



## Safety Data Sheet

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| <b>Document Group:</b> | 32-1607-4 | <b>Version Number:</b>  | 4.00     |
| <b>Issue Date:</b>     | 04/24/15  | <b>Supersedes Date:</b> | 09/22/14 |

### SECTION 1: Identification

#### 1.1. Product identifier

3M™ Process Color 880I Series Special Color CF0880i-208 Light Gray

#### Product Identification Numbers

75-0302-4084-2

#### 1.2. Recommended use and restrictions on use

##### Recommended use

Ink

#### 1.3. Supplier's details

|                      |                                         |
|----------------------|-----------------------------------------|
| <b>MANUFACTURER:</b> | 3M                                      |
| <b>DIVISION:</b>     | Traffic Safety and Security Division    |
| <b>ADDRESS:</b>      | 3M Center, St. Paul, MN 55144-1000, USA |
| <b>Telephone:</b>    | 1-888-3M HELPS (1-888-364-3577)         |

#### 1.4. Emergency telephone number

1-800-364-3577 or (651) 737-6501 (24 hours)

### SECTION 2: Hazard identification

#### 2.1. Hazard classification

Flammable Liquid: Category 3.

Serious Eye Damage/Irritation: Category 2A.

Skin Sensitizer: Category 1.

Reproductive Toxicity: Category 1B.

Carcinogenicity: Category 2.

#### 2.2. Label elements

##### Signal word

Danger

##### Symbols

Flame | Exclamation mark | Health Hazard |

##### Pictograms



#### **Hazard Statements**

Flammable liquid and vapor.

Causes serious eye irritation.

May cause an allergic skin reaction.

May damage fertility or the unborn child.

Suspected of causing cancer.

#### **Precautionary Statements**

##### **Prevention:**

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

Ground/bond container and receiving equipment.

Use only non-sparking tools.

Take precautionary measures against static discharge.

Keep container tightly closed.

Use explosion-proof electrical/ventilating/lighting equipment.

Do not breathe dust/fume/gas/mist/vapors/spray.

Use only outdoors or in a well-ventilated area.

Wear protective gloves and eye/face protection.

Do not eat, drink or smoke when using this product.

Wash thoroughly after handling.

Contaminated work clothing must not be allowed out of the workplace.

##### **Response:**

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

If skin irritation or rash occurs: Get medical advice/attention.

Wash contaminated clothing before reuse.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

If eye irritation persists: Get medical advice/attention.

IF exposed or concerned: Get medical advice/attention.

In case of fire: Use a fire fighting agent suitable for flammable liquids such as dry chemical or carbon dioxide to extinguish.

##### **Storage:**

Store in a well-ventilated place. Keep cool.

Store locked up.

##### **Disposal:**

Dispose of contents/container in accordance with applicable local/regional/national/international regulations.

#### **2.3. Hazards not otherwise classified**

None.

## **SECTION 3: Composition/information on ingredients**

| <b>Ingredient</b>                                                    | <b>C.A.S. No.</b> | <b>% by Wt</b>           |
|----------------------------------------------------------------------|-------------------|--------------------------|
| Dipropylene glycol methyl ether acetate                              | 88917-22-0        | 30 - 60                  |
| Butyl methacrylate-methyl methacrylate polymer                       | 25608-33-7        | 15 - 40 Trade Secret *   |
| Cyclohexanone                                                        | 108-94-1          | 5 - 10 Trade Secret *    |
| 1-Methoxy-2-propyl acetate                                           | 108-65-6          | 5 - 10                   |
| 3-Dodecyl-1-(2,2,6,6-tetramethyl-4-piperidiny) -2,5-pyrrolidinedione | 79720-19-7        | 0.1 - 1.0                |
| Titanium dioxide                                                     | 13463-67-7        | 0.1 - 1.0 Trade Secret * |
| Toluene                                                              | 108-88-3          | < 0.3 Trade Secret *     |
| Ethylbenzene                                                         | 100-41-4          | < 0.3 Trade Secret *     |
| N-Butyl methacrylate                                                 | 97-88-1           | < 0.3 Trade Secret *     |

\*The specific chemical identity and/or exact percentage (concentration) of this composition has been withheld as a trade secret.

## 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:**

Immediately wash with soap and water. Remove contaminated clothing and wash before reuse. If signs/symptoms develop, get medical attention.

#### **Eye Contact:**

Immediately flush with large amounts of water. Remove contact lenses if easy to do. Continue rinsing. 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

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 fire fighting agent suitable for flammable liquids such as dry chemical or carbon dioxide to extinguish.

### 5.2. Special hazards arising from the substance or mixture

Closed containers exposed to heat from fire may build pressure and explode.

### Hazardous Decomposition or By-Products

#### Substance

Hydrocarbons  
Carbon monoxide  
Carbon dioxide

#### Condition

During Combustion  
During Combustion  
During Combustion

**5.3. Special protective actions for fire-fighters**

Water may not effectively extinguish fire; however, it should be used to keep fire-exposed containers and surfaces cool and prevent explosive rupture.

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

Evacuate area. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use only non-sparking tools. 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. Warning! A motor could be an ignition source and could cause flammable gases or vapors in the spill area to burn or explode. Refer to other sections of this SDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment.

**6.2. Environmental precautions**

Avoid release to the environment. For larger spills, cover drains and build dikes to prevent entry into sewer systems or bodies of water.

**6.3. Methods and material for containment and cleaning up**

Contain spill. Cover spill area with a fire-extinguishing foam designed for use on solvents, such as alcohols and acetone, that can dissolve in water. An AR - AFFF type foam is recommended. 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 using non-sparking tools. Place in a metal container approved for transportation by appropriate authorities. Clean up residue with an appropriate solvent selected by a qualified and authorized person. Ventilate the area with fresh air. Read and follow safety precautions on the solvent label and SDS. Seal the container. Dispose of collected material as soon as possible.

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

For industrial or professional use only. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use only non-sparking tools. Take precautionary measures against static discharge. Do not breathe dust/fume/gas/mist/vapors/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. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wash contaminated clothing before reuse. Avoid contact with oxidizing agents (eg. chlorine, chromic acid etc.) Wear low static or properly grounded shoes. Use personal protective equipment (gloves, respirators, etc.) as required. To minimize the risk of ignition, determine applicable electrical classifications for the process using this product and select specific local exhaust ventilation equipment to avoid flammable vapor accumulation. Ground/bond container and receiving equipment if there is potential for static electricity accumulation during transfer.

**7.2. Conditions for safe storage including any incompatibilities**

Store in a well-ventilated place. Keep cool. Keep container tightly closed. Store away from acids. Store away from oxidizing agents.

**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 | C.A.S. No. | Agency | Limit type | Additional Comments |
|------------|------------|--------|------------|---------------------|
|------------|------------|--------|------------|---------------------|

|                                         |            |                         |                                 |                                             |
|-----------------------------------------|------------|-------------------------|---------------------------------|---------------------------------------------|
| Ethylbenzene                            | 100-41-4   | ACGIH                   | TWA:20 ppm                      | A3: Confirmed animal carcin.                |
| Ethylbenzene                            | 100-41-4   | CMRG                    | TWA:25 ppm;STEL:75 ppm          |                                             |
| Ethylbenzene                            | 100-41-4   | OSHA                    | TWA:435 mg/m3(100 ppm)          |                                             |
| 1-Methoxy-2-propyl acetate              | 108-65-6   | AIHA                    | TWA:50 ppm                      |                                             |
| 1-Methoxy-2-propyl acetate              | 108-65-6   | CMRG                    | TWA:10 mg/m3;STEL:90 ppm        |                                             |
| Toluene                                 | 108-88-3   | ACGIH                   | TWA:20 ppm                      | A4: Not class. as human carcin              |
| Toluene                                 | 108-88-3   | CMRG                    | STEL:75 ppm                     | Skin Notation                               |
| Toluene                                 | 108-88-3   | OSHA                    | TWA:200 ppm;CEIL:300 ppm        |                                             |
| Cyclohexanone                           | 108-94-1   | ACGIH                   | TWA:20 ppm;STEL:50 ppm          | A3: Confirmed animal carcin., Skin Notation |
| Cyclohexanone                           | 108-94-1   | OSHA                    | TWA:200 mg/m3(50 ppm)           |                                             |
| Titanium dioxide                        | 13463-67-7 | ACGIH                   | TWA:10 mg/m3                    | A4: Not class. as human carcin              |
| Titanium dioxide                        | 13463-67-7 | CMRG                    | TWA(as respirable dust):5 mg/m3 |                                             |
| Titanium dioxide                        | 13463-67-7 | OSHA                    | TWA(as total dust):15 mg/m3     |                                             |
| Dipropylene glycol methyl ether acetate | 88917-22-0 | Manufacturer determined | TWA:100 ppm;STEL:150 ppm        | Skin Notation                               |
| N-Butyl methacrylate                    | 97-88-1    | CMRG                    | TWA:50 ppm;STEL:75 ppm          |                                             |

ACGIH : American Conference of Governmental Industrial Hygienists

AIHA : American Industrial Hygiene Association

CMRG : Chemical Manufacturer's Recommended Guidelines

OSHA : United States Department of Labor - Occupational Safety and Health Administration

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/vapors/spray. If ventilation is not adequate, use respiratory protection equipment. Use explosion-proof ventilation 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:

Indirect Vented Goggles

#### Skin/hand protection

Select and use gloves and/or protective clothing approved to relevant local standards to prevent skin contact based on the results of an exposure assessment. Selection should be based on use factors such as exposure levels, concentration of the substance or mixture, frequency and duration, physical challenges such as temperature extremes, and other use conditions. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible gloves/protective clothing. Note: Nitrile gloves may be worn over polymer laminate gloves to improve dexterity.

Gloves made from the following material(s) are recommended: Polymer laminate

If this product is used in a manner that presents a higher potential for exposure (eg. spraying, high splash potential etc.), then use of protective coveralls may be necessary. Select and use body protection to prevent contact based on the results of an exposure assessment. The following protective clothing material(s) are recommended: Apron - polymer laminate

## 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 vapors 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

|                                                |                                                          |
|------------------------------------------------|----------------------------------------------------------|
| <b>General Physical Form:</b>                  | Liquid                                                   |
| <b>Odor, Color, Grade:</b>                     | sweet solvent-like odor, gray in color, liquid           |
| <b>Odor threshold</b>                          | <i>No Data Available</i>                                 |
| <b>pH</b>                                      | <i>Not Applicable</i>                                    |
| <b>Melting point</b>                           | <i>Not Applicable</i>                                    |
| <b>Boiling Point</b>                           | >=281 °F                                                 |
| <b>Flash Point</b>                             | 108.00 °F [Test Method: Tagliabue Closed Cup]            |
| <b>Evaporation rate</b>                        | <=0.04 [Ref Std: BUOAC=1]                                |
| <b>Flammability (solid, gas)</b>               | Not Applicable                                           |
| <b>Flammable Limits(LEL)</b>                   | 1 % volume                                               |
| <b>Flammable Limits(UEL)</b>                   | 8.6 % volume                                             |
| <b>Vapor Pressure</b>                          | <=5.1 mmHg [@ 20 °C]                                     |
| <b>Vapor Density</b>                           | <i>No Data Available</i>                                 |
| <b>Density</b>                                 | 1.02 g/ml                                                |
| <b>Specific Gravity</b>                        | 1.02 [Ref Std: WATER=1]                                  |
| <b>Solubility In Water</b>                     | <i>No Data Available</i>                                 |
| <b>Solubility- non-water</b>                   | <i>No Data Available</i>                                 |
| <b>Partition coefficient: n-octanol/ water</b> | <i>No Data Available</i>                                 |
| <b>Autoignition temperature</b>                | <i>No Data Available</i>                                 |
| <b>Decomposition temperature</b>               | <i>No Data Available</i>                                 |
| <b>Viscosity</b>                               | 1,000 - 1,200 centipoise                                 |
| <b>Volatile Organic Compounds</b>              | Approximately 638 g/l [Details: CONDITIONS: As packaged] |
| <b>Percent volatile</b>                        | 60 - 70 % weight                                         |
| <b>VOC Less H2O &amp; Exempt Solvents</b>      | <i>No Data Available</i>                                 |

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

This material may be reactive with certain agents under certain conditions - see the remaining headings in this section.

### 10.2. Chemical stability

Stable.

### 10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

### 10.4. Conditions to avoid

Sparks and/or flames

### 10.5. Incompatible materials

Strong acids  
Strong oxidizing agents

#### 10.6. Hazardous decomposition products

##### Substance

None known.

##### Condition

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 labeling, 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:**

Mild Skin Irritation: Signs/symptoms may include localized redness, swelling, itching, and dryness. Allergic Skin Reaction (non-photo induced): Signs/symptoms may include redness, swelling, blistering, and itching.

##### **Eye Contact:**

Severe Eye Irritation: Signs/symptoms may include significant redness, swelling, pain, tearing, cloudy appearance of the cornea, and impaired vision.

##### **Ingestion:**

Gastrointestinal Irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea.

#### **Additional Health Effects:**

##### **Reproductive/Developmental Toxicity:**

Contains a chemical or chemicals which can cause birth defects or other reproductive harm.

##### **Carcinogenicity:**

Contains a chemical or chemicals which can cause cancer.

| <b>Ingredient</b> | <b>CAS No.</b> | <b>Class Description</b>      | <b>Regulation</b>                           |
|-------------------|----------------|-------------------------------|---------------------------------------------|
| Ethylbenzene      | 100-41-4       | Grp. 2B: Possible human carc. | International Agency for Research on Cancer |
| Titanium dioxide  | 13463-67-7     | Grp. 2B: Possible human carc. | International Agency for Research on Cancer |

#### **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                                | Dermal                         |         | No data available; calculated ATE > 5,000 mg/kg |
| Overall product                                | Inhalation-Vapor(4 hr)         |         | No data available; calculated ATE > 50 mg/l     |
| Overall product                                | Ingestion                      |         | No data available; calculated ATE > 5,000 mg/kg |
| Dipropylene glycol methyl ether acetate        | Dermal                         | Rat     | LD50 > 2,000 mg/kg                              |
| Dipropylene glycol methyl ether acetate        | Inhalation-Dust/Mist (4 hours) | Rat     | LC50 > 5.7 mg/l                                 |
| Dipropylene glycol methyl ether acetate        | Ingestion                      | Rat     | LD50 > 5,000 mg/kg                              |
| Butyl methacrylate-methyl methacrylate polymer | Dermal                         | Rabbit  | LD50 > 3,000 mg/kg                              |
| Butyl methacrylate-methyl methacrylate polymer | Ingestion                      | Rat     | LD50 > 5,000 mg/kg                              |
| 1-Methoxy-2-propyl acetate                     | Dermal                         | Rabbit  | LD50 > 5,000 mg/kg                              |
| 1-Methoxy-2-propyl acetate                     | Inhalation-Vapor (4 hours)     | Rat     | LC50 > 28.8 mg/l                                |
| 1-Methoxy-2-propyl acetate                     | Ingestion                      | Rat     | LD50 8,532 mg/kg                                |
| Cyclohexanone                                  | Dermal                         | Rabbit  | LD50 >794, <3160 mg/kg                          |
| Cyclohexanone                                  | Inhalation-Vapor (4 hours)     | Rat     | LC50 > 6.2 mg/l                                 |
| Cyclohexanone                                  | Ingestion                      | Rat     | LD50 1,296 mg/kg                                |
| Titanium dioxide                               | Dermal                         | Rabbit  | LD50 > 10,000 mg/kg                             |
| Titanium dioxide                               | Inhalation-Dust/Mist (4 hours) | Rat     | LC50 > 6.82 mg/l                                |
| Titanium dioxide                               | Ingestion                      | Rat     | LD50 > 10,000 mg/kg                             |
| Toluene                                        | Dermal                         | Rat     | LD50 12,000 mg/kg                               |
| Toluene                                        | Inhalation-Vapor (4 hours)     | Rat     | LC50 30 mg/l                                    |
| Toluene                                        | Ingestion                      | Rat     | LD50 5,550 mg/kg                                |
| Ethylbenzene                                   | Dermal                         | Rabbit  | LD50 15,433 mg/kg                               |
| Ethylbenzene                                   | Inhalation-Vapor (4 hours)     | Rat     | LC50 17.4 mg/l                                  |
| Ethylbenzene                                   | Ingestion                      | Rat     | LD50 4,769 mg/kg                                |
| N-Butyl methacrylate                           | Dermal                         | Rabbit  | LD50 > 2,000 mg/kg                              |
| N-Butyl methacrylate                           | Inhalation-Dust/Mist (4 hours) | Rat     | LC50 > 27 mg/l                                  |
| N-Butyl methacrylate                           | Ingestion                      | Rat     | LD50 > 2,000 mg/kg                              |

ATE = acute toxicity estimate

**Skin Corrosion/Irritation**

| Name                                           | Species | Value                     |
|------------------------------------------------|---------|---------------------------|
| Dipropylene glycol methyl ether acetate        | Rabbit  | No significant irritation |
| Butyl methacrylate-methyl methacrylate polymer | Rabbit  | Minimal irritation        |
| 1-Methoxy-2-propyl acetate                     | Rabbit  | No significant irritation |
| Cyclohexanone                                  | Rabbit  | Irritant                  |
| Titanium dioxide                               | Rabbit  | No significant irritation |
| Toluene                                        | Rabbit  | Irritant                  |
| Ethylbenzene                                   | Rabbit  | Mild irritant             |
| N-Butyl methacrylate                           | Rabbit  | Irritant                  |

**Serious Eye Damage/Irritation**

| Name                                           | Species | Value                     |
|------------------------------------------------|---------|---------------------------|
| Dipropylene glycol methyl ether acetate        | Rabbit  | No significant irritation |
| Butyl methacrylate-methyl methacrylate polymer | Rabbit  | Moderate irritant         |
| 1-Methoxy-2-propyl acetate                     | Rabbit  | Mild irritant             |
| Cyclohexanone                                  | Rabbit  | Severe irritant           |
| Titanium dioxide                               | Rabbit  | No significant irritation |
| Toluene                                        | Rabbit  | Moderate irritant         |
| Ethylbenzene                                   | Rabbit  | Moderate irritant         |

|                      |        |               |
|----------------------|--------|---------------|
| N-Butyl methacrylate | Rabbit | Mild irritant |
|----------------------|--------|---------------|

**Skin Sensitization**

| Name                                    | Species          | Value           |
|-----------------------------------------|------------------|-----------------|
| Dipropylene glycol methyl ether acetate | Guinea pig       | Not sensitizing |
| 1-Methoxy-2-propyl acetate              | Guinea pig       | Not sensitizing |
| Cyclohexanone                           | Guinea pig       | Not sensitizing |
| Titanium dioxide                        | Human and animal | Not sensitizing |
| Toluene                                 | Guinea pig       | Not sensitizing |
| Ethylbenzene                            | Human            | Not sensitizing |
| N-Butyl methacrylate                    | Guinea pig       | Sensitizing     |

**Respiratory Sensitization**

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

**Germ Cell Mutagenicity**

| Name                                    | Route    | Value                                                                        |
|-----------------------------------------|----------|------------------------------------------------------------------------------|
| Dipropylene glycol methyl ether acetate | In Vitro | Not mutagenic                                                                |
| Dipropylene glycol methyl ether acetate | In vivo  | Not mutagenic                                                                |
| 1-Methoxy-2-propyl acetate              | In Vitro | Not mutagenic                                                                |
| Cyclohexanone                           | In vivo  | Not mutagenic                                                                |
| Cyclohexanone                           | In Vitro | Some positive data exist, but the data are not sufficient for classification |
| Titanium dioxide                        | In Vitro | Not mutagenic                                                                |
| Titanium dioxide                        | In vivo  | Not mutagenic                                                                |
| Toluene                                 | In Vitro | Not mutagenic                                                                |
| Toluene                                 | In vivo  | Not mutagenic                                                                |
| Ethylbenzene                            | In vivo  | Not mutagenic                                                                |
| Ethylbenzene                            | In Vitro | Some positive data exist, but the data are not sufficient for classification |
| N-Butyl methacrylate                    | In Vitro | Not mutagenic                                                                |
| N-Butyl methacrylate                    | In vivo  | Not mutagenic                                                                |

**Carcinogenicity**

| Name             | Route      | Species                 | Value                                                                        |
|------------------|------------|-------------------------|------------------------------------------------------------------------------|
| Cyclohexanone    | Ingestion  | Multiple animal species | Some positive data exist, but the data are not sufficient for classification |
| Titanium dioxide | Ingestion  | Multiple animal species | Not carcinogenic                                                             |
| Titanium dioxide | Inhalation | Rat                     | Carcinogenic                                                                 |
| Toluene          | Dermal     | Mouse                   | Some positive data exist, but the data are not sufficient for classification |
| Toluene          | Ingestion  | Rat                     | Some positive data exist, but the data are not sufficient for classification |
| Toluene          | Inhalation | Mouse                   | Some positive data exist, but the data are not sufficient for classification |
| Ethylbenzene     | Inhalation | Multiple animal species | Carcinogenic                                                                 |

**Reproductive Toxicity****Reproductive and/or Developmental Effects**

| Name | Route | Value | Species | Test Result | Exposure |
|------|-------|-------|---------|-------------|----------|
|------|-------|-------|---------|-------------|----------|

|                                         |            |                                                                                                  |        |                       | <b>Duration</b>              |
|-----------------------------------------|------------|--------------------------------------------------------------------------------------------------|--------|-----------------------|------------------------------|
| Dipropylene glycol methyl ether acetate | Ingestion  | Not toxic to male reproduction                                                                   | Rat    | NOAEL 1,000 mg/kg/day | 4 weeks                      |
| 1-Methoxy-2-propyl acetate              | Ingestion  | Not toxic to female reproduction                                                                 | Rat    | NOAEL 1,000 mg/kg/day | premating & during gestation |
| 1-Methoxy-2-propyl acetate              | Ingestion  | Not toxic to male reproduction                                                                   | Rat    | NOAEL 1,000 mg/kg/day | premating & during gestation |
| 1-Methoxy-2-propyl acetate              | Ingestion  | Not toxic to development                                                                         | Rat    | NOAEL 1,000 mg/kg/day | premating & during gestation |
| 1-Methoxy-2-propyl acetate              | Inhalation | Not toxic to development                                                                         | Rat    | NOAEL 21.6 mg/l       | during organogenesis         |
| Cyclohexanone                           | Inhalation | Not toxic to female reproduction                                                                 | Rat    | NOAEL 4 mg/l          | 2 generation                 |
| Cyclohexanone                           | Inhalation | Some positive male reproductive data exist, but the data are not sufficient for classification   | Rat    | NOAEL 2 mg/l          | 2 generation                 |
| Cyclohexanone                           | Ingestion  | Some positive developmental data exist, but the data are not sufficient for classification       | Mouse  | LOAEL 1,100 mg/kg/day | during organogenesis         |
| Cyclohexanone                           | Inhalation | Some positive developmental data exist, but the data are not sufficient for classification       | Rat    | NOAEL 2 mg/l          | 2 generation                 |
| Toluene                                 | Inhalation | Some positive female reproductive data exist, but the data are not sufficient for classification | Human  | NOAEL Not available   | occupational exposure        |
| Toluene                                 | Inhalation | Some positive male reproductive data exist, but the data are not sufficient for classification   | Rat    | NOAEL 2.3 mg/l        | 1 generation                 |
| Toluene                                 | Ingestion  | Toxic to development                                                                             | Rat    | LOAEL 520 mg/kg/day   | during gestation             |
| Toluene                                 | Inhalation | Toxic to development                                                                             | Human  | NOAEL Not available   | poisoning and/or abuse       |
| Ethylbenzene                            | Inhalation | Some positive developmental data exist, but the data are not sufficient for classification       | Rat    | NOAEL 4.3 mg/l        | premating & during gestation |
| N-Butyl methacrylate                    | Inhalation | Not toxic to female reproduction                                                                 | Rat    | NOAEL 11 mg/l         | 28 days                      |
| N-Butyl methacrylate                    | Ingestion  | Not toxic to male reproduction                                                                   | Rat    | NOAEL 1,000 mg/kg/day | 44 days                      |
| N-Butyl methacrylate                    | Inhalation | Not toxic to male reproduction                                                                   | Rat    | NOAEL 11 mg/l         | 28 days                      |
| N-Butyl methacrylate                    | Ingestion  | Some positive female reproductive data exist, but the data are not sufficient for classification | Rat    | NOAEL 300 mg/kg/day   | premating & during gestation |
| N-Butyl methacrylate                    | Ingestion  | Some positive developmental data exist, but the data are not sufficient for classification       | Rabbit | NOAEL 300 mg/kg/day   | during gestation             |
| N-Butyl methacrylate                    | Inhalation | Some positive developmental data exist, but the data are not sufficient for classification       | Rat    | NOAEL 1.8 mg/l        | during gestation             |

### Target Organ(s)

#### Specific Target Organ Toxicity - single exposure

| Name                       | Route      | Target Organ(s)                   | Value                                                                        | Species    | Test Result         | Exposure Duration |
|----------------------------|------------|-----------------------------------|------------------------------------------------------------------------------|------------|---------------------|-------------------|
| 1-Methoxy-2-propyl acetate | Inhalation | respiratory irritation            | Some positive data exist, but the data are not sufficient for classification |            | NOAEL Not available |                   |
| Cyclohexanone              | Inhalation | central nervous system depression | May cause drowsiness or dizziness                                            | Guinea pig | LOAEL 16.1 mg/l     | 6 hours           |

|                      |            |                                   |                                                                              |                  |                     |                        |
|----------------------|------------|-----------------------------------|------------------------------------------------------------------------------|------------------|---------------------|------------------------|
| Cyclohexanone        | Inhalation | respiratory irritation            | Some positive data exist, but the data are not sufficient for classification | Human            | NOAEL Not available |                        |
| Toluene              | Inhalation | central nervous system depression | May cause drowsiness or dizziness                                            | Human            | NOAEL Not available |                        |
| Toluene              | Inhalation | respiratory irritation            | Some positive data exist, but the data are not sufficient for classification | Human            | NOAEL Not available |                        |
| Toluene              | Inhalation | immune system                     | Some positive data exist, but the data are not sufficient for classification | Mouse            | NOAEL 0.004 mg/l    | 3 hours                |
| Toluene              | Ingestion  | central nervous system depression | May cause drowsiness or dizziness                                            | Human            | NOAEL Not available | poisoning and/or abuse |
| Ethylbenzene         | Inhalation | central nervous system depression | May cause drowsiness or dizziness                                            | Human            | NOAEL Not available |                        |
| Ethylbenzene         | Inhalation | respiratory irritation            | Some positive data exist, but the data are not sufficient for classification | Human and animal | NOAEL Not available |                        |
| N-Butyl methacrylate | Inhalation | respiratory irritation            | May cause respiratory irritation                                             |                  | NOAEL Not available |                        |

**Specific Target Organ Toxicity - repeated exposure**

| Name                                    | Route      | Target Organ(s)                                                         | Value                                                                        | Species                 | Test Result           | Exposure Duration      |
|-----------------------------------------|------------|-------------------------------------------------------------------------|------------------------------------------------------------------------------|-------------------------|-----------------------|------------------------|
| Dipropylene glycol methyl ether acetate | Ingestion  | liver                                                                   | Some positive data exist, but the data are not sufficient for classification | Rat                     | NOAEL 1,000 mg/kg/day | 4 weeks                |
| Dipropylene glycol methyl ether acetate | Ingestion  | heart   endocrine system   hematopoietic system   kidney and/or bladder | All data are negative                                                        | Rat                     | NOAEL 1,000 mg/kg/day | 4 weeks                |
| 1-Methoxy-2-propyl acetate              | Inhalation | kidney and/or bladder                                                   | Some positive data exist, but the data are not sufficient for classification | Rat                     | NOAEL 16.2 mg/l       | 9 days                 |
| 1-Methoxy-2-propyl acetate              | Inhalation | olfactory system                                                        | Some positive data exist, but the data are not sufficient for classification | Mouse                   | LOAEL 1.62 mg/l       | 9 days                 |
| 1-Methoxy-2-propyl acetate              | Inhalation | blood                                                                   | All data are negative                                                        | Multiple animal species | NOAEL 16.2 mg/l       | 9 days                 |
| 1-Methoxy-2-propyl acetate              | Ingestion  | endocrine system                                                        | Some positive data exist, but the data are not sufficient for classification | Rat                     | NOAEL 1,000 mg/kg/day | 44 days                |
| Cyclohexanone                           | Inhalation | liver   kidney and/or bladder                                           | Some positive data exist, but the data are not sufficient for classification | Rabbit                  | NOAEL 0.76 mg/l       | 50 days                |
| Cyclohexanone                           | Ingestion  | liver                                                                   | Some positive data exist, but the data are not sufficient for classification | Mouse                   | NOAEL 4,800 mg/kg/day | 90 days                |
| Titanium dioxide                        | Inhalation | respiratory system                                                      | Some positive data exist, but the data are not sufficient for classification | Rat                     | LOAEL 0.010 mg/l      | 2 years                |
| Titanium dioxide                        | Inhalation | pulmonary fibrosis                                                      | All data are negative                                                        | Human                   | NOAEL Not available   | occupational exposure  |
| Toluene                                 | Inhalation | auditory system   nervous system   eyes   olfactory system              | Causes damage to organs through prolonged or repeated exposure               | Human                   | NOAEL Not available   | poisoning and/or abuse |
| Toluene                                 | Inhalation | respiratory system                                                      | Some positive data exist, but the data are not sufficient for classification | Rat                     | LOAEL 2.3 mg/l        | 15 months              |
| Toluene                                 | Inhalation | heart   liver   kidney and/or bladder                                   | Some positive data exist, but the data are not sufficient for classification | Rat                     | NOAEL 11.3 mg/l       | 15 weeks               |
| Toluene                                 | Inhalation | endocrine system                                                        | Some positive data exist, but the data are not sufficient for classification | Rat                     | NOAEL 1.1 mg/l        | 4 weeks                |

|                      |            |                                                                                               |                                                                              |                         |                       |                       |
|----------------------|------------|-----------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|-------------------------|-----------------------|-----------------------|
| Toluene              | Inhalation | immune system                                                                                 | Some positive data exist, but the data are not sufficient for classification | Mouse                   | NOAEL Not available   | 20 days               |
| Toluene              | Inhalation | bone, teeth, nails, and/or hair                                                               | Some positive data exist, but the data are not sufficient for classification | Mouse                   | NOAEL 1.1 mg/l        | 8 weeks               |
| Toluene              | Inhalation | hematopoietic system   vascular system                                                        | Some positive data exist, but the data are not sufficient for classification | Human                   | NOAEL Not available   | occupational exposure |
| Toluene              | Ingestion  | nervous system                                                                                | Some positive data exist, but the data are not sufficient for classification | Rat                     | NOAEL 625 mg/kg/day   | 13 weeks              |
| Toluene              | Ingestion  | heart                                                                                         | Some positive data exist, but the data are not sufficient for classification | Rat                     | NOAEL 2,500 mg/kg/day | 13 weeks              |
| Toluene              | Ingestion  | liver   kidney and/or bladder                                                                 | Some positive data exist, but the data are not sufficient for classification | Multiple animal species | NOAEL 2,500 mg/kg/day | 13 weeks              |
| Toluene              | Ingestion  | hematopoietic system                                                                          | Some positive data exist, but the data are not sufficient for classification | Mouse                   | NOAEL 600 mg/kg/day   | 14 days               |
| Toluene              | Ingestion  | endocrine system                                                                              | Some positive data exist, but the data are not sufficient for classification | Mouse                   | NOAEL 105 mg/kg/day   | 28 days               |
| Toluene              | Ingestion  | immune system                                                                                 | Some positive data exist, but the data are not sufficient for classification | Mouse                   | NOAEL 105 mg/kg/day   | 4 weeks               |
| Ethylbenzene         | Inhalation | kidney and/or bladder                                                                         | Some positive data exist, but the data are not sufficient for classification | Rat                     | NOAEL 1.1 mg/l        | 2 years               |
| Ethylbenzene         | Inhalation | liver                                                                                         | Some positive data exist, but the data are not sufficient for classification | Mouse                   | NOAEL 1.1 mg/l        | 103 weeks             |
| Ethylbenzene         | Inhalation | hematopoietic system                                                                          | Some positive data exist, but the data are not sufficient for classification | Rat                     | NOAEL 3.4 mg/l        | 28 days               |
| Ethylbenzene         | Inhalation | auditory system                                                                               | Some positive data exist, but the data are not sufficient for classification | Rat                     | NOAEL 2.4 mg/l        | 5 days                |
| Ethylbenzene         | Inhalation | endocrine system                                                                              | Some positive data exist, but the data are not sufficient for classification | Mouse                   | NOAEL 3.3 mg/l        | 103 weeks             |
| Ethylbenzene         | Inhalation | bone, teeth, nails, and/or hair   muscles                                                     | All data are negative                                                        | Multiple animal species | NOAEL 4.2 mg/l        | 90 days               |
| Ethylbenzene         | Inhalation | heart   immune system   respiratory system                                                    | All data are negative                                                        | Multiple animal species | NOAEL 3.3 mg/l        | 2 years               |
| Ethylbenzene         | Ingestion  | liver   kidney and/or bladder                                                                 | Some positive data exist, but the data are not sufficient for classification | Rat                     | NOAEL 680 mg/kg/day   | 6 months              |
| N-Butyl methacrylate | Inhalation | kidney and/or bladder                                                                         | Some positive data exist, but the data are not sufficient for classification | Rat                     | NOAEL 11 mg/l         | 28 days               |
| N-Butyl methacrylate | Inhalation | olfactory system                                                                              | Some positive data exist, but the data are not sufficient for classification | Rat                     | NOAEL 1.8 mg/l        | 28 days               |
| N-Butyl methacrylate | Inhalation | heart   endocrine system   hematopoietic system   liver   nervous system   respiratory system | All data are negative                                                        | Rat                     | NOAEL 11 mg/l         | 28 days               |
| N-Butyl methacrylate | Ingestion  | olfactory system                                                                              | Some positive data exist, but the data are not sufficient for classification | Rat                     | NOAEL 60 mg/kg/day    | 90 days               |
| N-Butyl methacrylate | Ingestion  | endocrine system   hematopoietic                                                              | Some positive data exist, but the data are not sufficient for                | Rat                     | NOAEL 360 mg/kg/day   | 90 days               |

|                      |           |                                                                  |                       |     |                        |         |
|----------------------|-----------|------------------------------------------------------------------|-----------------------|-----|------------------------|---------|
|                      |           | system   liver  <br>nervous system  <br>kidney and/or<br>bladder | classification        |     |                        |         |
| N-Butyl methacrylate | Ingestion | heart   immune<br>system                                         | All data are negative | Rat | NOAEL 360<br>mg/kg/day | 90 days |

**Aspiration Hazard**

| Name         | Value             |
|--------------|-------------------|
| Toluene      | Aspiration hazard |
| Ethylbenzene | Aspiration hazard |

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****Ecotoxicological information**

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

**Chemical fate information**

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

**SECTION 13: Disposal considerations****13.1. Disposal methods**

Dispose of contents/ container in accordance with the local/regional/national/international regulations.

Incinerate in a permitted waste incineration 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.

**EPA Hazardous Waste Number (RCRA):** D001 (Ignitable)

**SECTION 14: Transport Information**

For Transport Information, please visit <http://3M.com/Transportinfo> or call 1-800-364-3577 or 651-737-6501.

**SECTION 15: Regulatory information****15.1. US Federal Regulations**

Contact 3M for more information.

**311/312 Hazard Categories:**

Fire Hazard - Yes    Pressure Hazard - No    Reactivity Hazard - No    Immediate Hazard - Yes    Delayed Hazard - Yes

**Section 313 Toxic Chemicals subject to the reporting requirements of that section and 40 CFR part 372 (EPCRA):**

**Ingredient**

**C.A.S. No**

**% by Wt**

Ethylbenzene

100-41-4

&lt; 0.3

## 15.2. State Regulations

Contact 3M for more information.

## 15.3. Chemical Inventories

The components of this product are in compliance with the chemical notification requirements of TSCA.

Contact 3M for more information.

## 15.4. International Regulations

Contact 3M for more information.

**This SDS has been prepared to meet the U.S. OSHA Hazard Communication Standard, 29 CFR 1910.1200.**

## SECTION 16: Other information

### NFPA Hazard Classification

**Health:** 2 **Flammability:** 2 **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.

**Document Group:** 32-1607-4  
**Issue Date:** 04/24/15

**Version Number:** 4.00  
**Supersedes Date:** 09/22/14

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