Section: 1. PRODUCT AND COMPANY IDENTIFICATION

Product name: NALCO® 1072
Other means of identification: Not applicable.
Recommended use: COLLOIDAL SILICA FINISHING AGENT
Restrictions on use: Refer to available product literature or ask your local Sales Representative for restrictions on use and dose limits.
Company: ECOLAB PTY LTD
2 Drake Avenue Macquarie Park NSW 2113 Australia
A.B.N. 59 000 449 990
TEL: 1300 654 224
FAX: +61 2 8870 8680

Emergency telephone number: 1800 205 506
International: +64 7 958 2372
Issuing date: 24.06.2016

Section: 2. HAZARDS IDENTIFICATION

GHS Classification
Not a hazardous substance or mixture.

Precautionary Statements:
Prevention: Wash hands thoroughly after handling.
Response: Get medical advice/attention if you feel unwell.
Storage: Store in accordance with local regulations.

Other hazards: None known.

Section: 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name: Colloidal Silica
CAS-No.: 7631-86-9
Concentration: (%) 30 - 60

Section: 4. FIRST AID MEASURES

In case of eye contact: Rinse with plenty of water. Get medical attention if symptoms occur.
In case of skin contact: Wash off with soap and plenty of water. Get medical attention if symptoms occur.
If swallowed: Rinse mouth. Get medical attention if symptoms occur.
Contact the Poison's Information Centre (e.g., Australia 13 1126; New Zealand 0800 764 766).
If inhaled: Remove to fresh air. Treat symptomatically. Get medical attention if symptoms occur.
Protection of first-aiders: In event of emergency assess the danger before taking action. Do not put yourself at risk of injury. If in doubt, contact emergency responders. Use personal protective equipment as required.

Notes to physician: Treat symptomatically.

Most important symptoms and effects, both acute and delayed: See Section 11 for more detailed information on health effects and symptoms.

Section: 5. FIREFIGHTING MEASURES

Suitable extinguishing media: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media: None known.

Specific hazards during firefighting: Not flammable or combustible.

Hazardous combustion products: Decomposition products may include the following materials: None known.

Special protective equipment for firefighters: Use personal protective equipment.

Specific extinguishing methods: Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

Section: 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures: Refer to protective measures listed in sections 7 and 8.

Environmental precautions: Do not allow contact with soil, surface or ground water.

Methods and materials for containment and cleaning up: Stop leak if safe to do so. Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). Flush away traces with water. For large spills, dike spilled material or otherwise contain material to ensure runoff does not reach a waterway.

Section: 7. HANDLING AND STORAGE

Advice on safe handling: Do not breathe dust/fume/gas/mist/vapours/spray. Wash hands thoroughly after handling. Use only with adequate ventilation.


Suitable material: Keep in properly labelled containers. Keep in properly labelled containers.

Unsuitable material: not determined

Section: 8. EXPOSURE CONTROLS/PERSONAL PROTECTION
Components with workplace control parameters

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Form of exposure</th>
<th>Permissible concentration</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colloidal Silica</td>
<td>7631-86-9</td>
<td>TWA (Respirable dust)</td>
<td>2 mg/m³</td>
<td>AU OEL</td>
</tr>
<tr>
<td>Colloidal Silica</td>
<td>7631-86-9</td>
<td>TWA (Dust)</td>
<td>20 millions of particles per cubic foot of air (Silica)</td>
<td>OSHA Z3</td>
</tr>
<tr>
<td>Colloidal Silica</td>
<td>7631-86-9</td>
<td>TWA (Dust)</td>
<td>80 mg/m³ / %SiO2 (Silica)</td>
<td>OSHA Z3</td>
</tr>
<tr>
<td>Colloidal Silica</td>
<td>7631-86-9</td>
<td>TWA</td>
<td>6 mg/m³ (Silica)</td>
<td>NIOSH REL</td>
</tr>
</tbody>
</table>

Engineering measures: Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Personal protective equipment

Eye protection: Safety glasses

Hand protection: Wear the following personal protective equipment:
- Neoprene gloves
- Nitrile gloves
- Rubber gloves
- PVC gloves
Breakthrough time not determined as preparation, consult PPE manufacturers.

Skin protection: Wear suitable protective clothing.

Respiratory protection: When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

Hygiene measures: Handle in accordance with good industrial hygiene and safety practice. Remove and wash contaminated clothing before re-use. Wash face, hands and any exposed skin thoroughly after handling.

Section: 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Liquid

Colour: translucent

Odour: odourless

Flash point: , Method: ASTM D 93, Pensky-Martens closed cup, does not flash

pH: 10.0 - 10.4, 100 %, Method: ASTM E 70

Odour Threshold: no data available

Melting point/freezing point: no data available

Initial boiling point and boiling range: 100 °C, Method: ASTM D 86

Evaporation rate: no data available

Flammability (solid, gas): no data available

Upper explosion limit: no data available
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Lower explosion limit : no data available
Vapour pressure : similar to water
Relative vapour density : no data available
Relative density : 1.21 - 1.22, (19 °C), ASTM D-1298
Density : no data available
Water solubility : completely soluble
Solubility in other solvents : no data available
Partition coefficient: n-octanol/water : no data available
Auto-ignition temperature : no data available
Thermal decomposition temperature : no data available
Viscosity, dynamic : 6.8 mPa.s (25 °C), Method: ASTM D 2983
Viscosity, kinematic : no data available
Molecular weight : no data available
VOC : no data available

Section: 10. STABILITY AND REACTIVITY
Chemical stability : Stable under normal conditions.
Possibility of hazardous reactions : No dangerous reaction known under conditions of normal use.
Conditions to avoid : None known.
Incompatible materials : None known
Hazardous decomposition products : None known

Section: 11. TOXICOLOGICAL INFORMATION
Information on likely routes of exposure : Inhalation, Eye contact, Skin contact

Potential Health Effects
Eyes : Health injuries are not known or expected under normal use.
Skin : Health injuries are not known or expected under normal use.
Ingestion : Health injuries are not known or expected under normal use.
Inhalation : May cause respiratory tract irritation. May cause nose, throat, and lung irritation.
Chronic Exposure : Health injuries are not known or expected under normal use.

Experience with human exposure
Eye contact : No symptoms known or expected.
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Skin contact : No symptoms known or expected.
Ingestion : No symptoms known or expected.
Inhalation : Respiratory irritation, Cough

Toxicity

Product

Acute oral toxicity : rat: > 34,000 mg/kg
Test substance: Product
Acute inhalation toxicity : no data available
Acute dermal toxicity : rabbit: > 10,000 mg/kg
Test substance: Product
Skin corrosion/irritation : Result: 0.3
Method: Draize Test
Test substance: Product
Serious eye damage/eye irritation : Result: 4.0
Method: Draize Test
Test substance: Product
Respiratory or skin sensitization : no data available
Carcinogenicity : No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
Reproductive effects : No reproductive toxic effects expected.
Germ cell mutagenicity : Based on available data, the classification criteria are not met.
Teratogenicity : no data available
STOT - single exposure : no data available
STOT - repeated exposure : no data available
Aspiration toxicity : no data available

Human Hazard Characterization
Based on our hazard characterization, the potential human hazard is: Low

Section: 12. ECOLOGICAL INFORMATION

Ecotoxicity

Environmental Effects : This product has no known ecotoxicological effects.

Product

Toxicity to fish : no data available
Toxicity to daphnia and other aquatic invertebrates : no data available
Toxicity to algae : no data available

Components

Toxicity to fish : Colloidal Silica
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LC50 : > 10,000 mg/l
Exposure time: 96 h

Components
Toxicity to daphnia and other aquatic invertebrates : Colloidal Silica
EC50 Daphnia magna (Water flea): > 1,000 mg/l
Exposure time: 24 h

Components
Toxicity to algae : Colloidal Silica
EC50 : > 10,000 mg/l
Exposure time: 72 h

Persistence and degradability
no data available

Mobility
The environmental fate was estimated using a level III fugacity model embedded in the EPI (estimation program interface) Suite TM, provided by the US EPA. The model assumes a steady state condition between the total input and output. The level III model does not require equilibrium between the defined media. The information provided is intended to give the user a general estimate of the environmental fate of this product under the defined conditions of the models.
If released into the environment this material is expected to distribute to the air, water and soil/sediment in the approximate respective percentages;

Air : <5%
Water : 30 - 50%
Soil : 50 - 70%

The portion in water is expected to be soluble or dispersible.

Bioaccumulative potential
no data available

Other information
no data available

ENVIRONMENTAL HAZARD AND EXPOSURE CHARACTERIZATION
Based on our hazard characterization, the potential environmental hazard is: Low

Section: 13. DISPOSAL CONSIDERATIONS
Disposal methods : Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of in compliance with local regulations. Dispose of wastes in an approved waste disposal facility.

Disposal considerations : Dispose of as unused product. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers.

Section: 14. TRANSPORT INFORMATION
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The shipper/consignor/sender is responsible to ensure that the packaging, labeling, and markings are in compliance with the selected mode of transport.

Land transport

Proper shipping name: PRODUCT IS NOT REGULATED DURING TRANSPORTATION

Air transport (IATA)

Proper shipping name: PRODUCT IS NOT REGULATED DURING TRANSPORTATION

Sea transport (IMDG/IMO)

Proper shipping name: PRODUCT IS NOT REGULATED DURING TRANSPORTATION

Section: 15. REGULATORY INFORMATION

Standard for the Uniform Scheduling of Medicines and Poisons: No poison schedule number allocated

FOOD AND DRUG ADMINISTRATION (FDA) Federal Food, Drug and Cosmetic Act:
When use situations necessitate compliance with FDA regulations, this product is acceptable under: 21 CFR 172.480 Silicon dioxide with the following limitation:

For use as a stabilizer in beer to be removed from the beer by filtration prior to final processing. (Further cleared as an adjunct in beer under 27 CFR part 25 by letter ruling.)

ALCOHOL AND TOBACCO TAX AND TRADE BUREAU:
27 CFR 24.246 Materials Authorized for the Treatment of Wine and Juice. Colloidal Silica may be used in the clarification of wine or juice with the following limitation:

Use must not exceed the equivalent of 20 lbs. colloidal silicon dioxide at a 30% concentration per 1000 gallons of wine. (2.4 g/L). Silicon dioxide must be completely removed by filtration. (21 CFR 172.480)

Limitations: no more than required to produce intended technical effect.

INTERNATIONAL CHEMICAL CONTROL LAWS:

TOXIC SUBSTANCES CONTROL ACT (TSCA)
The substances in this preparation are included on or exempted from the TSCA 8(b) Inventory (40 CFR 710)

CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA)
The substance(s) in this preparation are included in or exempted from the Domestic Substance List (DSL).

AUSTRALIA
All substances in this product comply with the National Industrial Chemicals Notification & Assessment Scheme (NICNAS).

CHINA
All substances in this product comply with the Provisions on the Environmental Administration of New Chemical Substances and are listed on or exempt from the Inventory of Existing Chemical Substances China (IECSC).

JAPAN
All substances in this product comply with the Law Regulating the Manufacture and Importation Of Chemical Substances and are listed on the Existing and New Chemical Substances list (ENCS).
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KOREA
All substances in this product comply with the Chemical Control Act (CCA) and are listed on the Existing Chemicals List (ECL)

NEW ZEALAND
All substances in this product comply with the Hazardous Substances and New Organisms (HSNO) Act 1996, and are listed on or are exempt from the New Zealand Inventory of Chemicals.

PHILIPPINES
All substances in this product comply with the Republic Act 6969 (RA 6969) and are listed on the Philippines Inventory of Chemicals & Chemical Substances (PICCS).

Section: 16. OTHER INFORMATION

REFERENCES

Hazardous Substances Data Bank, National Library of Medicine, Bethesda, Maryland (TOMES CPS™ CD-ROM Version), Micromedex, Inc., Englewood, CO.


Registry of Toxic Effects of Chemical Substances, National Institute for Occupational Safety and Health, Cincinnati, OH, (TOMES CPS™ CD-ROM Version), Micromedex, Inc., Englewood, CO.

The Teratogen Information System, University of Washington, Seattle, WA (TOMES CPS™ CD-ROM Version), Micromedex, Inc., Englewood, CO.

Revision Date : 24.06.2016
Date of first issue : 24.06.2016
Version Number : 1.0
Prepared By : Regulatory Affairs

REVISED INFORMATION: Significant changes to regulatory or health information for this revision is indicated by a bar in the left-hand margin of the SDS.

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. For additional copies of an SDS visit www.nalco.com and request access.