



*This SDS for user in JP - Not correspond to the regulation of other countries.

Version 1.3 Revision Date: 2025/09/01

SAFETY DATA SHEET

according to JIS Z 7253:2019

1. PRODUCT AND COMPANY IDENTIFICATION

Product name	: Sodium Dodecyl Sulfate [for Electrophoresis]
Product code	: S0588
Company	: TOKYO CHEMICAL INDUSTRY CO., LTD.
Address	: 6-15-9 Toshima, Kita-ku, Tokyo 114-0003, Japan
Responsible Department	: Global Business Department
Telephone	: +81-3-5640-8878
Telefax	: +81-3-5640-8902
E-mail address	: globalbusiness@tcichemicals.com
Recommended use	: For laboratory research purposes.
Restrictions on use	: Not for drug or household use.

2. HAZARDS IDENTIFICATION

GHS classification of chemical product

Acute toxicity (Oral)	: Category 4
Skin corrosion/irritation	: Category 2
Serious eye damage/eye irritation	: Category 1
Specific target organ toxicity - single exposure	: Category 1 (Central nervous system)
Specific target organ toxicity - repeated exposure	: Category 2 (Liver)
Short-term (acute) aquatic hazard	: Category 2

GHS label elements

Hazard pictograms



Signal Word

: Danger

Hazard Statements

: Harmful if swallowed.
Causes skin irritation.
Causes serious eye damage.
Causes damage to organs (Central nervous system).
May cause damage to organs (Liver) through prolonged or repeated exposure.
Toxic to aquatic life.

Precautionary Statements

: **Prevention:**

Do not breathe dust.
Wash skin thoroughly after handling.
Do not eat, drink or smoke when using this product.
Avoid release to the environment.
Wear protective gloves/ eye protection/ face protection.

Response:

IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell.
Rinse mouth.

IF ON SKIN: Wash with plenty of water.

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/ doctor.

IF exposed or concerned: Call a POISON CENTER/ doctor.

If skin irritation occurs: Get medical advice/ attention.

Take off contaminated clothing and wash it before reuse.

Storage:

Store locked up.

Disposal:

Dispose of contents/ container to an approved waste disposal plant.

Other hazards which do not result in classification

None known.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Substance

Components

Chemical name	CAS RN	Concentration (% w/w)	ENCS/ISHL number
Sodium Dodecyl Sulfate	151-21-3	>= 97 - <= 100	2-1679

4. FIRST AID MEASURES

- If inhaled : Remove person to fresh air and keep comfortable for breathing.
Call a POISON CENTER or doctor/ physician.
- In case of skin contact : Take off all contaminated clothing immediately.
Wash off with soap and plenty of water.
Call a POISON CENTER or doctor/ physician.
- In case of eye contact : Rinse with plenty of water.
If easy to do, remove contact lens, if worn.
Immediately call a POISON CENTER or doctor/ physician.
- If swallowed : Call a POISON CENTER or doctor/ physician.
Rinse mouth.
- Most important symptoms and effects, both acute and delayed : Harmful if swallowed.
Causes skin irritation.
Causes serious eye damage.
Causes damage to organs.
May cause damage to organs through prolonged or repeated exposure.

5. FIRE-FIGHTING MEASURES

- Suitable extinguishing media : Dry powder, Foam, Water spray, Carbon dioxide (CO₂)
- Specific hazards during fire fighting : Take care as it may decompose upon combustion or in high temperatures to generate poisonous fume.
- Specific extinguishing methods : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Immediately evacuate personnel to safe areas.
Remove undamaged containers from fire area if it is safe to do so.
- Special protective equipment for fire-fighters : Use personal protective equipment.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	: Wear suitable protective equipment. Keep people away from and upwind of spill/leak. Entry to non-involved personnel should be controlled around the leakage area by roping off, etc.
Environmental precautions	: Prevent product from entering drains.
Methods and materials for containment and cleaning up	: Pick up and arrange disposal without creating dust.

7. HANDLING AND STORAGE

Handling

Technical measures	: Prevent dispersion of dust.
Local/Total ventilation	: Ensure adequate ventilation. Handle product only in closed system or provide appropriate exhaust ventilation at machinery. Use a local exhaust ventilation.
Advice on safe handling	: Avoid contact with skin, eyes and clothing. Wear personal protective equipment. Wash hands and face thoroughly after handling.
Avoidance of contact	: Oxidizing agents

Storage

Conditions for safe storage	: Keep container tightly closed. Store in a cool and shaded area. Protect from moisture. Keep under inert gas. Store locked up.
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8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Threshold limit value and permissible exposure limits for each component in the work environment

Contains no substances with occupational exposure limit values.

Engineering measures	: Install a closed system or local exhaust. Also install safety shower and eye bath.
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Personal protective equipment

Respiratory protection	: Dustproof gas mask Self-contained breathing apparatus
Hand protection	: Impervious gloves
Eye protection	: Safety glasses Safety goggles Face-shield
Skin and body protection	: Impervious protective clothing

*Use personal protective equipment(PPE) approved under appropriate government standards and follow local and national regulations.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	: solid
Color	: white - yellow

Odor	:	No data available
Odor Threshold	:	No data available
Melting point/freezing point	:	206 °C
Boiling point/boiling range	:	No data available
Flammability	:	No data available
Lower explosion limit and upper explosion limit / flammability limit		
Upper explosion limit / Upper flammability limit	:	No data available
Lower explosion limit / Lower flammability limit	:	No data available
Flash point	:	No data available
Decomposition temperature	:	No data available
pH	:	9.1 Concentration: 10 g/l
Autoignition temperature	:	311 °C
Viscosity		
Viscosity, dynamic	:	No data available
Viscosity, kinematic	:	No data available
Solubility(ies)		
Water solubility	:	150 g/l very soluble (20 °C)
Solubility in other solvents	:	No data available
Partition coefficient: n-octanol/water (log value)	:	1.6
Vapor pressure	:	0.18 Pa (20 °C)
Relative density	:	No data available
Relative vapor density	:	No data available
Molecular weight	:	288.38 g/mol

10. STABILITY AND REACTIVITY

Reactivity	:	No data available
Chemical stability	:	Stable under normal conditions.
Possibility of hazardous reactions	:	None under normal processing.
Conditions to avoid	:	Exposure to moisture.
Incompatible materials	:	Oxidizing agents
Hazardous decomposition products	:	Carbon monoxide, Carbon dioxide (CO ₂), Sulfur oxides

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Harmful if swallowed.

Product:

Acute oral toxicity : Assessment: The component/mixture is moderately toxic after single ingestion.

Components:

Sodium Dodecyl Sulfate:

Acute oral toxicity : LD50 (Rat): 1,200 mg/kg
Assessment: The component/mixture is moderately toxic after single ingestion.

Acute inhalation toxicity : Assessment: The substance or mixture has no acute inhalation toxicity

Acute dermal toxicity : Assessment: The substance or mixture has no acute dermal toxicity

Skin corrosion/irritation

Causes skin irritation.

Product:

Result : Skin irritation

Components:

Sodium Dodecyl Sulfate:

Result : Skin irritation

Serious eye damage/eye irritation

Causes serious eye damage.

Product:

Result : Irreversible effects on the eye

Components:

Sodium Dodecyl Sulfate:

Result : Irreversible effects on the eye

Respiratory or skin sensitization

Skin sensitization

Not classified due to lack of data.

Respiratory sensitization

Not classified due to lack of data.

Germ cell mutagenicity

Not classified due to lack of data.

Carcinogenicity

Not classified due to lack of data.

Reproductive toxicity

Not classified due to lack of data.

STOT-single exposure

Causes damage to organs (Central nervous system).

Product:

Target Organs : Central nervous system
Assessment : Causes damage to organs.

Components:**Sodium Dodecyl Sulfate:**

Target Organs : Central nervous system
Assessment : Causes damage to organs.

STOT-repeated exposure

May cause damage to organs (Liver) through prolonged or repeated exposure.

Product:

Target Organs : Liver
Assessment : May cause damage to organs through prolonged or repeated exposure.

Components:**Sodium Dodecyl Sulfate:**

Target Organs : Liver
Assessment : May cause damage to organs through prolonged or repeated exposure.

Repeated dose toxicity : No information available.

Aspiration toxicity

Not classified due to lack of data.

RTECS No. : WT1050000 (Sodium Dodecyl Sulfate)

12. ECOLOGICAL INFORMATION**Ecotoxicity****Product:****Ecotoxicology Assessment**

Acute aquatic toxicity : Toxic to aquatic life.

Chronic aquatic toxicity : This product has no known ecotoxicological effects.

Components:**Sodium Dodecyl Sulfate:**

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): 29 mg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 1.8 mg/l
Exposure time: 48 h

Toxicity to algae/aquatic plants : EC50 (Desmodesmus subspicatus (green algae)): 53 mg/l
Exposure time: 72 h

NOEC (Desmodesmus subspicatus (green algae)): 30 mg/l
Exposure time: 72 h

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Daphnia magna (Water flea)): 2 mg/l
Exposure time: 40 d

Ecotoxicology Assessment

Acute aquatic toxicity : Toxic to aquatic life.

Chronic aquatic toxicity : This product has no known ecotoxicological effects.

Persistence and degradability

No data available

Bioaccumulative potential**Components:****Sodium Dodecyl Sulfate:**

Bioaccumulation : Bioconcentration factor (BCF): 71

Partition coefficient: n-octanol/water (log value) : 1.6

Mobility in soil**Components:****Sodium Dodecyl Sulfate:**

Distribution among environmental compartments : Koc: 3200

Hazardous to the ozone layer

Not applicable

Other adverse effects

No data available

13. DISPOSAL CONSIDERATIONS**Disposal methods**

Waste from residues : Disposal in accordance with local and national regulations.
Entrust disposal to a licensed waste disposal company.

Contaminated packaging : Disposal in accordance with local and national regulations.
Before disposal of used container, remove contents completely.

14. TRANSPORT INFORMATION**International Regulations****IATA-DGR**

UN/ID No. : Not applicable

Proper shipping name : Not applicable

Class : Not applicable

Subsidiary risk : Not applicable

Packing group : Not applicable

IMDG-Code

UN number : Not applicable

Proper shipping name : Not applicable

Class : Not applicable

Subsidiary risk : Not applicable

Packing group : Not applicable

EmS Code : Not applicable

15. REGULATORY INFORMATION**Related Regulations****Fire Service Law**

Not applicable

Chemical Substance Control Law

Priority Assessment Chemical Substance

Chemical name	Number
Sodium alkyl(C=8-18) sulfate	214

Industrial Safety and Health Law**Harmful Substances Prohibited from Manufacture**

Not applicable

Harmful Substances Required Permission for Manufacture

Not applicable

Substances Prevented From Impairment of Health

Not applicable

Circular concerning Information on Chemicals having Mutagenicity - Annex 2: Information on Existing Chemicals having Mutagenicity

Not applicable

Circular concerning Information on Chemicals having Mutagenicity - Annex 1: Information on Notified Substances having Mutagenicity

Not applicable

Substances Subject to be Notified Names

Article 57-2 (Enforcement Order Table 9)

Chemical name	Concentration (%)	Remarks
Dodecyl sodium sulfate	>=97 - <=100	From April 1st, 2025

Substances Subject to be Indicated Names

Article 57 (Enforcement Order Article 18)

Chemical name	Remarks
Dodecyl sodium sulfate	From April 1st, 2025

Skin and Eye Damage Substances for PPE Requirements (ISHL MO Art. 594-2)

Chemical name
Sodium dodecyl sulfate

Carcinogenic Substances (Article 577-2 of the Occupational Health and Safety Regulations)

Not applicable

Ordinance on Prevention of Hazards Due to Specified Chemical Substances

Not applicable

Ordinance on Prevention of Lead Poisoning

Not applicable

Ordinance on Prevention of Tetraalkyl Lead Poisoning

Not applicable

Ordinance on Prevention of Organic Solvent Poisoning

Not applicable

Poisonous and Deleterious Substances Control Law

Not applicable

Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof**Class I Designated Chemical Substances**

Chemical name	Administration number	Concentration (%)
Sodium dodecyl sulfate	275	97

Narcotics and Psychotropics Control Act

Not applicable

Law on the Prohibition of Chemical Weapons and the Regulation of Specific ChemicalsNot applicable

16. OTHER INFORMATION

In this SDS, if the concentration of substances subject to notification under the Industrial Safety and Health Law is indicated as a range, it includes cases where it is a trade secret.

Date format : yyyy/mm/dd

This SDS was prepared sincerely based on the information obtained, however, any warranty shall not be given regarding the data contained and the assessment of hazards and toxicity. Prior to use, please investigate not only the hazards and toxicity information but also the laws and regulations of the organization, area and country where the products are to be used, which shall be given the first priority. The products are supposed to be used promptly after purchase in consideration of safety. Some new information or amendments may be added afterwards. If the products are to be used far behind the expected time of use or you have any questions, please feel free to contact us. The stated cautions are for normal handling only. In case of special handling operations, sufficient care should be taken, in addition to the safety measures suitable for the given situation. All chemical products should be treated with the recognition of "having unknown hazards and toxicity", which differ greatly depending on the conditions and handling when in use and/or the conditions and duration of storage. The products must be handled only by those who are familiar with specialized knowledge and have experience or under the guidance of those specialists throughout use from opening to storage and disposal. Safe usage conditions shall be set up on each user's own responsibility.