

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1 Product identifier**

- Trade name MACKOL CAS 100N
- CAS-No. 68955-19-1

1.2 Relevant identified uses of the substance or mixture and uses advised against**Uses of the Substance/Mixture**

- Surfactants for various applications

Uses advised against

- For industrial use only.

1.3 Details of the supplier of the safety data sheet**Company**

Rhodia Specialty Chemicals India Limited.
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E-mail address

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1.4 Emergency telephone number

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China (Domestic Only): +86 532 8388 9090 (Qingdao)
MULTI LINGUAL EMERGENCY NUMBER (24/7)
Europe/Latin America/Africa : +44 1235 239 670 (UK)
Middle East/Africa speaking Arabic : +44 1235 239 671 (UK)
Asia Pacific : +65 3158 1074 (Singapore)
China : +86 512 8090 3042
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SECTION 2: Hazards identification**2.1 Classification of the substance or mixture****GHS Classification and Labeling: Follow GB 13690, GB 15258 and GB 30000.2 to GB 30000.29 (GHS 2011)**

Skin corrosion/irritation, Category 2
Serious eye damage, Category 1
Acute aquatic toxicity, Category 3
Chronic aquatic toxicity, Category 3

H315: Causes skin irritation.
H318: Causes serious eye damage.
H402: Harmful to aquatic life.
H412: Harmful to aquatic life with long lasting effects.

2.2 Label elements**GHS Classification and Labeling: Follow GB 13690, GB 15258 and GB 30000.2 to GB 30000.29 (GHS 2011)****Hazardous products which must be listed on the label**

- CAS-No. 68955-19-1 Sulfuric acid, mono-C12-18-alkyl esters, sodium salts

Pictogram**Signal word**

- Danger

Hazard statements

- H315 Causes skin irritation.
- H318 Causes serious eye damage.
- H412 Harmful to aquatic life with long lasting effects.

Precautionary statementsGeneral

- None

Prevention

- P264 Wash skin thoroughly after handling.
- P273 Avoid release to the environment.
- P280 Wear protective gloves/ eye protection/ face protection.

Response

- P302 + P352 IF ON SKIN: Wash with plenty of water.
- P305 + P351 + P338 + P310 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 or doctor/ physician.
- P332 + P313 If skin irritation occurs: Get medical advice/ attention.
- P362 + P364 Take off contaminated clothing and wash it before reuse.

Storage

- None

Disposal

- P501 Dispose of contents/ container to an approved waste disposal plant.

2.3 Other hazards which do not result in classification

None known.

SECTION 3: Composition/information on ingredients**3.1 Substance**

- Synonyms Sodium Lauryl Sulphate
- Chemical nature Surfactant

Information on Components and Impurities

Chemical Name	CAS-No.	Identification number	GHS Classification	Concentration [%]
Sulfuric acid, mono-C12-18-alkyl esters, sodium salts	68955-19-1	Not applicable	Flammable solids, Category 1 ; H228 Skin irritation, Category 2 ; H315 Serious eye damage, Category 1 ; H318 Acute aquatic toxicity, Category 2 ; H401 Chronic aquatic toxicity, Category 3 ; H412 Specific concentration limit: C: 10 - < 20 %, Eye irritation, Category 2; H319 C: >= 20 %, Serious eye damage, Category 1; H318	>= 90 - < 95
Alcohols, C12-18	67762-25-8	Not applicable	Skin irritation, Category 3 ; H316 Acute aquatic toxicity, Category 2 ; H401	>= 1 - < 5

For the full text of the H-Statements mentioned in this Section, see Section 16.

3.2 Mixture

- Not applicable, this product is a substance.

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice

- Show this safety data sheet to the doctor in attendance.
- First aider needs to protect himself.
- Place affected clothing in a sealed bag for subsequent decontamination.

In case of inhalation

- If inhaled
- Keep at rest.
- Move to fresh air.
- If symptoms persist, call a physician.

In case of skin contact

- In case of skin contact
- Take off contaminated clothing and shoes immediately.
- Wash off with soap and water.
- Call a physician if irritation develops or persists.

In case of eye contact

- In case of eye contact, remove contact lens and rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
- If eye irritation persists, consult a specialist.

In case of ingestion

- Do not induce vomiting without medical advice.

- Drink plenty of water.
- If symptoms persist, call a physician.

4.2 Most important symptoms and effects, both acute and delayed

- no data available

4.3 Indication of any immediate medical attention and special treatment needed

- no data available

SECTION 5: Firefighting measures**5.1 Extinguishing media****Suitable extinguishing media**

- Carbon dioxide (CO₂)
- Dry powder
- Water spray

Unsuitable extinguishing media

- High volume water jet
- (frothing possible)

5.2 Special hazards arising from the substance or mixture

- Combustible. However, does not present any particular risk in the event of a fire.
- On combustion, toxic gases are released.
- Risk of dust explosion.
- Avoid generating dust; fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.

5.3 Advice for firefighters**Special protective equipment for firefighters**

- Wear self-contained breathing apparatus for firefighting if necessary.
- Use personal protective equipment.

Further information

- Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

SECTION 6: Accidental release measures**6.1 Personal precautions, protective equipment and emergency procedures**

- Wear suitable protective equipment.
- For further information refer to section 8 "Exposure controls/personal protection".

6.2 Environmental precautions

- Contain the spilled material by bunding.
- Try to prevent the material from entering drains or water courses.

6.3 Methods and materials for containment and cleaning up

- Stop leak if safe to do so.

Prohibition

- Avoid dust formation.
- Use only non-sparking tools.

Recovery

- Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13).

- Clean up promptly by sweeping or vacuum.
- Keep in properly labelled containers.
- Keep in suitable, closed containers for disposal.

Decontamination/cleaning

- Flush with plenty of water.
- Recover the cleaning water for subsequent disposal.

Disposal

- Dispose of in accordance with local regulations.

Additional advice

- The product should not be allowed to enter drains, water courses or the soil.
- Material can create slippery conditions.

6.4 Reference to other sections

- 7. HANDLING AND STORAGE
- 8. EXPOSURE CONTROLS/PERSONAL PROTECTION
- 13. DISPOSAL CONSIDERATIONS

SECTION 7: Handling and storage**7.1 Precautions for safe handling**

- Provide sufficient air exchange and/or exhaust in work rooms.
- Earth the equipment.
- Take measures to prevent the build up of electrostatic charge.
- Handle in accordance with good industrial hygiene and safety practice.
- Avoid dust formation.
- Avoid allowing the dust to build up. Clean regularly.
- Do not breathe vapours/dust.
- Avoid contact with skin and eyes.

Hygiene measures

- Emergency equipment immediately accessible, with instructions for use.
- Ensure that eyewash stations and safety showers are close to the workstation location.
- Regular cleaning of equipment, work area and clothing.
- Use clean, well-maintained personal protection equipment.
- Store personal protection equipment in a clean location away from the work area.
- Contaminated work clothing should not be allowed out of the workplace.
- Before reuse, thoroughly clean personal protection equipment
- Wash hands before breaks and immediately after handling the product.
- Shower or bathe at the end of working.
- When using do not eat, drink or smoke.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures/Storage conditions

- Store at room temperature in the original container.
- Keep in a cool, well-ventilated place.
- Keep tightly closed.
- Keep away from open flames, hot surfaces and sources of ignition.
- Keep away from incompatible materials to be indicated by the manufacturer
- Keep away from: Do not mix with incompatible materials (See list section 10).

Packaging material**Suitable material**

- Paper bags
- Polypropylene bags

Requirements for storage rooms and vessels

Recommended storage temperature: < 30 °C

7.3 Specific end use(s)

- no data available

SECTION 8: Exposure controls/personal protection**8.1 Control parameters**

- We are not aware of any national exposure limit.

8.2 Exposure controls**Control measures****Engineering measures**

- Avoid splashes.
- Apply technical measures to comply with the occupational exposure limits.

Individual protection measures**Respiratory protection**

- Use a respirator with an approved filter if a risk assessment indicates this is necessary.

Hand protection

- Where there is a risk of contact with hands, use appropriate gloves
- The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.
- Gloves must be inspected prior to use.
- Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.
- Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time.

Eye protection

- Safety glasses
- In case of contact through splashing:
- Wear face-shield and protective suit.

Skin and body protection

- Choose body protection according to the amount and concentration of the dangerous substance at the work place.
- Remove and wash contaminated clothing.

Hygiene measures

- Emergency equipment immediately accessible, with instructions for use.

- Ensure that eyewash stations and safety showers are close to the workstation location.
- Regular cleaning of equipment, work area and clothing.
- Use clean, well-maintained personal protection equipment.
- Store personal protection equipment in a clean location away from the work area.
- Contaminated work clothing should not be allowed out of the workplace.
- Before reuse, thoroughly clean personal protection equipment
- Wash hands before breaks and immediately after handling the product.
- Shower or bathe at the end of working.
- When using do not eat, drink or smoke.

Protective measures

- The protective equipment must be selected in accordance with current CEN standards and in cooperation with the supplier of the protective equipment.
- Selection of appropriate personal protective equipment should be based on an evaluation of the performance characteristics of the protective equipment relative to the task(s) to be performed, conditions present, duration of use, and the potential hazards and/or risks that may occur during use.

Environmental exposure controls

- Contain the spilled material by bunding.
- Try to prevent the material from entering drains or water courses.

SECTION 9: Physical and chemical properties**9.1 Information on basic physical and chemical properties****Appearance**

Form: Needles
 Physical state: solid
 Colour: white
 off-white

Odour

fatty odour

Odour Threshold

no data available

pH

9.0 - 12.0 (1 % (m/v))

Melting point/freezing point

no data available

Initial boiling point and boiling range

Boiling point/boiling range: > 150 °C

Flash point

> 100 °C closed cup

Evaporation rate (Butylacetate = 1)

no data available

Flammability (solid, gas)

May form combustible dust concentrations in air

Flammability/Explosive limit

no data available

Auto-ignition temperature

no data available

Vapour pressure

no data available

Vapour density

> 1

DensityBulk density: ca. 500 kg/m³**Relative density**

no data available

SolubilityWater solubility:
soluble**Partition coefficient: n-octanol/water**

no data available

Decomposition temperature

no data available

Viscosity

no data available

Explosive properties

no data available

Oxidizing properties

no data available

9.2 Other information

no data available

SECTION 10: Stability and reactivity**10.1 Reactivity**

- no data available

10.2 Chemical stability

- Stable at room temperature.

10.3 Possibility of hazardous reactions**Polymerisation**

- Hazardous polymerisation does not occur.

10.4 Conditions to avoid

- Avoid excessive heat for prolonged periods of time.
- Avoid dust formation.
- Keep away from heat and sources of ignition.
- Static electricity

10.5 Incompatible materials

- Strong oxidizing agents
- Strong acids

10.6 Hazardous decomposition products

- On combustion or on thermal decomposition (following the evaporation of water) releases:
- Carbon oxides
- Sulphur oxides
- Nitrogen oxides (NOx)

SECTION 11: Toxicological information**11.1 Information on toxicological effects****Acute toxicity****Acute oral toxicity**

Not classified as harmful if swallowed

Acute inhalation toxicity

no data available

Acute dermal toxicity

Not classified as harmful by contact with skin

Acute toxicity (other routes of administration)	no data available
<u>Skin corrosion/irritation</u>	Irritating to skin. Information refers to the main component.
<u>Serious eye damage/eye irritation</u>	Risk of serious damage to eyes. Information refers to the main component.
<u>Respiratory or skin sensitisation</u>	Does not cause skin sensitisation. Information refers to the main component.
<u>Mutagenicity</u>	
Genotoxicity in vitro	By analogy Product is not considered to be genotoxic
Genotoxicity in vivo	By analogy Product is not considered to be genotoxic
<u>Carcinogenicity</u>	
Sulfuric acid, mono-C12-18-alkyl esters, sodium salts	Rat , male and female Oral Exposure time: two-year Method: according to a standardised method By analogy No carcinogenic effects have been observed Unpublished reports
<u>Toxicity for reproduction and development</u>	
Toxicity to reproduction/Fertility	
Sulfuric acid, mono-C12-18-alkyl esters, sodium salts	Toxicity for repeated doses. - 90-day - Rat , male and female Oral Method: according to a standardised method By analogy No effect observed in male or female reproductive system in repeated dose tox studies . Unpublished reports
Developmental Toxicity/Teratogenicity	By analogy No effect observed on development Information refers to the main component.
<u>STOT</u>	
STOT - single exposure	
Sulfuric acid, mono-C12-18-alkyl esters, sodium salts	Exposure routes: Ingestion, Skin contact The substance or mixture is not classified as specific target organ toxicant, single exposure according to GHS criteria. internal evaluation
STOT - repeated exposure	

Sulfuric acid, mono-C12-18-alkyl esters, sodium salts

Exposure routes: Ingestion, Skin contact
The substance or mixture is not classified as specific target organ toxicant, repeated exposure according to GHS criteria.
By analogy, internal evaluation
By analogy
Not considered to cause serious damage to health on repeated exposure
Information refers to the main component.

Aspiration toxicity

no data available

SECTION 12: Ecological information

12.1 Toxicity

Aquatic Compartment

Acute toxicity to fish

Harmful to aquatic organisms.
Unpublished reports
Information given is based on data obtained from similar substances.

Acute toxicity to daphnia and other aquatic invertebrates.

Harmful to aquatic organisms.
Unpublished reports
Information given is based on data obtained from similar substances.

Toxicity to aquatic plants

Harmful to aquatic organisms.
Unpublished reports
Information given is based on data obtained from similar substances.

Toxicity to microorganisms

The product itself has not been tested.

Chronic toxicity to fish

Harmful to aquatic life with long lasting effects.
By analogy
Unpublished reports

Chronic toxicity to daphnia and other aquatic invertebrates.

Harmful to aquatic life with long lasting effects.
Information given is based on data obtained from similar substances.
Unpublished reports

Terrestrial Compartment

Toxicity to terrestrial plants

Sulfuric acid, mono-C12-18-alkyl esters, sodium salts

EC50: > 200 mg/l - 11 Days - Avena sativa (oats)
Published data

12.2 Persistence and degradability

Biodegradation

Biodegradability

Method: According to ISO 14593 method
88 % - 28 Days
Readily biodegradable
Unpublished internal reports

12.3 Bioaccumulative potential**Partition coefficient: n-octanol/water**Sulfuric acid, mono-C12-18-alkyl
esters, sodium salts

Not potentially bioaccumulable

12.4 Mobility in soil**Adsorption potential (Koc)**Sulfuric acid, mono-C12-18-alkyl
esters, sodium salts

The product itself has not been tested.

**Known distribution to environmental
compartments**Ultimate destination of the product : Water
Structure-activity relationship (SAR)**12.5 Results of PBT and vPvB assessment**

This substance is not considered to be persistent, bioaccumulating and toxic (PBT).
This substance is not considered to be very persistent and very bioaccumulating (vPvB).

12.6 Other adverse effects

no data available

Ecotoxicity assessment**Acute aquatic toxicity**

Harmful to aquatic life.

Chronic aquatic toxicity

Harmful to aquatic life with long lasting effects.

SECTION 13: Disposal considerations**13.1 Waste treatment methods****Product Disposal*****Prohibition***

- Should not be released into the environment.
- Dispose of in accordance with local regulations.

Advice on cleaning and disposal of packaging

- Empty the packaging completely prior to disposal.
- Rinse with an appropriate solvent.
- Dispose of contents/container in accordance with local regulation.
- Dispose of in accordance with local regulations.

Measure for waste avoidance or recovery

- Do not dispose of the product at a rubbish tip.

SECTION 14: Transport information**CN DG**

not regulated

ADR

not regulated

RID

not regulated

IMDG

not regulated

IATA

not regulated

Note: The above regulatory prescriptions are those valid on the date of publication of this sheet. Given the possible evolution of transport regulations for hazardous materials, it would be advisable to check their validity with your sales office.

SECTION 15: Regulatory information**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture****Following last version of regulations are applicable for the chemical classification, SDS and label:**

- General Rule for classification and hazard communication of chemicals, GB 13690
- Series standards of Safety rules for classification, precautionary labeling and precautionary statements of chemicals, GB 30000.2~GB 30000.29
- General rules for preparation of precautionary label for chemicals, GB 15258
- Safety data sheet for chemical products—Content and order of sections, GB/T 16483

Notification status

Inventory Information	Status
United States TSCA Inventory	- On TSCA Inventory
Canadian Domestic Substances List (DSL)	- All components of this product are on the Canadian DSL
European Inventory of Existing Commercial Chemical Substances (EINECS)	- Y = All ingredients are on the inventory
Australia Inventory of Chemical Substances (AICS)	- On the inventory, or in compliance with the inventory
Japan. CSCL - Inventory of Existing and New Chemical Substances	- On the inventory, or in compliance with the inventory
Korea. Korean Existing Chemicals Inventory (KECI)	- On the inventory, or in compliance with the inventory
China. Inventory of Existing Chemical Substances in China (IECSC)	- On the inventory, or in compliance with the inventory
New Zealand. Inventory of Chemical Substances	- Y = All ingredients are on the inventory
Philippines Inventory of Chemicals and Chemical Substances (PICCS)	- Y = All ingredients are on the inventory
Taiwan Chemical Substance Inventory	- Y = All ingredients are on the inventory

SECTION 16: Other information**Full text of H-Statements**

- | | |
|--------|--|
| - H228 | Flammable solid. |
| - H315 | Causes skin irritation. |
| - H316 | Causes mild skin irritation. |
| - H318 | Causes serious eye damage. |
| - H401 | Toxic to aquatic life. |
| - H402 | Harmful to aquatic life. |
| - H412 | Harmful to aquatic life with long lasting effects. |

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. Such information is only given as a guidance to help the user handle, use, process, store, transport, dispose and release the product in satisfactory safety conditions and is not to be considered as a warranty or quality specification. It should be used in conjunction with technical sheets but do not replace them. Thus, the information only relates to the designated specific product and may not be applicable if such product is used in combination with other materials or in any other manufacturing process, unless otherwise specifically indicated. It does not release the user from ensuring he is in conformity with all regulations linked to its activity.