# Safety Data Sheet



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|---|---|---|---|
| **Document group:** | 32-0941-8 | **Version number:** | 3.01 |
| **Issue Date:** | 24/04/2026 | **Supersedes date:** | 03/05/2023 |

This Safety Data Sheet has been prepared in accordance with the GHS guidelines & India Hazardous substances (Classification, Labeling & Packaging) Draft Rules 2011.

## SECTION 1: Identification

**1.1. Product identifier**
3M Avagard Surgical Scrub PVP 7.5%

**Product Identification Numbers**
IA-4201-0035-5 IA-4201-0036-3

**1.2. Recommended use and restrictions on use**

**Recommended use**
Surgical Scrub, Sanitizer

**1.3. Supplier's details**

| | |
|---|---|
| **Address:** | 3M India Limited, plot-48-51, Electronic city, Hosur road, Bangalore-560100 |
| **Telephone:** | 080-45543000, contact Product EHS team |
| **E Mail:** | productehs.in@mmm.com |
| **Website:** | http://solutions.3mindia.co.in |

**1.4. Emergency telephone number**
080-45543000 (Contact hours: 8:00 AM to 5:00 PM)

## SECTION 2: Hazard identification

Under MSIHC Rules, information is noted below on flammability, acute toxicity and explosivity relevant to this product. In line with international standards, information on other hazard classes and associated precautionary statements relevant to this product are included as well.

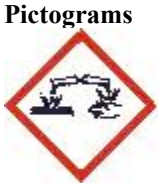
**2.1. Classification of the substance or mixture**
Serious Eye Damage/Irritation: Category 1.
Acute Aquatic Toxicity: Category 3.
Chronic Aquatic Toxicity: Category 3.

**2.2. Label elements**
**Signal Word**
Danger

**Symbols**

Corrosion |

**Pictograms**



**HAZARD STATEMENTS:**

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

**PRECAUTIONARY STATEMENTS**

**Prevention:**

| | |
|---|---|
| P280A | Wear eye/face protection. |

**Response:**

| | |
|---|---|
| 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**

None known.

## SECTION 3: Composition/information on ingredients

This material is a mixture.

| Ingredient | CAS Nbr | % by Wt |
|---|---|---|
| Water | 7732-18-5 | 75 - 85 |
| Poly(vinylpyrrolidinone)iodide | 25655-41-8 | < 10 |
| Propane-1,2-diol | 57-55-6 | < 10 |
| Propan-2-ol | 67-63-0 | < 5 |
| Surfactant | Trade Secret | < 5 |
| Sodium nitrite | 7632-00-0 | < 1 |

## SECTION 4: First aid measures

**4.1. Description of first aid measures**

**Inhalation**

Remove person to fresh air. If you feel unwell, get medical attention.

**Skin contact**

No need for first aid is anticipated.

**Eye contact**

Immediately flush with large amounts of water for at least 15 minutes. Remove contact lenses if easy to do. Continue rinsing. Immediately get medical attention.

**If swallowed**

Rinse mouth. If you feel unwell, get medical attention.

**4.2. Most important symptoms and effects, both acute and delayed**

Serious damage to the eyes (corneal cloudiness, severe pain, tearing, ulcerations, and significantly impaired or loss of vision).

**4.3. Indication of any immediate medical attention and special treatment required**
Not applicable

## SECTION 5: Fire-fighting measures

**5.1. Suitable Extinguishing media**
In case of fire: Use a fire fighting agent suitable for ordinary combustible material such as water or foam to extinguish.

**5.2. Special hazards arising from the substance or mixture**
None inherent in this product.

**Hazardous Decomposition or By-Products**

| Substance | Condition |
|---|---|
| Aldehydes. | During combustion. |
| Carbon monoxide. | During combustion. |
| Carbon dioxide. | During combustion. |
| Irritant vapours or gases. | During combustion. |

**5.3. Special protective actions for fire-fighters**
Wear full protective clothing, including helmet, self-contained, positive pressure or pressure demand breathing apparatus, bunker coat and pants, bands around arms, waist and legs, face mask, and protective covering for exposed areas of the head.

## SECTION 6: Accidental release measures

**6.1. Personal precautions, protective equipment and emergency procedures**
Evacuate area. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapors, in accordance with good industrial hygiene practice. Use PPE - Exposure Assessment

Use personal protective equipment based on the results of an exposure assessment. Refer to Section 8 for PPE recommendations. If anticipated exposure resulting from an accidental release exceeds the protective capabilities of the PPE listed in Section 8, or are unknown, select PPE that offers an appropriate level of protection. Consider the physical and chemical hazards of the material when doing so. Examples of PPE ensembles for emergency response could include wearing bunker gear for a release of flammable material; wearing chemical protective clothing if the spilled material is a corrosive, a sensitizer, a significant dermal irritant, or can be absorbed through the skin; or donning a positive pressure supplied-air respirator for chemicals with inhalation hazards. For information regarding physical and health hazards, refer to sections 2 and 11 of the SDS.

**6.2. Environmental precautions**
Avoid release to the environment. For larger spills, cover drains and build dykes to prevent entry into sewer systems or bodies of water.

**6.3. Methods and material for containment and cleaning up**
Contain spill. Working from around the edges of the spill inward, cover with bentonite, vermiculite, or commercially available inorganic absorbent material. Mix in sufficient absorbent until it appears dry. Remember, adding an absorbent material does not remove a physical, health, or environmental hazard. Collect as much of the spilled material as possible. Place in a closed container approved for transportation by appropriate authorities. Clean up residue with an appropriate solvent selected by a qualified and authorised person. Ventilate the area with fresh air. Read and follow safety precautions on the solvent label and Safety Data Sheet. Seal the container. Dispose of collected material as soon as possible in accordance with applicable local/regional/national/international regulations.

## SECTION 7: Handling and storage

**7.1. Precautions for safe handling**
For industrial/occupational use only. Not for consumer sale or use. Avoid breathing dust/fume/gas/mist/vapours/spray. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Avoid release to the environment.

**7.2. Conditions for safe storage including any incompatibilities**
No special storage requirements.

## SECTION 8: Exposure controls/personal protection

**8.1 Control parameters**

**Occupational exposure limits**
If a component is disclosed in section 3 but does not appear in the table below, an occupational exposure limit is not available for the component.

| Ingredient | CAS Nbr | Agency | Limit type | Additional comments |
|---|---|---|---|---|
| Propane-1,2-diol | 57-55-6 | AIHA | TWA(as aerosol):10 mg/m3 | |
| Propan-2-ol | 67-63-0 | ACGIH | TWA:200 ppm;STEL:400 ppm | A4: Not class. as human carcin |

ACGIH : American Conference of Governmental Industrial Hygienists
AIHA : American Industrial Hygiene Association
CMRG : Chemical Manufacturer's Recommended Guidelines
TWA: Time-Weighted-Average
STEL: Short Term Exposure Limit
CEIL: Ceiling

**8.2. Exposure controls**

**8.2.1. Engineering controls**
Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below relevant Exposure Limits and/or control dust/fume/gas/mist/vapours/spray. If ventilation is not adequate, use respiratory protection equipment.

**8.2.2. Personal protective equipment (PPE)**

**Eye/face protection**

Select and use eye/face protection to prevent contact based on the results of an exposure assessment. The following eye/face protection(s) are recommended:
Full face shield.
Indirect vented goggles.

**Skin/hand protection**
No protective gloves required.

**Respiratory protection**

An exposure assessment may be needed to decide if a respirator is required. If a respirator is needed, use respirators as part of a full respiratory protection program. Based on the results of the exposure assessment, select from the following respirator type(s) to reduce inhalation exposure:
Half facepiece or full facepiece air-purifying respirator suitable for organic vapours and particulates

For questions about suitability for a specific application, consult with your respirator manufacturer.

## SECTION 9: Physical and chemical properties

**9.1. Information on basic physical and chemical properties**

| | |
|---|---|
| **Physical state** | Liquid. |
| **Specific Physical Form:** | Emulsion |
| **Color** | Light Pink |
| **Odor** | Fruity Odor |
| **Odour threshold** | *No data available.* |
| **pH** | 3 - 6.5 |
| **Melting point/Freezing point: NA** | *Not applicable.* |
| **Boiling point/Initial boiling point/Boiling range** | *No data available.* |
| **Flash point** | *Not applicable.* |
| **Evaporation rate** | *No data available.* |
| **Flammability** | Not applicable. |
| **Flammable Limits(LEL)** | *No data available.* |
| **Flammable Limits(UEL)** | *No data available.* |
| **Vapour pressure** | *No data available.* |
| **Relative Vapor Density** | *No data available.* |
| **Density** | 1 - 1.1 g/ml |
| **Relative density** | 1 - 1.1 [*Ref Std:*WATER=1] |
| **Water solubility** | *No data available.* |
| **Solubility- non-water** | *No data available.* |
| **Partition coefficient: n-octanol/water** | *No data available.* |
| **Autoignition temperature** | *No data available.* |
| **Decomposition temperature** | *Not applicable.* |
| **Kinematic Viscosity** | *No data available.* |
| **Volatile organic compounds (VOC)** | *No data available.* |
| **Percent volatile** | *No data available.* |
| **VOC less H2O & exempt solvents** | *No data available.* |

| | |
|---|---|
| **Particle Characteristics** | *Not applicable.* |

## SECTION 10: Stability and reactivity

**10.1 Reactivity**
This material is considered to be non reactive under normal use conditions

**10.2 Chemical stability**
Stable.

**10.3 Possibility of hazardous reactions**
Hazardous polymerisation will not occur.

**10.4 Conditions to avoid**
None known.

**10.5 Incompatible materials**
None known.

**10.6 Hazardous decomposition products**

| **Substance** | **Condition** |
|---|---|
| None known. | |

Refer to section 5.2 for hazardous decomposition products during combustion.

# SECTION 11: Toxicological information

**The information below may not be consistent with the material classification in Section 2 if specific ingredient classifications are mandated by a competent authority. In addition, toxicological data on ingredients may not be reflected in the material classification and/or the signs and symptoms of exposure, because an ingredient may be present below the threshold for labelling, an ingredient may not be available for exposure, or the data may not be relevant to the material as a whole.**

**11.1 Information on Toxicological effects**

**Signs and Symptoms of Exposure**

**Based on test data and/or information on the components, this material may produce the following health effects:**

**Inhalation**
Respiratory tract irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

**Skin contact**
Contact with the skin during product use is not expected to result in significant irritation.

**Eye contact**
Corrosive (eye burns): Signs/symptoms may include cloudy appearance of the cornea, chemical burns, severe pain, tearing, ulcerations, significantly impaired vision or complete loss of vision.

**Ingestion**
Gastrointestinal irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhoea.

**Toxicological Data**
If a component is disclosed in section 3 but does not appear in a table below, either no data are available for that endpoint or the data are not sufficient for classification.

**Acute Toxicity**

| Name | Route | Species | Value |
|---|---|---|---|
| Overall product | Ingestion | | No data available; calculated ATE >5,000 mg/kg |
| Poly(vinylpyrrolidinone)iodide | Dermal | Rat | LD50 > 2,500 mg/kg |
| Poly(vinylpyrrolidinone)iodide | Ingestion | Rat | LD50 > 4,640 mg/kg |
| Propane-1,2-diol | Dermal | Rabbit | LD50 20,800 mg/kg |
| Propane-1,2-diol | Ingestion | Rat | LD50 22,000 mg/kg |
| Propan-2-ol | Dermal | Rabbit | LD50 12,870 mg/kg |
| Propan-2-ol | Inhalation-Vapor (4 hours) | Rat | LC50 72.6 mg/l |
| Propan-2-ol | Ingestion | Rat | LD50 4,710 mg/kg |
| Surfactant | Dermal | Rat | LD50 > 2,000 mg/kg |
| Surfactant | Ingestion | Rat | LD50 2,870 mg/kg |
| Sodium nitrite | Ingestion | Rat | LD50 180 mg/kg |

ATE = acute toxicity estimate

**Skin Corrosion/Irritation**

| Name | Species | Value |
|---|---|---|
| Overall product | Rabbit | No significant irritation |
| Poly(vinylpyrrolidinone)iodide | Rabbit | Irritant |
| Propane-1,2-diol | Rabbit | No significant irritation |
| Propan-2-ol | Multiple animal species | No significant irritation |

| | | |
|---|---|---|
| Surfactant | Rabbit | Irritant |
| Sodium nitrite | Rabbit | No significant irritation |

**Serious Eye Damage/Irritation**

| Name | Species | Value |
|---|---|---|
| Poly(vinylpyrrolidinone)iodide | Rabbit | Corrosive |
| Propane-1,2-diol | Rabbit | No significant irritation |
| Propan-2-ol | Rabbit | Severe irritant |
| Surfactant | Rabbit | Corrosive |
| Sodium nitrite | Rabbit | Severe irritant |

**Sensitization:**

**Skin Sensitisation**

| Name | Species | Value |
|---|---|---|
| Overall product | Guinea pig | Not classified |
| Poly(vinylpyrrolidinone)iodide | Guinea pig | Not classified |
| Propane-1,2-diol | Human | Not classified |
| Propan-2-ol | Guinea pig | Not classified |
| Surfactant | Guinea pig | Not classified |

**Respiratory Sensitisation**

For the component/components, either no data are currently available or the data are not sufficient for classification.

**Germ Cell Mutagenicity**

| Name | Route | Value |
|---|---|---|
| Poly(vinylpyrrolidinone)iodide | In vivo | Not mutagenic |
| Poly(vinylpyrrolidinone)iodide | In Vitro | Some positive data exist, but the data are not sufficient for classification |
| Propane-1,2-diol | In Vitro | Not mutagenic |
| Propane-1,2-diol | In vivo | Not mutagenic |
| Propan-2-ol | In Vitro | Not mutagenic |
| Propan-2-ol | In vivo | Not mutagenic |
| Surfactant | In Vitro | Not mutagenic |
| Surfactant | In vivo | Not mutagenic |
| Sodium nitrite | In Vitro | Some positive data exist, but the data are not sufficient for classification |
| Sodium nitrite | In vivo | Some positive data exist, but the data are not sufficient for classification |

**Carcinogenicity**

| Name | Route | Species | Value |
|---|---|---|---|
| Propane-1,2-diol | Dermal | Mouse | Not carcinogenic |
| Propane-1,2-diol | Ingestion | Multiple animal species | Not carcinogenic |
| Propan-2-ol | Inhalation | Rat | Some positive data exist, but the data are not sufficient for classification |
| Sodium nitrite | Ingestion | Multiple animal species | Some positive data exist, but the data are not sufficient for classification |

**Reproductive Toxicity**

**Reproductive and/or Developmental Effects**

| Name | Route | Value | Species | Test result | Exposure Duration |
|---|---|---|---|---|---|
| Propane-1,2-diol | Ingestion | Not classified for female reproduction | Mouse | NOAEL 10,100 mg/kg/day | 2 generation |
| Propane-1,2-diol | Ingestion | Not classified for male reproduction | Mouse | NOAEL 10,100 mg/kg/day | 2 generation |
| Propane-1,2-diol | Ingestion | Not classified for development | Multiple animal species | NOAEL 1,230 mg/kg/day | during organogenesis |
| Propan-2-ol | Ingestion | Not classified for female reproduction | Rat | NOAEL 1,000 mg/kg/day | 2 generation |
| Propan-2-ol | Ingestion | Not classified for male reproduction | Rat | NOAEL 500 mg/kg/day | 2 generation |
| Propan-2-ol | Ingestion | Not classified for development | Rat | NOAEL 400 mg/kg/day | during organogenesis |
| Propan-2-ol | Inhalation | Not classified for development | Rat | LOAEL 9 mg/l | during gestation |
| Surfactant | Ingestion | Not classified for female reproduction | Rat | NOAEL 300 mg/kg/day | 90 days |
| Surfactant | Ingestion | Not classified for male reproduction | Rat | NOAEL 300 mg/kg/day | 90 days |
| Surfactant | Ingestion | Not classified for development | Rat | NOAEL 300 mg/kg/day | 2 generation |
| Sodium nitrite | Ingestion | Not classified for female reproduction | Mouse | NOAEL 425 mg/kg/day | 2 generation |
| Sodium nitrite | Ingestion | Not classified for male reproduction | Mouse | NOAEL 425 mg/kg/day | 2 generation |
| Sodium nitrite | Ingestion | Not classified for development | Rat | NOAEL 50 mg/kg/day | gestation into lactation |

## Target Organ(s)

### Specific Target Organ Toxicity - single exposure

| Name | Route | Target Organ(s) | Value | Species | Test result | Exposure Duration |
|---|---|---|---|---|---|---|
| Poly(vinylpyrrolidinone)iodide | Inhalation | respiratory irritation | Some positive data exist, but the data are not sufficient for classification | similar health hazards | NOAEL Not available | |
| Propane-1,2-diol | Ingestion | central nervous system depression | Not classified | Human and animal | NOAEL Not available | |
| Propan-2-ol | Inhalation | central nervous system depression | May cause drowsiness or dizziness | Human | NOAEL Not available | |
| Propan-2-ol | Inhalation | respiratory irritation | Some positive data exist, but the data are not sufficient for classification | Human | NOAEL Not available | |
| Propan-2-ol | Inhalation | auditory system | Not classified | Guinea pig | NOAEL 13.4 mg/l | 24 hours |
| Propan-2-ol | Ingestion | central nervous system depression | May cause drowsiness or dizziness | Human | NOAEL Not available | poisoning and/or abuse |
| Surfactant | Inhalation | respiratory irritation | Some positive data exist, but the data are not sufficient for classification | similar health hazards | NOAEL Not available | |
| Sodium nitrite | Inhalation | respiratory irritation | Some positive data exist, but the data are not sufficient for classification | similar health hazards | NOAEL Not available | |
| Sodium nitrite | Ingestion | methemoglobinemia | Causes damage to organs | Human | NOAEL Not available | |

### Specific Target Organ Toxicity - repeated exposure

| Name | Route | Target Organ(s) | Value | Species | Test result | Exposure Duration |
|---|---|---|---|---|---|---|
| Poly(vinylpyrrolidinone)io | Ingestion | endocrine system | Not classified | similar | NOAEL Not | |

| | | | | | | |
|---|---|---|---|---|---|---|
| dide | | | | compoun ds | available | |
| Propane-1,2-diol | Ingestion | hematopoietic system | Not classified | Multiple animal species | NOAEL 1,370 mg/kg/day | 117 days |
| Propane-1,2-diol | Ingestion | kidney and/or bladder | Not classified | Dog | NOAEL 5,000 mg/kg/day | 104 weeks |
| Propan-2-ol | Inhalation | kidney and/or bladder | Not classified | Rat | NOAEL 12.3 mg/l | 24 months |
| Propan-2-ol | Inhalation | nervous system | Not classified | Rat | NOAEL 12 mg/l | 13 weeks |
| Propan-2-ol | Ingestion | kidney and/or bladder | Not classified | Rat | NOAEL 400 mg/kg/day | 12 weeks |
| Surfactant | Dermal | skin | Not classified | Mouse | NOAEL 6.91 mg/day | 90 days |
| Surfactant | Dermal | heart | Not classified | Mouse | NOAEL 6.91 mg/day | 90 days |
| Surfactant | Dermal | endocrine system | Not classified | Mouse | NOAEL 6.91 mg/day | 90 days |
| Surfactant | Dermal | gastrointestinal tract | Not classified | Mouse | NOAEL 6.91 mg/day | 90 days |
| Surfactant | Dermal | hematopoietic system | Not classified | Mouse | NOAEL 6.91 mg/day | 90 days |
| Surfactant | Dermal | liver | Not classified | Mouse | NOAEL 6.91 mg/day | 90 days |
| Surfactant | Dermal | immune system | Not classified | Mouse | NOAEL 6.91 mg/day | 90 days |
| Surfactant | Dermal | nervous system | Not classified | Mouse | NOAEL 6.91 mg/day | 90 days |
| Surfactant | Dermal | eyes | Not classified | Mouse | NOAEL 6.91 mg/day | 90 days |
| Surfactant | Dermal | kidney and/or bladder | Not classified | Mouse | NOAEL 6.91 mg/day | 90 days |
| Surfactant | Dermal | respiratory system | Not classified | Mouse | NOAEL 6.91 mg/day | 90 days |
| Surfactant | Dermal | vascular system | Not classified | Mouse | NOAEL 6.91 mg/day | 90 days |
| Surfactant | Ingestion | blood | Not classified | Rat | NOAEL 225 mg/kg/day | 90 days |
| Surfactant | Ingestion | eyes | Not classified | Rat | NOAEL 225 mg/kg/day | 90 days |
| Sodium nitrite | Ingestion | skin | Not classified | Rat | NOAEL 310 mg/kg/day | 14 weeks |
| Sodium nitrite | Ingestion | gastrointestinal tract | Not classified | Rat | NOAEL 310 mg/kg/day | 14 weeks |
| Sodium nitrite | Ingestion | hematopoietic system | Not classified | Rat | NOAEL 310 mg/kg/day | 14 weeks |
| Sodium nitrite | Ingestion | eyes | Not classified | Rat | NOAEL 310 mg/kg/day | 14 weeks |
| Sodium nitrite | Ingestion | kidney and/or bladder | Not classified | Rat | NOAEL 310 mg/kg/day | 14 weeks |
| Sodium nitrite | Ingestion | heart | Not classified | Rat | NOAEL 310 mg/kg/day | 14 weeks |
| Sodium nitrite | Ingestion | endocrine system | Not classified | Rat | NOAEL 310 mg/kg/day | 14 weeks |
| Sodium nitrite | Ingestion | bone, teeth, nails, and/or hair | Not classified | Rat | NOAEL 310 mg/kg/day | 14 weeks |
| Sodium nitrite | Ingestion | liver | Not classified | Rat | NOAEL 310 mg/kg/day | 14 weeks |
| Sodium nitrite | Ingestion | immune system | Not classified | Rat | NOAEL 310 mg/kg/day | 14 weeks |
| Sodium nitrite | Ingestion | muscles | Not classified | Rat | NOAEL 310 mg/kg/day | 14 weeks |
| Sodium nitrite | Ingestion | nervous system | Not classified | Rat | NOAEL 310 mg/kg/day | 14 weeks |
| Sodium nitrite | Ingestion | respiratory system | Not classified | Rat | NOAEL 310 | 14 weeks |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | | | | mg/kg/day | |

**Aspiration Hazard**
For the component/components, either no data are currently available or the data are not sufficient for classification.

**Please contact the address or phone number listed on the first page of the SDS for additional toxicological information on this material and/or its components.**

## SECTION 12: Ecological information

**The information below may not be consistent with the material classification in Section 2 if specific ingredient classifications are mandated by a competent authority. Additional information leading to material classification in Section 2 is available upon request. In addition, environmental fate and effects data on ingredients may not be reflected in this section because an ingredient is present below the threshold for labelling, an ingredient is not expected to be available for exposure, or the data is considered not relevant to the material as a whole.**

**12.1. Toxicity**

**Acute aquatic hazard:**
GHS Acute 3: Harmful to aquatic life.

**Chronic aquatic hazard:**
GHS Chronic 3: Harmful to aquatic life with long lasting effects.

No product test data available.

| Material | CAS Nbr | Organism | Type | Exposure | Test endpoint | Test result |
|---|---|---|---|---|---|---|
| Poly(vinylpyrrolidinone)iodide | 25655-41-8 | Golden Orfe | Experimental | 96 hours | LC50 | 4.6 mg/l |
| Poly(vinylpyrrolidinone)iodide | 25655-41-8 | Green algae | Experimental | 72 hours | ErC50 | 4.91 mg/l |
| Poly(vinylpyrrolidinone)iodide | 25655-41-8 | Water flea | Experimental | 48 hours | EC50 | 2.79 mg/l |
| Poly(vinylpyrrolidinone)iodide | 25655-41-8 | Bacteria | Experimental | 17 hours | EC10 | 270 mg/l |
| Propane-1,2-diol | 57-55-6 | Amphipod | Experimental | 10 days | LC50 | 6,983 mg/kg (Dry Weight) |
| Propane-1,2-diol | 57-55-6 | Green algae | Experimental | 96 hours | EC50 | 19,000 mg/l |
| Propane-1,2-diol | 57-55-6 | Mysid Shrimp | Experimental | 96 hours | LC50 | 18,800 mg/l |
| Propane-1,2-diol | 57-55-6 | Rainbow trout | Experimental | 96 hours | LC50 | 40,613 mg/l |
| Propane-1,2-diol | 57-55-6 | Water flea | Experimental | 48 hours | EC50 | 18,340 mg/l |
| Propane-1,2-diol | 57-55-6 | Green algae | Experimental | 96 hours | NOEC | 15,000 mg/l |
| Propane-1,2-diol | 57-55-6 | Water flea | Experimental | 7 days | NOEC | 13,020 mg/l |
| Propane-1,2-diol | 57-55-6 | Bacteria | Experimental | 18 hours | NOEC | >20,000 mg/l |
| Propan-2-ol | 67-63-0 | Bacteria | Experimental | 16 hours | LOEC | 1,050 mg/l |
| Propan-2-ol | 67-63-0 | Green algae | Experimental | 72 hours | EC50 | >1,000 mg/l |
| Propan-2-ol | 67-63-0 | Invertebrate | Experimental | 24 hours | LC50 | >10,000 mg/l |
| Propan-2-ol | 67-63-0 | Medaka | Experimental | 96 hours | LC50 | >100 mg/l |
| Propan-2-ol | 67-63-0 | Water flea | Experimental | 48 hours | EC50 | >1,000 mg/l |
| Propan-2-ol | 67-63-0 | Green algae | Experimental | 72 hours | NOEC | 1,000 mg/l |
| Propan-2-ol | 67-63-0 | Water flea | Experimental | 21 days | NOEC | 100 mg/l |
| Surfactant | Trade Secret | Bacteria | Experimental | 16 hours | ErC50 | >10,000 mg/l |
| Surfactant | Trade Secret | Green algae | Experimental | 72 hours | ErC50 | 27.7 mg/l |
| Surfactant | Trade Secret | Water flea | Experimental | 48 hours | EC50 | 7.2 mg/l |
| Surfactant | Trade Secret | Zebra Fish | Experimental | 96 hours | LC50 | 7.1 mg/l |
| Surfactant | Trade Secret | Water flea | Analogous Compound | 21 days | NOEC | 0.27 mg/l |
| Surfactant | Trade Secret | Green algae | Experimental | 72 hours | NOEC | 0.95 mg/l |
| Sodium nitrite | 7632-00-0 | Green algae | Experimental | 72 hours | EC50 | >100 mg/l |
| Sodium nitrite | 7632-00-0 | Invertebrate | Experimental | 48 hours | LC50 | 37 mg/l |
| Sodium nitrite | 7632-00-0 | Rainbow trout | Experimental | 96 hours | LC50 | 0.9 mg/l |

| | | | | | | |
|---|---|---|---|---|---|---|
| Sodium nitrite | 7632-00-0 | Fathead minnow | Estimated | 32 days | NOEC | 3.1 mg/l |

### 12.2. Persistence and degradability

| Material | CAS Nbr | Test type | Duration | Study Type | Test result | Protocol |
|---|---|---|---|---|---|---|
| Poly(vinylpyrrolidinone)iodide | 25655-41-8 | Experimental Biodegradation | 28 days | CO2 evolution | <10 %CO2 evolution/THCO2 evolution | ISO 14593 Inorg C Headspace |
| Propane-1,2-diol | 57-55-6 | Experimental Biodegradation | 28 days | BOD | 90 %BOD/ThOD | OECD 301C - MITI test (I) |
| Propane-1,2-diol | 57-55-6 | Experimental Biodegradation | 64 days | Dissolv. Organic Carbon Deplet | 95.8 %removal of DOC | OECD 306(Misc)-Biodegrad. Seaw |
| Propan-2-ol | 67-63-0 | Experimental Biodegradation | 14 days | BOD | 86 %BOD/ThOD | OECD 301C - MITI test (I) |
| Surfactant | Trade Secret | Experimental Biodegradation | 28 days | Dissolv. Organic Carbon Deplet | 100 %CO2 evolution/THCO2 evolution | EC C.4.C. CO2 Evolution Test |
| Sodium nitrite | 7632-00-0 | Data not available-insufficient | N/A | N/A | N/A | N/A |

### 12.3 : Bioaccumulative potential

| Material | CAS Nbr | Test type | Duration | Study Type | Test result | Protocol |
|---|---|---|---|---|---|---|
| Poly(vinylpyrrolidinone)iodide | 25655-41-8 | Unknown Bioconcentration | | Log Kow | 0.81 | |
| Propane-1,2-diol | 57-55-6 | Experimental Bioconcentration | | Log Kow | -1.07 | EC A.8 Partition Coefficient |
| Propan-2-ol | 67-63-0 | Experimental Bioconcentration | | Log Kow | 0.05 | |
| Surfactant | Trade Secret | Experimental Bioconcentration | | Log Kow | 0.3 | OECD 123 log Kow slow stir |
| Sodium nitrite | 7632-00-0 | Experimental Bioconcentration | | Log Kow | -3.7 | OECD 107 log Kow shke flsk mtd |

### 12.4. Mobility in soil
Please contact manufacturer for more details

### 12.5 Other Adverse effects
No information available.

## SECTION 13: Disposal considerations

### 13.1. Disposal methods
Dispose of contents/ container in accordance with the local/regional/national/international regulations.

Dispose of waste product in a permitted industrial waste facility. Empty drums/barrels/containers used for transporting and handling hazardous chemicals (chemical substances/mixtures/preparations classified as Hazardous as per applicable regulations) shall be considered, stored, treated & disposed of as hazardous wastes unless otherwise defined by applicable waste regulations. Consult with the respective regulating authorities to determine the available treatment and disposal facilities.

## SECTION 14: Transport Information

Not hazardous for transportation.

**Air Transport (IATA)Regulations**

**UN No** Not applicable
**Proper Shipping Name** Not applicable
**Hazard Classs/Division** Not applicable
**Subsidiary Risk** Not applicable
**Other Dangerous Goods Descriptions:** None assigned.

**Packing Group:** Not applicable

**Marine Transport (IMDG)**
**UN No** Not applicable
**Proper Shipping Name** Not applicable
**Hazard Classs/Division** Not applicable
**Subsidiary Risk** Not applicable
**Other Dangerous Goods Descriptions:** None assigned.

**Packing Group:** Not applicable
**Environmental Hazards:** Not applicable

## SECTION 15: Regulatory information

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

**Global inventory status**
Contact 3M for more information.

**Applicable Environmental, Health and Safety Regulations**
The Manufacture, Storage and Import of Hazardous Chemical Rules, 1989
The Bio Medical Waste (Management & Handling) Rules, 1998
Hazardous Chemicals (Classification, Packaging and Labelling Draft Rules), 2011

The following ingredients are listed as hazardous on Part II of Schedule I of the India Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) rules
Propan-2-ol

The following ingredients are classified as hazardous based on the criteria listed under Part I of Schedule I of the India Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) rules:
The product is classified as Non-Hazardous as per MSIHC Rules, 1989.

## SECTION 16: Other information

**NFPA Hazard Classification**
**Health:** 3 **Flammability:** 1 **Instability:** 0 **Special Hazards:** None

National Fire Protection Association (NFPA) hazard ratings are designed for use by emergency response personnel to address the hazards that are presented by short-term, acute exposure to a material under conditions of fire, spill, or similar emergencies. Hazard ratings are primarily based on the inherent physical and toxic properties of the material but also include the toxic properties of combustion or decomposition products that are known to be generated in significant quantities.

**Revision information:**
Label: GHS Classification information was added.
Label: GHS Classification information was modified.
Label: GHS Precautionary - Prevention information was modified.
Label: GHS Precautionary - Response information was added.
Label: GHS Target Organ Hazard Statement information was deleted.

Label: Graphic information was modified.
Label: Symbol information was modified.
Section 2: Ingredient table information was modified.
Section 04: First Aid - Symptoms and Effects (GHS) information was modified.
Section 4: First aid for eye contact information information was modified.
Section 4: First aid for skin contact information information was modified.
Section 5: Hazardous combustion products table information was modified.
Section 6: Accidental release personal information information was modified.
Section 7: Precautions safe handling information information was modified.
Section 8: Eye protection information information was deleted.
Section 8: Eye/face protection information information was added.
Section 8: Occupational exposure limit table information was modified.
Section 8: Personal Protection - Eye information information was added.
Section 8: Respiratory protection - recommended respirators information information was modified.
Section 9: Flammability (solid, gas) information information was deleted.
Section 09: Flammability information information was added.
Section 09: Kinematic Viscosity information information was added.
Section 09: Particle Characteristics N/A information was added.
Section 09: Vapor Density Value information was modified.
Section 09: Viscosity information was deleted.
Section 11: Acute Toxicity table information was modified.
Section 11: Carcinogenicity Table information was modified.
Section 11: Germ Cell Mutagenicity Table information was modified.
Section 11: Health Effects - Eye information information was modified.
Section 11: Health Effects - Ingestion information information was modified.
Section 11: Prolonged or repeated exposure may cause standard phrases information was deleted.
Section 11: Reproductive Toxicity Table information was modified.
Section 11: Serious Eye Damage/Irritation Table information was modified.
Section 11: Skin Corrosion/Irritation Table information was modified.
Section 11: Skin Sensitization Table information was modified.
Section 11: Target Organs - Repeated Table information was modified.
Section 11: Target Organs - Single Table information was modified.
Section 12: Component ecotoxicity information information was modified.
Section 12: Persistence and Degradability information information was modified.
Section 12:Bioccumulative potential information information was modified.
Section 14: Air Transport - Other Dangerous Goods Descriptions heading information was added.
Section 14: Marine Transport - Other Dangerous Goods Descriptions heading information was added.
Section 14: Other Dangerous Goods Descriptions (IATA) information was added.
Section 14: Other Dangerous Goods Descriptions (IMO) information was added.
Section 15: MSIHC Ingredients information was modified.
Section 16: NFPA hazard classification for health information was modified.

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