Printing date 11/25/2020

*

Reviewed on 11/25/2020

1 Identification	
· Product identifier	CEDI 74
· Trade name: N-Dodecyl-N,N-Dimethylamine-N-Oxide	SERVA
• Article number: 60105	serving scientists
· CAS Number:	
1643-20-5	
· EC number:	
216-700-6 • Application of the substance / the mixture Laboratory chemicals	NO.
 Details of the supplier of the safety data sheet Manufacturer/Supplier: 	$C\lambda$
SERVA Electrophoresis GmbH	0
Carl-Benz-Str. 7	
D-69115 Heidelberg	0
Tel.: +49 6221 13840-0 FAX: +49 6221 13840-10	
msds.info@serva.de	
• Information department: Product Safety department Tel.: +49 6221 13840)-35
· Emergency telephone number:	
Medical Emergency Information in case of poisoning:	
Poison Information Center Mainz - Phone: +49 (0) 6131 19240 (advisory service in German or English language)	
(auvisory service in German or English language)	
2 Hazard(s) identification	
• Classification of the substance or mixture GHS07	
GHS07	
<i>GHS07</i> <i>Skin Irrit.</i> 2 H315 Causes skin irritation.	
GHS07	
<i>GHS07</i> <i>Skin Irrit.</i> 2 <i>H315 Causes skin irritation.</i> <i>Eye Irrit.</i> 2A <i>H319 Causes serious eye irritation.</i> • <i>Label elements</i>	
<i>GHS07</i> <i>Skin Irrit.</i> 2 <i>H315 Causes skin irritation.</i> <i>Eye Irrit.</i> 2A <i>H319 Causes serious eye irritation.</i> <i>Label elements</i> <i>GHS label elements</i>	zed System (GHS)
<i>GHS07</i> <i>Skin Irrit.</i> 2 H315 Causes skin irritation. <i>Eye Irrit.</i> 2A H319 Causes serious eye irritation. <i>Label elements</i> <i>GHS label elements</i> <i>The substance is classified and labeled according to the Globally Harmoniz</i>	zed System (GHS).
Skin Irrit. 2 H315 Causes skin irritation. Eye Irrit. 2A H319 Causes serious eye irritation. • Label elements • GHS label elements • The substance is classified and labeled according to the Globally Harmoniz • • Hazard pictograms GHS07 • • • Signal word Warning • •	zed System (GHS).
Skin Irrit. 2 H315 Causes skin irritation. Eye Irrit. 2A H319 Causes serious eye irritation. • Label elements • GHS label elements • The substance is classified and labeled according to the Globally Harmoniz • • Hazard pictograms GHS07 • • • Signal word Warning • Hazard statements	zed System (GHS).
Skin Irrit. 2 H315 Causes skin irritation. Eye Irrit. 2A H319 Causes serious eye irritation. • Label elements GHS label elements The substance is classified and labeled according to the Globally Harmoniz • Hazard pictograms GHS07 • Signal word Warning • Hazard statements Causes skin irritation.	zed System (GHS).
Skin Irrit. 2 H315 Causes skin irritation. Eye Irrit. 2A H319 Causes serious eye irritation. • Label elements • GHS label elements The substance is classified and labeled according to the Globally Harmoniz • Hazard pictograms GHS07 • Signal word Warning • Hazard statements Causes skin irritation. Causes skin irritation. Causes serious eye irritation. • Precautionary statements	zed System (GHS).
Skin Irrit. 2 H315 Causes skin irritation. Eye Irrit. 2A H319 Causes serious eye irritation. • Label elements • GHS label elements The substance is classified and labeled according to the Globally Harmoni: • Hazard pictograms GHS07 • Signal word Warning • Hazard statements Causes skin irritation. Causes serious eye irritation. • Precautionary statements Wash thoroughly after handling.	zed System (GHS).
Skin Irrit. 2 H315 Causes skin irritation. Eye Irrit. 2A H319 Causes serious eye irritation. • Label elements • GHS label elements The substance is classified and labeled according to the Globally Harmonia: • Hazard pictograms GHS07 • Signal word Warning • Hazard statements Causes skin irritation. Causes serious eye irritation. • Precautionary statements Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection.	zed System (GHS).
Skin Irrit. 2 H315 Causes skin irritation. Eye Irrit. 2A H319 Causes serious eye irritation. • Label elements • GHS label elements The substance is classified and labeled according to the Globally Harmoniz • Hazard pictograms GHS07 • Signal word Warning • Hazard statements Causes skin irritation. Causes serious eye irritation. Causes serious eye irritation. • Precautionary statements Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection. If on skin: Wash with plenty of soap and water.	
Skin Irrit. 2 H315 Causes skin irritation. Eye Irrit. 2A H319 Causes serious eye irritation. • Label elements • GHS label elements The substance is classified and labeled according to the Globally Harmoniz • Hazard pictograms GHS07 • Signal word Warning • Hazard statements Causes skin irritation. Causes serious eye irritation. Causes serious eye irritation. Precautionary statements Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection. If on skin: Wash with plenty of soap and water. If in eyes: Rinse cautiously with water for several minutes. Remove contact Continue rinsing.	
Skin Irrit. 2 H315 Causes skin irritation. Eye Irrit. 2A H319 Causes serious eye irritation. • Label elements • Sdf label elements • Hazard pictograms GHS07 • Signal word Warning • • Hazard statements • Causes skin irritation. • Causes serious eye irritation. • • Precautionary statements • Wash thoroughly after handling. • Wear protective gloves/protective clothing/eye protection/face protection. If on skin: Wash with plenty of soap and water. If in eyes: Rinse cautiously with water for several minutes. Remove contact Continue rinsing. If skin irritation occurs: Get medical advice/attention.	
 Skin Irrit. 2 H315 Causes skin irritation. Eye Irrit. 2A H319 Causes serious eye irritation. Label elements GHS label elements The substance is classified and labeled according to the Globally Harmoniz Hazard pictograms GHS07 Signal word Warning Hazard statements Causes skin irritation. Causes serious eye irritation. Precautionary statements Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection. If on skin: Wash with plenty of soap and water. If in eyes: Rinse cautiously with water for several minutes. Remove contact Continue rinsing. If skin irritation occurs: Get medical advice/attention. 	
Skin Irrit. 2 H315 Causes skin irritation. Eye Irrit. 2A H319 Causes serious eye irritation. • Label elements • GHS label elements The substance is classified and labeled according to the Globally Harmoniz • Hazard pictograms GHS07 • Signal word Warning • Hazard statements Causes skin irritation. Causes serious eye irritation. • Precautionary statements Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection. If on skin: Wash with plenty of soap and water. If in eyes: Rinse cautiously with water for several minutes. Remove contact Continue rinsing. If skin irritation occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. • Classification system:	
Skin Irrit. 2 H315 Causes skin irritation. Eye Irrit. 2A H319 Causes serious eye irritation. Eye Irrit. 2A H319 Causes serious eye irritation. Label elements GHS label elements The substance is classified and labeled according to the Globally Harmoniz Hazard pictograms GHS07 Signal word Warning Hazard statements Causes skin irritation. Causes serious eye irritation. Causes serious eye irritation. Precautionary statements Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection. If on skin: Wash with plenty of soap and water. If in eyes: Rinse cautiously with water for several minutes. Remove contact Continue rinsing. If skin irritation occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. Classification system: NFPA ratings (scale 0 - 4)	
Skin Irrit. 2 H315 Causes skin irritation. Eye Irrit. 2A H319 Causes serious eye irritation. • Label elements • GHS label elements The substance is classified and labeled according to the Globally Harmonia: • Hazard pictograms GHS07 • Signal word Warning • Hazard statements Causes skin irritation. Causes serious eye irritation. • Causes serious eye irritation. • Precautionary statements Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection. If in eyes: Rinse cautiously with water for several minutes. Remove contact Continue rinsing. If skin irritation occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. If eye irritation system: NFPA ratings (scale 0 - 4) Health = 2	
Skin Irrit. 2 H315 Causes skin irritation. Eye Irrit. 2A H319 Causes serious eye irritation. • Label elements • • GHS label elements • The substance is classified and labeled according to the Globally Harmoniz • Hazard pictograms GHS07 • Signal word Warning • Hazard statements Causes skin irritation. Causes serious eye irritation. • Grecautionary statements Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection. If on skin: Wash with plenty of soap and water. If in eyes: Rinse cautiously with water for several minutes. Remove contact Continue rinsing. If skin irritation occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. • Classification system: • NFPA ratings (scale 0 - 4)	
Skin Irrit. 2 H315 Causes skin irritation. Eye Irrit. 2A H319 Causes serious eye irritation. Eye Irrit. 2A H319 Causes serious eye irritation. Label elements GHS label elements The substance is classified and labeled according to the Globally Harmoniz Hazard pictograms GHS07 Signal word Warning Hazard statements Causes skin irritation. Causes serious eye irritation. Causes serious eye irritation. Precautionary statements Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection. If on skin: Wash with plenty of soap and water. If in eyes: Rinse cautiously with water for several minutes. Remove contact Continue rinsing. If skin irritation occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. If eye irritation system: NFPA ratings (scale 0 - 4) Health = 2 Fire = 0	

(Contd. of page 1)

Safety Data Sheet acc. to OSHA HCS

Printing date 11/25/2020

Reviewed on 11/25/2020

Trade name: N-Dodecyl-N,N-Dimethylamine-N-Oxide

· HMIS-ratings (scale 0 - 4)



• Other hazards

· Results of PBT and vPvB assessment

• **PBT:** PBT - assessment not available.

· **vPvB**: vPvB - assessment not available.

3 Composition/information on ingredients

- · Chemical characterization: Substances
- · CAS No. Description
- 1643-20-5 dodecyldimethylamine oxide
- · Identification number(s)
- **EC number:** 216-700-6

4 First-aid measures

· Description of first aid measures

- · After inhalation: Supply fresh air; consult doctor in case of complaints.
- · After skin contact:
- Immediately wash with water and soap and rinse thoroughly. Consult doctor if you feel unwell.
- After eye contact:

Rinse opened eye for several minutes under running water. Remove present contact lenses, if easy to do, and continue rinsing. Consult ophthalmologist In case of complaints.

- After swallowing: Wash out mouth. Seek medical advice if discomfort occurs.
- · Information for doctor:
- Most important symptoms and effects, both acute and delayed No further relevant information available.
- *Indication of any immediate medical attention and special treatment needed No further relevant information available.*

5 Fire-fighting measures

- · Extinguishing media
- · Suitable extinguishing agents:
- CO_{2} extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam. • Special hazards arising from the substance or mixture
- In case of fire formation of toxic vapours and gases is possible. In case of fire, the following can be released:
- Carbon monoxide and carbon dioxide
- Nitrogen oxides (NOx)
- Advice for firefighters
- · Protective equipment: Wear self-contained respiratory protective device.

6 Accidental release measures

Personal precautions, protective equipment and emergency procedures Wear protective clothing. Ensure adequate ventilation Avoid formation of dust. Avoid contact with the eyes and skin.
Environmental precautions: Do not allow to enter sewers/ surface or ground water.

(Contd. on page 3)

US

(Contd. of page 2)

Safety Data Sheet acc. to OSHA HCS

Printing date 11/25/2020

Reviewed on 11/25/2020

Trade name: N-Dodecyl-N,N-Dimethylamine-N-Oxide

- *Methods and material for containment and cleaning up:* Dispose contaminated material as waste according to item 13. Pick up mechanically.
- Reference to other sections
 See Section 7 for information on safe handling.
 See Section 8 for information on personal protection equipment.
 See Section 13 for disposal information.
- Protective Action Criteria for Chemicals
- **PAC-1:** Substance is not listed.
- PAC-2: Substance is not listed.
- · PAC-3: Substance is not listed.

7 Handling and storage

- · Handling:
- Precautions for safe handling No special precautions are necessary if used correctly.
- · Information about protection against explosions and fires: No special measures required.
- · Conditions for safe storage, including any incompatibilities
- · Storage:
- Requirements to be met by storerooms and receptacles: Store at -15 to -25 °C
- Information about storage in one common storage facility: Not required.
- Further information about storage conditions: Keep receptacle tightly sealed and store in dry conditions.
- Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

· Additional information about design of technical systems: No further data; see item 7.

- · Control parameters
- · Components with limit values that require monitoring at the workplace: Not required.
- Additional information: The lists that were valid during the creation were used as basis.
- · Exposure controls
- · Personal protective equipment:
- General protective and hygienic measures: Keep away from foodstuffs, beverages and feed. Store protective clothing separately. Immediately remove all soiled and contaminated clothing. Avoid contact with the eyes and skin.
- Wash hands before breaks and at the end of work.
- Breathing equipment: Suitable respiratory protective device recommended.
- Protection of hands:
- Protective gloves

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

· Penetration time of glove material

The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

For the permanent contact of a maximum of 15 minutes gloves made of the following materials are suitable:

Nitrile rubber, NBR Natural rubber, NR

(Contd. on page 4)

US

Printing date 11/25/2020

Reviewed on 11/25/2020

Trade name: N-Dodecyl-N,N-Dimethylamine-N-Oxide

- · Eye protection: Safety glasses
- **Body protection:** Protective work clothing

Physical and chemical properties		
Information on basic physical and	chemical properties	
General Information		
Appearance:		
Form: Color:	Solid material	
Color: Odor:	White not determined	
Odor: Odor threshold:	Not determined.	
	Noi delermined.	
Change in condition		
Melting point/Melting range:	Undetermined.	
Boiling point/Boiling range:	Undetermined.	
Flash point:	Not applicable.	
Flammability (solid, gaseous):	no information available	
Decomposition temperature:	Not determined.	
Auto igniting:	Not determined.	
Danger of explosion:	Not determined.	
Explosion limits:		
Lower:	Not determined.	
Upper:	Not determined.	
Vapor pressure:	Not applicable.	
Density:	Not determined.	
Relative density	Not determined.	
Vapor density	Not applicable.	
Evaporation rate	Not applicable.	
Solubility in / Miscibility with		
Water:	Soluble.	
Partition coefficient (n-octanol/wat	er): Not determined.	
Viscosity:		
Dynamic:	Not applicable.	
Kinematic:	Not applicable.	
Other information	No further relevant information available.	

10 Stability and reactivity

- · Reactivity No further relevant information available.
- · Chemical stability
- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- · Possibility of hazardous reactions No further relevant informations available.
- · Conditions to avoid No further relevant information available.
- $\cdot \textit{Incompatible materials: } No further relevant information available.$
- Hazardous decomposition products: In case of fire: See Section 5

(Contd. on page 5)

US

(Contd. of page 3)

Printing date 11/25/2020

Reviewed on 11/25/2020

Trade name: N-Dodecyl-N,N-Dimethylamine-N-Oxide

(Contd. of page 4)

11 Toxicological information

- · Information on toxicological effects
- Acute toxicity:
- · LD/LC50 values that are relevant for classification:
- Oral LD50 mg/kg (rat)
- · Primary irritant effect:
- on the skin: Irritant to skin and mucous membranes.
- on the eye: Irritating effect.
- · Sensitization: No sensitizing effects known.
- · Additional toxicological information:
- · Carcinogenic categories
- · IARC (International Agency for Research on Cancer) Substance is not listed.
- · NTP (National Toxicology Program) Substance is not listed.
- · OSHA-Ca (Occupational Safety & Health Administration) Substance is not listed.

12 Ecological information

- · Toxicity
- Aquatic toxicity: No further relevant information available.
- · Persistence and degradability No further relevant information available.
- · Behavior in environmental systems:
- · Bioaccumulative potential No further relevant information available.
- *Mobility in soil* No further relevant information available.
- Additional ecological information:
- · General notes: Water hazard class 2 (Self-assessment): hazardous for water
- Results of PBT and vPvB assessment
- *PBT:* Not applicable.
- · vPvB: Not applicable.
- Other adverse effects No further relevant information available.

13 Disposal considerations

- · Waste treatment methods
- **Recommendation:** Disposal must be made according to official regulations. Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- · Uncleaned packagings:
- · Recommendation:

Disposal of uncleaned packagings must be made according to official regulations in the same manner as the product.

• Recommended cleansing agent: Water, if necessary with cleansing agents.

· UN-Number		
· DOT, ADR, IMDG, IATA	Void	
· UN proper shipping name		
· DOT, ADR, IMDG, IATA	Void	

Printing date 11/25/2020

Reviewed on 11/25/2020

Trade name: N-Dodecyl-N,N-Dimethylamine-N-Oxide

		(Contd. of page 5)
· Transport hazard class(es)		
· DOT, ADR, ADN, IMDG, IATA · Class	Void	
· Packing group · DOT, ADR, IMDG, IATA	Void	
· Environmental hazards:	Not applicable.	
· Special precautions for user	Not applicable.	
• Transport in bulk according to Annex . MARPOL73/78 and the IBC Code	II of Not applicable.	
· UN "Model Regulation":	Void	

15 Regulatory information

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

- Section 355 (extremely hazardous substances): Substance is not listed.
- · Section 313 (Specific toxic chemical listings): Substance is not listed.
- TSCA (Toxic Substances Control Act): ACTIVE
- · Hazardous Air Pollutants Substance is not listed.

· Proposition 65 Substance is not listed.

- · Chemicals known to cause cancer: Substance is not listed.
- · Chemicals known to cause reproductive toxicity for females: Substance is not listed.
- · Chemicals known to cause reproductive toxicity for males: Substance is not listed.
- · Chemicals known to cause developmental toxicity: Substance is not listed.
- · Cancerogenity categories

· EPA (Environmental Protection Agency) Substance is not listed.

- TLV (Threshold Limit Value established by ACGIH) Substance is not listed.
- · NIOSH-Ca (National Institute for Occupational Safety and Health) Substance is not listed.
- · GHS label elements

The substance is classified and labeled according to the Globally Harmonized System (GHS).

- · Hazard pictograms GHS07
- · Signal word Warning
- Hazard statements Causes skin irritation.

Causes serious eye irritation.

- · Precautionary statements
- Wash thoroughly after handling.

Wear protective gloves/protective clothing/eye protection/face protection.

If on skin: Wash with plenty of soap and water.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

If skin irritation occurs: Get medical advice/attention.

If eye irritation persists: Get medical advice/attention.

· Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- · Department issuing SDS: Product safety department
- · Contact: +49 6221 13840-35

· Date of preparation / last revision 11/25/2020 / -

(Contd. on page 7)

Printing date 11/25/2020

Reviewed on 11/25/2020

Trade name: N-Dodecyl-N,N-Dimethylamine-N-Oxide

	(Contd. of page 6)
Abbreviations and acronyms:	
PBT: persistent, bioaccumulative, toxic substance (REACH)	
<i>vPvB: very persistent, very bioaccumulative substance (REACH)</i>	
REACH: Regulation concerning the Registration, Evaluation, Authorisation and Restriction of Che.	emicals
<i>CLP: Regulation on classification, labelling and packaging of substances and mixtures</i>	incluib
bw: body weight	
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Ag	greement concerning the International
Carriage of Dangerous Goods by Road)	
IMDG: International Maritime Code for Dangerous Goods	
DOT: US Department of Transportation	
IATA: International Air Transport Association	
ACGIH: American Conference of Governmental Industrial Hygienists	
EINECS: European Inventory of Existing Commercial Chemical Substances	
CAS: Chemical Abstracts Service (division of the American Chemical Society)	
NFPA: National Fire Protection Association (USA)	
HMIS: Hazardous Materials Identification System (USA)	
LC50: Lethal concentration, 50 percent	
LD50: Lethal dose, 50 percent	
PBT: Persistent, Bioaccumulative and Toxic	
vPvB: very Persistent and very Bioaccumulative	
NIOSH: National Institute for Occupational Safety	
OSHA: Occupational Safety & Health	
TLV: Threshold Limit Value	
PEL: Permissible Exposure Limit	
REL: Recommended Exposure Limit	
Skin Irrit. 2: Skin corrosion/irritation – Category 2	
Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A	
	[