Do not flush to sewer. Waste codes should be assigned by the user based on the application for which the product was used. Can be landfilled or incinerated, when in compliance with local regulations. Do not empty into drains. Do not let this chemical enter the environment.

SECTION 14: TRANSPORT INFORMATION

IMDG/IMO	
<u>14.1. UN number</u> <u>14.2. UN proper shipping name</u> Technical Shipping Name <u>14.3. Transport hazard class(es)</u> <u>14.4. Packing group</u>	UN1325 Flammable solid, organic, n.o.s. Sodium dodecyl sulfate 4.1 III
ADR	
<u>14.1. UN number</u> <u>14.2. UN proper shipping name</u> Technical Shipping Name <u>14.3. Transport hazard class(es)</u> <u>14.4. Packing group</u>	UN1325 Flammable solid, organic, n.o.s. Sodium dodecyl sulfate 4.1 III
IATA	
<u>14.1. UN number</u> <u>14.2. UN proper shipping name</u> Technical Shipping Name <u>14.3. Transport hazard class(es)</u> <u>14.4. Packing group</u>	UN1325 Flammable solid, organic, n.o.s. Sodium dodecyl sulfate 4.1 III
14.5. Environmental hazards	No hazards identified
14.6. Special precautions for user	No special precautions required
14.7. Maritime transport in bulk according to IMO instruments	Not applicable, packaged goods
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SECTION 15: REGULATORY INFORMATION

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

International Inventories

X = listed, Europe (EINECS/ELINCS/NLP), U.S.A. (TSCA), Canada (DSL/NDSL), Philippines (PICCS), China (IECSC), Japan (ENCS), Japan (ISHL), Australia (AICS), Korea (KECL).

Component	EINECS	ELINCS	NLP	TSCA	DSL	NDSL	PICCS	IECSC	ENCS	ISHL	AICS	KECL
Sodium dodecyl sulphate	205-788-1	-		Х	Х	-	Х	Х	Х	Х	Х	KE-21884

Component	REACH (1907/2006) - Annex XIV - Substances Subject to Authorization	REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous Substances	REACH Regulation (EC 1907/2006) article 59 - Candidate List of Substances of Very High Concern (SVHC)
Sodium dodecyl sulphate		Use restricted. See item 40. (see link for restriction details)	

https://echa.europa.eu/substances-restricted-under-reach

Regulation (EC) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of dangerous chemicals

Not applicable

National Regulations

WGK Classification

See table for values

Component	Germany - Water Classification (VwVwS)	Germany - TA-Luft Class

Sodium dodecyl sulphate	WGK2	

UK - Take note of Control of Substances Hazardous to Health Regulations (COSHH) 2002 and 2005 Amendment

15.2. Chemical safety assessment

A Chemical Safety Assessment/Report (CSA/CSR) has not been conducted

SECTION 16:	OTHER	INFORMAT	ION
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Full text of H-Statements referred to under sections 2 and 3

H228 - Flammable solid

Sodium dodecyl sulfate

H302 - Harmful if swallowed

H332 - Harmful if inhaled

H315 - Causes skin irritation

H318 - Causes serious eye damage

H335 - May cause respiratory irritation

H412 - Harmful to aquatic life with long lasting effects

Legend

CAS - Chemical Abstracts Service EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances PICCS - Philippines Inventory of Chemicals and Chemical Substances IECSC - Chinese Inventory of Existing Chemical Substances KECL - Korean Existing and Evaluated Chemical Substances	 TSCA - United States Toxic Substances Control Act Section 8(b) Inventory al DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List ENCS - Japanese Existing and New Chemical Substances AICS - Australian Inventory of Chemical Substances NZIOC - New Zealand Inventory of Chemicals
WEL - Workplace Exposure Limit ACGIH - American Conference of Governmental Industrial Hygienists DNEL - Derived No Effect Level RPE - Respiratory Protective Equipment LC50 - Lethal Concentration 50% NOEC - No Observed Effect Concentration PBT - Persistent, Bioaccumulative, Toxic	 TWA - Time Weighted Average IARC - International Agency for Research on Cancer Predicted No Effect Concentration (PNEC) LD50 - Lethal Dose 50% EC50 - Effective Concentration 50% POW - Partition coefficient Octanol:Water vPvB - very Persistent, very Bioaccumulative
ADR - European Agreement Concerning the International Carriage of Dangerous Goods by Road IMO/IMDG - International Maritime Organization/International Maritime Dangerous Goods Code OECD - Organisation for Economic Co-operation and Development BCF - Bioconcentration factor Key literature references and sources for data https://echa.europa.eu/information-on-chemicals	ICAO/IATA - International Civil Aviation Organization/International Air Transport Association MARPOL - International Convention for the Prevention of Pollution from Ships ATE - Acute Toxicity Estimate VOC - (Volatile Organic Compound)

Suppliers safety data sheet, Chemadvisor - LOLI, Merck index, RTECS

Training Advice

Chemical hazard awareness training, incorporating labelling, Safety Data Sheets (SDS), Personal Protective Equipment (PPE) and hygiene.

Use of personal protective equipment, covering appropriate selection, compatibility, breakthrough thresholds, care, maintenance, fit and standards.

First aid for chemical exposure, including the use of eye wash and safety showers.

Creation Date	24-Nov-2010
Revision Date	24-Jun-2021
Revision Summary	Not applicable.

This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

COMMISSION REGULATION (EU) 2020/878 amending Annex II to Regulation (EC) No 1907/2006

Disclaimer

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

End of Safety Data Sheet