

Safety Data Sheet

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This product is defined as an article as per the Occupational Safety and Health Administration's Hazard Communication Standard (29 CFR 1910.1200(b)(6)(v)). As defined in this Standard:

'Article' means a manufactured item other than a fluid or particle: (i) which is formed to a specific shape or design during manufacture; (ii) which has end use function(s) dependent in whole or in part upon its shape or design during end use; and (iii) which under normal conditions of use does not release more than very small quantities, e.g., minute or trace amounts of a hazardous chemical, and which does not pose a physical hazard or health risk to employees.

When used under reasonable conditions and in accordance with the directions for use, the product should not present a health and safety hazard. However, use or processing of the product in a manner not in accordance with the directions for use may affect its performance and present potential health and safety hazards.

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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 1400 Series EMS Ball Markers

Product Identification Numbers

80-6116-2899-3 80-6116-2900-9

1.2. Recommended use and restrictions on use

Recommended use

To identify and locate the buried networks of telecommunication of gas or electricity water, Flotation solution allows antenna to keep correct orientation in ball. Propylene glycol lowers freezing point.

1.3. Supplier's details

Address: 3M India Limited, plot-48-51, Electronic city, Hosur road, Bangalore-560100

Telephone: 080-39143000, contact Product EHS team

E Mail: productehs.in@mmm.com
Website: http://solutions.3mindia.co.in

1.4. Emergency telephone number

080-39143000 (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

This product is considered to be an article and is exempt from GHS classification.

2.2. Label elements

Signal Word

Symbols

Pictograms

Not applicable.

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 | 50 - 60 |
| Propane-1,2-diol | 57-55-6 | 10 - 20 |
| Electronics | Mixture | 10 - 20 |
| Polyethylene | 9002-88-4 | 10 - 20 |

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation

No need for first aid is anticipated.

Skin contact

No need for first aid is anticipated.

Eve contact

No need for first aid is anticipated.

If swallowed

No need for first aid is anticipated.

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

See Section 11.1 Information on toxicological effects

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 carbon dioxide or dry chemical extinguisher to extinguish.

5.2. Special hazards arising from the substance or mixture

None inherent in this product.

Hazardous Decomposition or By-Products

Substance

Aldehydes.

Carbon monoxide.

Carbon dioxide.

Condition

During combustion. During combustion.

During combustion.

5.3. Special protective actions for fire-fighters

No special protective actions for fire-fighters are anticipated.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Not applicable.

6.2. Environmental precautions

Not applicable.

6.3. Methods and material for containment and cleaning up

Not applicable.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

This product is considered to be an article which does not release or otherwise result in exposure to a hazardous chemical under normal use conditions.

7.2. Conditions for safe storage including any incompatibilities

Not applicable.

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 | |

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

Not applicable.

8.2.2. Personal protective equipment (PPE)

Eye/face protection

Eye protection not required.

Skin/hand protection

PPE No chemical protective gloves are required.

Respiratory protection

Respiratory protection is not required.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state Solid. Bila plastic cu solutie la interior.

Specific Physical Form: Bila plastic cu lichid la interior.

ColorMulticolorOdorOdourlessOdour thresholdNot applicable.pHNot applicable.Melting point/Freezing point: NANo data available.Boiling point/Initial boiling point/Boiling rangeNot applicable.Flash pointNo flash point

Evaporation rate Nil

Flammability (solid, gas)

Flammable Limits(LEL)

Flammable Limits(UEL)

Vapour pressure

Vapour density

Vapour density

No data available.

Vapour density

No data available.

Relative density $\pm 1 \text{ g/ml} \quad [Ref Std: WATER=1]$

Water solubility Nil

Solubility- non-water *Not applicable.* Partition coefficient: n-octanol/water No data available. **Autoignition temperature** Not applicable. **Decomposition temperature** Not applicable. Not applicable. Viscosity Not applicable. Average particle size Not applicable. **Bulk density** No data available. Molecular weight Volatile organic compounds (VOC) Not applicable. Not applicable. Percent volatile No data available. **Softening point** VOC less H2O & exempt solvents No data available. Ash 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.

Under recommended usage conditions, hazardous decomposition products are not expected. Hazardous decomposition products may occur as a result of oxidation, heating, or reaction with another material.

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

No health effects are expected.

Skin contact

No health effects are expected.

Eye contact

No health effects are expected.

Ingestion

No health effects are expected.

Additional information:

This product, when used under reasonable conditions and in accordance with the 3M directions for use, should not present a health hazard. However, use or processing of the product in a manner not in accordance with the product's directions for use may affect the performance of the product and may present potential health and safety hazards

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

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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 |
| Propane-1,2-diol | Dermal | Rabbit | LD50 20,800 mg/kg |
| Propane-1,2-diol | Ingestion | Rat | LD50 22,000 mg/kg |
| Polyethylene | Dermal | | LD50 estimated to be > 5,000 mg/kg |
| Polyethylene | Ingestion | Rat | LD50 > 2,000 mg/kg |

ATE = acute toxicity estimate

Skin Corrosion/Irritation

| Name | Species | Value |
|------------------|-----------------------------------|---------------------------|
| Propane-1,2-diol | Rabbit | No significant irritation |
| Polyethylene | Professio nal judgemen t | No significant irritation |

Serious Eye Damage/Irritation

| Name | Species | Value |
|------------------|---------|---------------------------|
| Propane-1,2-diol | Rabbit | No significant irritation |

Skin Sensitisation

| Name | Species | Value |
|------------------|---------|----------------|
| Propane-1,2-diol | Human | 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 |
|------------------|----------|---------------|
| Propane-1,2-diol | In Vitro | Not mutagenic |
| Propane-1,2-diol | In vivo | Not mutagenic |

Carcinogenicity

| Name | Route | Species | Value |
|------------------|------------|----------|--|
| Propane-1,2-diol | Dermal | Mouse | Not carcinogenic |
| Propane-1,2-diol | Ingestion | Multiple | Not carcinogenic |
| | | animal | |
| | | species | |
| Polyethylene | Not | Multiple | Some positive data exist, but the data are not |
| | specified. | animal | sufficient for classification |
| | | species | |

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 | NOAEL | during |

Dogge 6 of

| | animal | 1,230 | organogenesis |
|--|---------|-----------|---------------|
| | species | mg/kg/day | |

Target Organ(s)

Specific Target Organ Toxicity - single exposure

| Specific runger organi | | mgre emposure | | | | |
|------------------------|-----------|--------------------------------------|----------------|------------------------|------------------------|----------------------|
| Name | Route | Target Organ(s) | Value | Species | Test result | Exposure Duration |
| Propane-1,2-diol | Ingestion | central nervous system depression | Not classified | Human and animal | NOAEL Not available | |

Specific Target Organ Toxicity - repeated exposure

| Name | Route | Target Organ(s) | Value | Species | Test result | Exposure Duration |
|------------------|-----------|--------------------------|----------------|-------------------------------|-----------------------------|----------------------|
| 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 |

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:

Not acutely toxic to aquatic life by GHS criteria.

Chronic aquatic hazard:

Not chronically toxic to aquatic life by GHS criteria.

No product test data available.

| Material | CAS Nbr | Organism | Type | Exposure | Test endpoint | Test result |
|----------------------|---------|-----------------|--------------|----------|---------------|-------------|
| Propane-1,2- diol | 57-55-6 | Crustacea other | Experimental | 96 hours | LC50 | 18,800 mg/l |
| Propane-1,2- diol | 57-55-6 | Green Algae | Experimental | 96 hours | EC50 | 19,000 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 |
|------------------|-----------|------------|--|--------|------|-------------|
| | 9002-88-4 | | Data not available or insufficient for classification | | | |

12.2. Persistence and degradability

| Material | CAS Nbr | Test type | Duration | Study Type | Test result | Protocol |
|--------------|-----------|----------------|----------|------------|-------------|------------------|
| Propane-1,2- | 57-55-6 | Experimental | 28 days | BOD | 90 % | OECD 301C - MITI |
| diol | | Biodegradation | | | BOD/ThBOD | test (I) |
| Polyethylene | 9002-88-4 | Data not | | | N/A | |
| | | available- | | | | |
| | | insufficient | | | | |

12.3: Bioaccumulative potential

| Material | CAS Nbr | Test type | Duration | Study Type | Test result | Protocol |
|----------------------|-----------|--|----------|------------|-------------|---------------|
| Propane-1,2- diol | 57-55-6 | Experimental Bioconcentrati | | Log Kow | -0.92 | Other methods |
| | | on | | | | |
| Polyethylene | 9002-88-4 | Data not available or insufficient for classification | N/A | N/A | N/A | N/A |

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.

Prior to disposal, consult all applicable authorities and regulations to insure proper classification. Dispose of waste product in a permitted industrial waste facility. As a disposal alternative, incinerate in a permitted waste incineration facility. If no other disposal options are available, waste product may be placed in a landfill properly designed for industrial waste.

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 **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 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 following ingredients are listed as hazardous on Part II of Schedule I of the India Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) rules None.

SECTION 16: Other information

NFPA Hazard Classification

Health: 0 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:

No revision information

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3M India SDSs are available at http://solutions.3mindia.co.in