



Request for Information (RFI) 22582

**Solvent Recycling Unit**

IOWA DEPARTMENT OF TRANSPORTATION  
Finance Bureau, Purchasing Section

Information must be received no later than

**August 14, 2019**

1 p.m. Central Time

*For information about the notice  
Interested persons shall contact only:*

Jean Gustafson  
800 Lincoln Way  
Ames, Iowa 50010  
Phone: 515-239-1173  
Fax: 515-239-1538  
E-mail: [jean.gustafson@iowadot.us](mailto:jean.gustafson@iowadot.us)

## Section 1.0 Purpose

### 1.1 Purpose for the RFI

The intended purpose of the Request for Information (RFI) is to allow interested vendors an opportunity to present information of availability of a product or service to meet the Iowa DOT need as described below.

**This is not a request for bid (RFB) where *bidders* respond with a specific solution to Iowa DOT specifications. An RFB process is a separate process with further defined requirements.**

### 1.2 Relevant Dates

Issuance of RFI – July 29, 2019

Submittal of questions by vendors (no later than) – August 1, 2019

Iowa DOT responses to vendor questions deadline (no later than) – August 5, 2019

RFI response by vendor deadline – August 14, 2019

### 1.3 Overview

The Iowa DOT is seeking information on a solvent recycling unit that is available in the market place for cleaning screens used in the painting of highway signs.

Previous unit used was a CBG Technologies model S 600 TechnoClean Solvent Recycling Unit.

## Section 2.0 Definitions

Iowa DOT: The Iowa Department of Transportation

RFI: Request for Information

SDS: Safety Data Sheets

## Section 3.0 RFI Responses

### 3.1 Response

Responders are requested to submit a response to this request for information as described herein. Responses to this RFI will not disqualify Responders to participate in any formal Request for Bid (RFB) process if Iowa DOT issues a bid opportunity for this request at a future date.

### 3.2 Submittal instructions

Responses to the RFI shall be submitted electronically. A signed transmittal letter on the Responder's letterhead shall be in the electronic document including all company and contact information.

No award shall be made for the information received as a response to this RFI. The RFI is for information gathering purposes only. All information provided by Responders shall be at no cost and without any obligation to the Iowa DOT.

### **3.3 Questions and Requests for Clarification**

Responders interested in this RFI may submit questions or requests for clarification within the timeline listed in Section 1.2. All questions or requests must be submitted by E-mail to Jean Gustafson listed on the RFI cover page. The Iowa DOT will respond to submitted questions as timely and as appropriately as possible and in accordance to the outlined timeline in Section 1.2

### **3.4 Review of RFI responses**

RFI responses will be reviewed by the requesting Iowa DOT business unit and Purchasing Section.

### **3.5 Copyright**

By submitting a response, the Responder's are agreeing to allow the Iowa DOT to copy the responses for purposes of sharing the information within the agency.

### **3.6 RFI ownership**

All submitted responses are subject to Iowa Code Chapter 22. Responses become the property of the Iowa DOT.

### **3.7 Responder Responsibilities**

The responder is responsible to provide the Iowa DOT with detailed specifications and documentation of their capabilities to meet the Iowa DOT requirements listed in the specifications below.

## **Section 4.0 Requirements**

4.1 The Iowa DOT is seeking information on a Solvent Recycling Unit in the market place that will meet the Iowa DOT's need.

- Solvent recycling unit to reclaim and re-use dirty solvent generated in the cleaning of screens used to make highway signs.
- Recycling unit must be able to recycle EasiSolve brand solvent contaminated with 3M Process Color 885N Black. SDS's are attached for both products.
- Must meet OSHA requirements
- Air-cooled; no water hook-up or special ventilation required
- Include the following information with your response:
  - installation and training information
  - warranty information
  - annual maintenance contracts that are available

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier

Product name : EasiSolv 120 Solvent Cleaner  
 Product form : Mixture

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : Ink remover

#### 1.3. Details of the supplier of the safety data sheet

Easiway Systems, Inc.  
 540 S. River Street  
 Delano, MN 55328  
 Phone: 1-763-972-6306  
 Web: www.easiway.com  
 E-Mail: sales@easiway.com

#### 1.4. Emergency telephone number

(800)-424-9300 CHEMTREC USA & CANADA  
 +1 (703) 741-5970 INTERNATIONAL

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

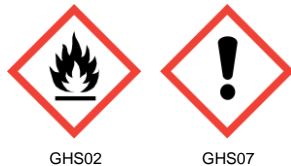
##### GHS-US classification

Flam. Liq. 3 H226  
 Skin Sens. 1 H317

#### 2.2. Label elements

##### GHS-US labelling

Hazard pictograms (GHS-US):



Signal word (GHS-US): **Danger**

Hazard statements (GHS-US): H226 - Flammable liquid and vapor; H317 - May cause an allergic skin reaction

Precautionary statements (GHS-US): P210 - Keep away from open flames, heat. - No smoking; P233 - Keep container tightly closed; P240 - Ground/bond container and receiving equipment; P241 - Use explosion-proof ventilating equipment; P242 - Use only non-sparking tools; P243 - Take precautionary measures against static discharge; P260 - Do not breathe mist, vapors; P261 - Avoid breathing mist, vapors; P264 - Wash hands, forearms and face thoroughly after handling; P280 - Wear eye protection, face protection, protective clothing, protective gloves; P301+P330+P331 - If swallowed: rinse mouth. Do NOT induce vomiting; P302+P352 - If on skin: Wash with plenty of water; P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower; P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing; 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 doctor, a POISON CENTER; P321 - Specific treatment (see first aid instructions on this label); P333+P313 - If skin irritation or rash occurs: Get medical advice/attention; P362+P364 - Take off contaminated clothing and wash it before reuse; P363 - Wash contaminated clothing before reuse; P370+P378 - In case of fire: Use foam, carbon dioxide (CO2), dry extinguishing powder, sand to extinguish; P403+P235 - Store in a well-ventilated place. Keep cool; P501 - Dispose of contents/container to a facility that complies with all local, state, regional, federal, national, and international regulations.

#### 2.3. Other hazards

No additional information available

#### 2.4. Unknown acute toxicity (GHS US)

No data available

### SECTION 3: Composition/information on ingredients

#### 3.1. Substance

Not applicable

#### 3.2. Mixture

| Name                                      | Product identifier   | %        |
|---|----------------------|----------|
| Propylene glycol monomethyl ether acetate | (CAS No) 108-65-6    | 60 - 100 |
| 2-Propanol, 1-methoxy-, propanoate        | (CAS No) 148462-57-1 | 7 - 13   |
| D-Limonene                                | (CAS No) 5989-27-5   | 1 - 5    |
| Isobutyl isobutyrate                      | (CAS No) 97-85-8     | 1 - 5    |

# EasiSolv 120 Solvent Cleaner

## Safety Data Sheet

Prepared according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

- First-aid measures general : If concerned, get medical attention/advice. Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before re-use. Never give anything to an unconscious person.
- First-aid measures after inhalation : IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if breathing is affected. If breathing is difficult, supply oxygen.
- First-aid measures after skin contact : IF ON SKIN (or clothing): Remove affected clothing and wash all exposed skin with water. If irritation develops or persists, get medical attention.
- First-aid measures after eye contact : IF IN EYES: Immediately flush with plenty of water for at least 15 minutes. Remove contact lenses if present and easy to do so. If pain, blinking, or irritation develops or persists, get medical attention. Continue rinsing.
- First-aid measures after ingestion : IF SWALLOWED: rinse mouth thoroughly. Do not induce vomiting without advice from poison control center or medical professional. Get medical attention immediately.

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

- Symptoms/injuries : May cause an allergic skin reaction. May damage fertility or the unborn child.
- Symptoms/injuries after inhalation : May cause respiratory irritation.
- Symptoms/injuries after skin contact : May cause an allergic skin reaction.
- Symptoms/injuries after eye contact : Direct contact with the eyes is likely to be irritating.
- Symptoms/injuries after ingestion : May cause gastrointestinal irritation.
- Chronic symptoms : May cause an allergic skin reaction. May damage fertility. May damage the unborn child.

#### 4.3. Indication of any immediate medical attention and special treatment needed

No additional information available.

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

- Suitable extinguishing media : Foam. Carbon dioxide. Dry powder. Water spray. Sand.
- Unsuitable extinguishing media : None known.

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

- Fire hazard : Flammable liquid and vapour.
- Explosion hazard : Heating may cause an explosion.
- Reactivity : No dangerous reactions known under normal conditions of use.

#### 5.3. Advice for firefighters

- Precautionary measures fire : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Do not dispose of fire-fighting water in the environment.
- Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

- General measures : Ventilate area. Keep upwind. Spill should be handled by trained clean-up crews properly equipped with respiratory equipment and full chemical protective gear (see Section 8).

##### 6.1.1. For non-emergency personnel

- Protective equipment : Wear Protective equipment as described in Section 8.
- Emergency procedures : Evacuate unnecessary personnel.

##### 6.1.2. For emergency responders

- Protective equipment : Wear suitable protective clothing, gloves and eye or face protection. Approved supplied-air respirator, in case of emergency.

#### 6.2. Environmental precautions

Prevent entry to untreated waste streams and public waters. Notify authorities if liquid enters untreated waste streams and or public waters. Avoid release to the environment.

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

- For containment : Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.
- Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Sweep or shovel spills into appropriate container for disposal. This material and its container must be disposed of in a safe way, and as per local legislation.

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### 6.4. Reference to other sections

See Sections 8 and 13.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling : Do not handle until all safety precautions have been read and understood. Keep away from sources of ignition - No smoking. Avoid breathing vapours, mist. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

### 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep the container tightly closed. Store in a dry, cool and well-ventilated place. Avoid temperature extremes.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

| <b>D-Limonene (5989-27-5)</b>                               |                      |
|---|----------------------|
| Remark (ACGIH)  | OELs not established |
| Remark (OSHA)   | OELs not established |
| <b>2-Propanol, 1-methoxy-, propanoate (148462-57-1)</b>     |                      |
| Remark (ACGIH)  | OELs not established |
| Remark (OSHA)   | OELs not established |
| <b>Isobutyl isobutyrate (97-85-8)</b>                       |                      |
| Remark (ACGIH)  | OELs not established |
| Remark (OSHA)   | OELs not established |
| <b>Propylene glycol monomethyl ether acetate (108-65-6)</b> |                      |
| Remark (ACGIH)  | OELs not established |
| Remark (OSHA)   | OELs not established |

### 8.2. Exposure controls

Appropriate engineering controls : Provide adequate general and local exhaust ventilation. Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Use explosion-proof equipment with flammable materials. Ensure adequate ventilation, especially in confined areas.

Personal protective equipment :



Eye protection : Wear safety glasses with side shields (or goggles).

Skin and body protection : Wear impervious gloves to prevent contact with the skin. Wear protective gear as needed – apron, suit, boots.

Respiratory protection : NIOSH-approved (or equivalent) respirators may be necessary if airborne concentrations are expected to exceed exposure limits.

Other Protective Equipment : Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

## SECTION 9: Physical and chemical properties

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

Physical state : Liquid  
Color : Clear.  
Odor : Ether-like.  
Odor Threshold : No data available  
pH : Neutral  
Relative evaporation rate (butylacetate=1) : No data available  
Melting point : No data available  
Freezing point : No data available  
Boiling point : > 140 °C (>284 °F)  
Flash point : 48 °C (118 °F) (Setaflash)  
Auto-ignition temperature : > 260 °C (> 500 °F)

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|                                  |   |
|----------------------------------|---|
| Decomposition temperature        | : No data available                       |
| Flammability (solid, gas)        | : No data available                       |
| Vapour pressure                  | : 3.6 mm Hg @ 20 °C (68 °F)               |
| Relative vapour density at 20 °C | : Heavier than air                        |
| Relative density                 | : 0.95 @ 20 °C (68 °F)                    |
| Solubility                       | : No data available                       |
| Log Pow                          | : No data available                       |
| Log Kow                          | : No data available                       |
| Viscosity, kinematic             | : No data available                       |
| Viscosity, dynamic               | : No data available                       |
| Explosive properties             | : No data available                       |
| Oxidising properties             | : No data available                       |
| Explosive limits                 | : 1.5 - 7 vol % Estimated @ 25 °C (77 °F) |

### 9.2. Other information

VOC content : 950 g/l (7.9 lbs/gallon) tested by EPA Method 24

## SECTION 10: Stability and reactivity

|  |   |
|--|---|
| 10.1. Reactivity                         | : No dangerous reactions known under normal conditions of use               |
| 10.2. Chemical stability                 | : Stable under recommended handling and storage conditions (see section 7). |
| 10.3. Possibility of hazardous reactions | : None known.   |
| 10.4. Conditions to avoid                | : None known.   |
| 10.5. Incompatible materials             | : Strong oxidizers.   |
| 10.6. Hazardous decomposition products   | : Thermal decomposition generates : Carbon oxides (CO, CO <sub>2</sub> ).   |

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity : Not classified

| EasiSolv 120 Solvent Cleaner                         |               |
|--|---------------|
| LD50 oral rat  | > 10000 mg/kg |
| LD50 dermal rabbit                                   | > 5000 mg/kg  |
| D-Limonene (5989-27-5)                               |               |
| LD50 oral rat  | 4400 mg/kg    |
| LD50 dermal rabbit                                   | > 2000 mg/kg  |
| Isobutyl isobutyrate (97-85-8)                       |               |
| LC50 inhalation rat (ppm)                            | 5000 ppm 6 h  |
| Propylene glycol monomethyl ether acetate (108-65-6) |               |
| LD50 oral rat  | 8532 mg/kg    |
| LD50 dermal rabbit                                   | > 5000 mg/kg  |

|                                   |  |
|-----------------------------------|--|
| Skin corrosion/irritation         | : May cause skin irritation. pH: Neutral |
| Serious eye damage/irritation     | : Not classified pH: Neutral             |
| Respiratory or skin sensitisation | : May cause an allergic skin reaction.   |
| Germ cell mutagenicity            | : Not classified                         |
| Carcinogenicity                   | : Not classified                         |

| D-Limonene (5989-27-5)                             |  |
|--|--|
| IARC group   | 3 - Not classifiable   |
| Reproductive toxicity                              | : Not classified   |
| Specific target organ toxicity (single exposure)   | : Not classified   |
| Specific target organ toxicity (repeated exposure) | : Not classified   |
| Aspiration hazard                                  | : Not classified   |
| Symptoms/injuries after inhalation                 | : May cause respiratory irritation.                              |
| Symptoms/injuries after skin contact               | : Highly corrosive to skin. May cause an allergic skin reaction. |
| Symptoms/injuries after eye contact                | : May cause serious eye damage.                                  |
| Symptoms/injuries after ingestion                  | : May cause gastrointestinal irritation.                         |
| Chronic symptoms                                   | : May cause an allergic skin reaction.                           |

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### SECTION 12: Ecological information

Ecology - general : No information available.

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

Waste treatment methods : Obtain the consent of pollution control authorities before discharging to wastewater treatment plants.

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations. Do not allow the product to be released into the environment.

### SECTION 14: Transport information

In accordance with DOT

**Not DOT regulated for domestic ground transportation unless greater than 119 gallons (450 liters).**

Transport document description : UN1993 Flammable liquids, n.o.s. (Contains: Propylene Glycol Methyl Ether Acetate, 2-Propanol, 1-methoxy-, propanoate; Citrus Terpenes), 3, III

UN-No.(DOT) : 1993

DOT NA no. : UN1993

Proper Shipping Name (DOT) : Flammable liquids, n.o.s.  
(Contains: 2-Propanol, 1-methoxy-, propanoate; Citrus Terpenes)

Department of Transportation (DOT) Hazard Classes : 3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120

Hazard labels (DOT) : 3 - Flammable and combustible liquid



Packing group (DOT) : III - Minor Danger

DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) : 60 L

DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) : 220 L

DOT Vessel Stowage Location : A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel.

Other information : No supplementary information available.

Transport by Sea : Not regulated for sea transportation.

Air transport : Not regulated for air transportation.

### SECTION 15: Regulatory information

#### 15.1. US Federal regulations

##### EasiSolv 120 Solvent Cleaner

All chemical substances in this product are listed in the EPA (Environment Protection Agency) TSCA (Toxic Substances Control Act) Inventory  
All the constituents of this preparation are registered in the EINECS inventory or in the ELINCS list

|                                     |  |
|-------------------------------------|--|
| SARA Section 311/312 Hazard Classes | Delayed (chronic) health hazard<br>Fire hazard |
|-------------------------------------|--|

#### 15.2. International regulations

No additional information available.

#### 15.3. US State regulations

##### California Proposition 65

This product does not contain any substances known to the state of California to cause cancer and/or reproductive harm

##### Isobutyl isobutyrate (97-85-8)

U.S. - New Jersey - Right to Know Hazardous Substance List



# EasiSolv 120 Solvent Cleaner

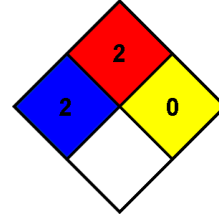
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### SECTION 16: Other information

Indication of changes : Revision 6.0: Sections: 1.4, 14  
Revision date : 11/08/2016  
Other information : Author: KRH.

NFPA health hazard: 2 - Intense or continued exposure could cause temporary incapacitation or possible residual injury unless prompt medical attention is given.  
NFPA fire hazard: 2 - Must be moderately heated or exposed to relatively high temperature before ignition can occur.  
NFPA reactivity: 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.  
NFPA specific hazard:



HMIS III Health: 2 - Temporary or minor injury may occur.  
HMIS III Flammability: 2 - Materials which must be moderately heated or exposed to high ambient temperatures before ignition will occur. Includes liquids having a flash point at or above 100 °F (38 °C) but below 200 °F (93 °C).  
HMIS III Physical: 0 - Materials that are normally stable, even under fire conditions, and will not react with water, polymerize, decompose, condense, or self-react. Non-explosives.  
HMIS III Personal Protection: H - Gloves. Protective goggles. Protective clothing. Insufficient ventilation: wear respiratory protection.

|                     |   |
|---------------------|---|
| Health              | 2 |
| Flammability        | 2 |
| Reactivity          | 0 |
| Personal Protection | H |

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product



## Safety Data Sheet

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|                        |           |                         |          |
|------------------------|-----------|-------------------------|----------|
| <b>Document Group:</b> | 20-3039-3 | <b>Version Number:</b>  | 12.00    |
| <b>Issue Date:</b>     | 05/28/19  | <b>Supersedes Date:</b> | 08/18/17 |

### SECTION 1: Identification

#### 1.1. Product identifier

3M™ Process Color 885N Black

#### Product Identification Numbers

42-0021-9015-7, 75-0301-3622-2  
7000030846

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

##### Recommended use

Ink

#### 1.3. Supplier's details

|                      |   |
|----------------------|---|
| <b>MANUFACTURER:</b> | 3M                                      |
| <b>DIVISION:</b>     | Transportation Safety 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 Corrosion/Irritation: Category 2.  
Skin Sensitizer: Category 1.  
Reproductive Toxicity: Category 1B.  
Carcinogenicity: Category 2.  
Specific Target Organ Toxicity (single exposure): Category 3.

#### 2.2. Label elements

##### Signal word

Danger

**Symbols**

Flame | Exclamation mark | Health Hazard |

**Pictograms****Hazard Statements**

Flammable liquid and vapor.

Causes serious eye irritation.

Causes skin irritation.

May cause an allergic skin reaction.

May cause drowsiness or dizziness.

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.

Avoid breathing dust/fume/gas/mist/vapors/spray.

Use only outdoors or in a well-ventilated area.

Wear protective gloves and eye/face protection.

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

Take off contaminated clothing and wash it before reuse.

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 container tightly closed.

Keep cool.

Store locked up.

**Disposal:**

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

43% of the mixture consists of ingredients of unknown acute inhalation toxicity.

### SECTION 3: Composition/information on ingredients

| Ingredient  | C.A.S. No.    | % by Wt                  |
|---|---------------|--------------------------|
| Heavy aromatic solvent naphtha (petroleum)                        | 64742-94-5    | 15 - 40 Trade Secret *   |
| Acrylic polymers  | Trade Secret* | 15 - 40 Trade Secret *   |
| Pine oil  | 8002-09-3     | 10 - 30 Trade Secret *   |
| 1-Methoxy-2-propyl acetate  | 108-65-6      | 5 - 10 Trade Secret *    |
| Cyclohexanone   | 108-94-1      | 5 - 10 Trade Secret *    |
| Vinyl polymer (New Jersey Trade Secret Registry # 04499600-5238P) | Trade Secret* | 3 - 7 Trade Secret *     |
| Carbon black  | 1333-86-4     | 1 - 5 Trade Secret *     |
| Light aromatic solvent naphtha (Petroleum)                        | 64742-95-6    | 1 - 5 Trade Secret *     |
| 1,2,4-Trimethylbenzene  | 95-63-6       | 0.5 - 1.5 Trade Secret * |
| (3',4'-Epoxy cyclohexylmethyl) 3,4-epoxycyclohexanecarboxylate    | 2386-87-0     | < 0.5 Trade Secret *     |
| N-Butyl methacrylate  | 97-88-1       | < 0.4 Trade Secret *     |
| Oils, orange  | 8008-57-9     | < 0.4 Trade Secret *     |
| Naphthalene   | 91-20-3       | < 0.3 Trade Secret *     |
| Terpenes and terpenoids, sweet orange-oil                         | 68647-72-3    | < 0.3 Trade Secret *     |
| Toluene   | 108-88-3      | < 0.3 Trade Secret *     |
| Cumene  | 98-82-8       | < 0.2 Trade Secret *     |
| Ethylbenzene  | 100-41-4      | < 0.2 Trade Secret *     |
| Glycolic acid, butyl ester  | 7397-62-8     | < 0.2 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

| <u>Substance</u>  | <u>Condition</u>  |
|-------------------|-------------------|
| Hydrocarbons      | During Combustion |
| Carbon monoxide   | During Combustion |
| Carbon dioxide    | During Combustion |
| Hydrogen Chloride | 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. 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. 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. 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. 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. 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 container tightly closed. Keep cool. 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   | OSHA   | TWA:435 mg/m3(100 ppm)          |                                    |
| 1-Methoxy-2-propyl acetate | 108-65-6   | AIHA   | TWA:50 ppm                      |                                    |
| Toluene                    | 108-88-3   | ACGIH  | TWA:20 ppm                      | A4: Not class. as human carcin     |
| 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 |
| Cyclohexanone              | 108-94-1   | OSHA   | TWA:200 mg/m3(50 ppm)           |                                    |
| Carbon black               | 1333-86-4  | ACGIH  | TWA(inhalable fraction):3 mg/m3 | A3: Confirmed animal carcin.       |
| Carbon black               | 1333-86-4  | OSHA   | TWA:3.5 mg/m3                   |                                    |
| Naphthalene                | 91-20-3    | ACGIH  | TWA:10 ppm                      | A3: Confirmed animal carcin., SKIN |
| Naphthalene                | 91-20-3    | OSHA   | TWA:50 mg/m3(10 ppm)            |                                    |
| Benzene, trimethyl-        | 95-63-6    | ACGIH  | TWA:25 ppm                      |                                    |
| Cumene                     | 98-82-8    | ACGIH  | TWA:50 ppm                      |                                    |
| Cumene                     | 98-82-8    | OSHA   | TWA:245 mg/m3(50 ppm)           | SKIN                               |

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>                     | Solvent odor, black, solution                  |
| <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>                           | >=284 °F                                       |
| <b>Flash Point</b>                             | 126 °F [ <i>Test Method: Closed Cup</i> ]      |
| <b>Evaporation rate</b>                        | <=0.05 [ <i>Ref Std: BUOAC=1</i> ]             |
| <b>Flammability (solid, gas)</b>               | <i>Not Applicable</i>                          |
| <b>Flammable Limits(LEL)</b>                   | <i>No Data Available</i>                       |
| <b>Flammable Limits(UEL)</b>                   | <i>No Data Available</i>                       |
| <b>Vapor Pressure</b>                          | <=3.7 mmHg [ <i>@ 68 °F</i> ]                  |
| <b>Vapor Density</b>                           | <i>No Data Available</i>                       |
| <b>Density</b>                                 | 0.99 g/ml [ <i>@ 20 °C</i> ]                   |
| <b>Specific Gravity</b>                        | 0.99 [ <i>Ref Std: WATER=1</i> ]               |
| <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>              | 500 - 700 g/l [ <i>Details: As Packaged.</i> ] |
| <b>Percent volatile</b>                        | 50 - 65 % weight                               |

## 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 oxidizing agents

**10.6. Hazardous decomposition products**

| <u>Substance</u> | <u>Condition</u> |
|------------------|------------------|
| 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 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:**

May be harmful if inhaled.

Respiratory Tract Irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

May cause additional health effects (see below).

**Skin Contact:**

May be harmful in contact with skin.

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

May cause additional health effects (see below).

**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.



May cause additional health effects (see below).

#### Additional Health Effects:

##### Single exposure may cause target organ effects:

Central Nervous System (CNS) Depression: Signs/symptoms may include headache, dizziness, drowsiness, incoordination, nausea, slowed reaction time, slurred speech, giddiness, and unconsciousness.

##### 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.

| Ingredient   | CAS No.   | Class Description             | Regulation                                  |
|--------------|-----------|-------------------------------|---|
| Carbon black | 1333-86-4 | Grp. 2B: Possible human carc. | International Agency for Research on Cancer |
| Cumene       | 98-82-8   | Grp. 2B: Possible human carc. | International Agency for Research on Cancer |
| Cumene       | 98-82-8   | Anticipated human carcinogen  | National Toxicology Program Carcinogens     |
| Ethylbenzene | 100-41-4  | Grp. 2B: Possible human carc. | International Agency for Research on Cancer |
| Naphthalene  | 91-20-3   | Grp. 2B: Possible human carc. | International Agency for Research on Cancer |
| Naphthalene  | 91-20-3   | Anticipated human carcinogen  | National Toxicology Program Carcinogens     |

#### 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 <sub>2,000</sub> - 5,000 mg/kg |
| Overall product   | Inhalation-Vapor(4 hr)     |                       | No data available; calculated ATE <sub>20</sub> - 50 mg/l        |
| Overall product   | Ingestion                  |                       | No data available; calculated ATE >5,000 mg/kg                   |
| Heavy aromatic solvent naphtha (petroleum)                        | Inhalation-Vapor           | Professional judgment | LC <sub>50</sub> estimated to be 20 - 50 mg/l                    |
| Heavy aromatic solvent naphtha (petroleum)                        | Dermal                     | Rabbit                | LD <sub>50</sub> > 2,000 mg/kg                                   |
| Heavy aromatic solvent naphtha (petroleum)                        | Ingestion                  | Rat                   | LD <sub>50</sub> > 5,000 mg/kg                                   |
| Pine oil  | Dermal                     | Rabbit                | LD <sub>50</sub> > 2,000 mg/kg                                   |
| Pine oil  | Ingestion                  | Rat                   | LD <sub>50</sub> > 2,000 mg/kg                                   |
| 1-Methoxy-2-propyl acetate  | Dermal                     | Rabbit                | LD <sub>50</sub> > 5,000 mg/kg                                   |
| 1-Methoxy-2-propyl acetate  | Inhalation-Vapor (4 hours) | Rat                   | LC <sub>50</sub> > 28.8 mg/l                                     |
| 1-Methoxy-2-propyl acetate  | Ingestion                  | Rat                   | LD <sub>50</sub> 8,532 mg/kg                                     |
| Cyclohexanone   | Dermal                     | Rabbit                | LD <sub>50</sub> >794, <3160 mg/kg                               |
| Cyclohexanone   | Inhalation-Vapor (4 hours) | Rat                   | LC <sub>50</sub> > 6.2 mg/l                                      |
| Cyclohexanone   | Ingestion                  | Rat                   | LD <sub>50</sub> 1,296 mg/kg                                     |
| Vinyl polymer (New Jersey Trade Secret Registry # 04499600-5238P) | Dermal                     | Rabbit                | LD <sub>50</sub> > 8,000 mg/kg                                   |
| Vinyl polymer (New Jersey Trade Secret Registry # 04499600-5238P) | Ingestion                  | Rat                   | LD <sub>50</sub> > 8,000 mg/kg                                   |
| Carbon black  | Dermal                     | Rabbit                | LD <sub>50</sub> > 3,000 mg/kg                                   |
| Carbon black  | Ingestion                  | Rat                   | LD <sub>50</sub> > 8,000 mg/kg                                   |
| Light aromatic solvent naphtha (Petroleum)                        | Dermal                     | Rabbit                | LD <sub>50</sub> > 2,000 mg/kg                                   |
| Light aromatic solvent naphtha (Petroleum)                        | Inhalation-Vapor (4 hours) | Rat                   | LC <sub>50</sub> > 5.2 mg/l                                      |

|   |                                |        |  |
|---|--------------------------------|--------|--|
| Light aromatic solvent naphtha (Petroleum)                      | Ingestion                      | Rat    | LD50 > 5,000 mg/kg                       |
| 1,2,4-Trimethylbenzene  | Dermal                         | Rabbit | LD50 > 3,160 mg/kg                       |
| 1,2,4-Trimethylbenzene  | Inhalation-Vapor (4 hours)     | Rat    | LC50 18 mg/l                             |
| 1,2,4-Trimethylbenzene  | Ingestion                      | Rat    | LD50 3,400 mg/kg                         |
| (3',4'-Epoxy cyclohexylmethyl) 3,4-epoxy cyclohexanecarboxylate | Dermal                         | Rabbit | LD50 > 23,400 mg/kg                      |
| (3',4'-Epoxy cyclohexylmethyl) 3,4-epoxy cyclohexanecarboxylate | Ingestion                      | Rat    | LD50 5,000 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                       |
| Oils, orange  | Inhalation-Vapor (4 hours)     | Mouse  | LC50 > 3.14 mg/l                         |
| Oils, orange  | Dermal                         | Rabbit | LD50 > 5,000 mg/kg                       |
| Oils, orange  | Ingestion                      | Rat    | LD50 4,400 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                         |
| Naphthalene   | Dermal                         | Human  | LD50 estimated to be 2,000 - 5,000 mg/kg |
| Naphthalene   | Inhalation-Vapor               | Human  | LC50 estimated to be 20 - 50 mg/l        |
| Naphthalene   | Ingestion                      | Human  | LD50 estimated to be 300 - 2,000 mg/kg   |
| Terpenes and terpenoids, sweet orange-oil                       | Inhalation-Vapor (4 hours)     | Mouse  | LC50 > 3.14 mg/l                         |
| Terpenes and terpenoids, sweet orange-oil                       | Dermal                         | Rabbit | LD50 > 5,000 mg/kg                       |
| Terpenes and terpenoids, sweet orange-oil                       | Ingestion                      | Rat    | LD50 4,400 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                         |
| Cumene  | Dermal                         | Rabbit | LD50 > 3,160 mg/kg                       |
| Cumene  | Inhalation-Vapor (4 hours)     | Rat    | LC50 39.4 mg/l                           |
| Cumene  | Ingestion                      | Rat    | LD50 1,400 mg/kg                         |
| Glycolic acid, butyl ester                                      | Dermal                         |        | LD50 estimated to be 2,000 - 5,000 mg/kg |
| Glycolic acid, butyl ester                                      | Inhalation-Dust/Mist (4 hours) | Rat    | LC50 > 6.2 mg/l                          |
| Glycolic acid, butyl ester                                      | Ingestion                      | Rat    | LD50 4,595 mg/kg                         |

ATE = acute toxicity estimate

**Skin Corrosion/Irritation**

| Name  | Species                | Value                     |
|---|------------------------|---------------------------|
| Heavy aromatic solvent naphtha (petroleum)                        | Rabbit                 | Minimal irritation        |
| Pine oil  | Not available          | Irritant                  |
| 1-Methoxy-2-propyl acetate  | Rabbit                 | No significant irritation |
| Cyclohexanone   | Rabbit                 | Irritant                  |
| Vinyl polymer (New Jersey Trade Secret Registry # 04499600-5238P) | Professional judgement | No significant irritation |
| Carbon black  | Rabbit                 | No significant irritation |
| Light aromatic solvent naphtha (Petroleum)                        | Rabbit                 | Irritant                  |
| 1,2,4-Trimethylbenzene  | Rabbit                 | Irritant                  |
| (3',4'-Epoxy cyclohexylmethyl) 3,4-epoxy cyclohexanecarboxylate   | Rabbit                 | Minimal irritation        |

|   |        |                           |
|---|--------|---------------------------|
| N-Butyl methacrylate                      | Rabbit | Irritant                  |
| Oils, orange                              | Rabbit | Mild irritant             |
| Toluene                                   | Rabbit | Irritant                  |
| Naphthalene                               | Rabbit | Minimal irritation        |
| Terpenes and terpenoids, sweet orange-oil | Rabbit | Mild irritant             |
| Ethylbenzene                              | Rabbit | Mild irritant             |
| Cumene                                    | Rabbit | Minimal irritation        |
| Glycolic acid, butyl ester                | Rabbit | No significant irritation |

**Serious Eye Damage/Irritation**

| Name  | Species                | Value                     |
|---|------------------------|---------------------------|
| Heavy aromatic solvent naphtha (petroleum)                        | Rabbit                 | Mild irritant             |
| Pine oil  | Rabbit                 | Severe irritant           |
| 1-Methoxy-2-propyl acetate  | Rabbit                 | Mild irritant             |
| Cyclohexanone   | Rabbit                 | Severe irritant           |
| Vinyl polymer (New Jersey Trade Secret Registry # 04499600-5238P) | Professional judgement | No significant irritation |
| Carbon black  | Rabbit                 | No significant irritation |
| Light aromatic solvent naphtha (Petroleum)                        | Rabbit                 | Mild irritant             |
| 1,2,4-Trimethylbenzene  | Rabbit                 | Mild irritant             |
| (3',4'-Epoxy-cyclohexylmethyl) 3,4-epoxy-cyclohexanecarboxylate   | Rabbit                 | Mild irritant             |
| N-Butyl methacrylate  | Rabbit                 | Mild irritant             |
| Oils, orange  | Rabbit                 | Mild irritant             |
| Toluene   | Rabbit                 | Moderate irritant         |
| Naphthalene   | Rabbit                 | No significant irritation |
| Terpenes and terpenoids, sweet orange-oil                         | Rabbit                 | Mild irritant             |
| Ethylbenzene  | Rabbit                 | Moderate irritant         |
| Cumene  | Rabbit                 | Mild irritant             |
| Glycolic acid, butyl ester  | Rabbit                 | Corrosive                 |

**Skin Sensitization**

| Name  | Species    | Value          |
|---|------------|----------------|
| Heavy aromatic solvent naphtha (petroleum)                      | Guinea pig | Not classified |
| Pine oil  | Guinea pig | Not classified |
| 1-Methoxy-2-propyl acetate                                      | Guinea pig | Not classified |
| Cyclohexanone   | Guinea pig | Not classified |
| Light aromatic solvent naphtha (Petroleum)                      | Guinea pig | Not classified |
| 1,2,4-Trimethylbenzene  | Guinea pig | Not classified |
| (3',4'-Epoxy-cyclohexylmethyl) 3,4-epoxy-cyclohexanecarboxylate | Guinea pig | Sensitizing    |
| N-Butyl methacrylate  | Guinea pig | Sensitizing    |
| Oils, orange  | Mouse      | Sensitizing    |
| Toluene   | Guinea pig | Not classified |
| Terpenes and terpenoids, sweet orange-oil                       | Mouse      | Sensitizing    |
| Ethylbenzene  | Human      | Not classified |
| Cumene  | Guinea pig | Not classified |
| Glycolic acid, butyl ester                                      | Guinea pig | Not classified |

**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  |
|--|----------|--|
| Heavy aromatic solvent naphtha (petroleum)       | In Vitro | Not mutagenic  |
| Heavy aromatic solvent naphtha (petroleum)       | In vivo  | Not mutagenic  |
| Pine oil   | In Vitro | Not mutagenic  |
| Pine oil   | 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 |
| Carbon black                                     | In Vitro | Not mutagenic  |
| Carbon black                                     | In vivo  | Some positive data exist, but the data are not sufficient for classification |
| 1,2,4-Trimethylbenzene                           | In Vitro | Not mutagenic  |
| (3',4'-Epoxyoctahydro-2H-chromene-2-carboxylate) | In vivo  | Not mutagenic  |
| (3',4'-Epoxyoctahydro-2H-chromene-2-carboxylate) | 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  |
| Oils, orange                                     | In Vitro | Not mutagenic  |
| Oils, orange                                     | In vivo  | Not mutagenic  |
| Toluene  | In Vitro | Not mutagenic  |
| Toluene  | In vivo  | Not mutagenic  |
| Terpenes and terpenoids, sweet orange-oil        | In Vitro | Not mutagenic  |
| Terpenes and terpenoids, sweet orange-oil        | In vivo  | Not mutagenic  |
| Ethylbenzene                                     | In vivo  | Not mutagenic  |
| Ethylbenzene                                     | In Vitro | Some positive data exist, but the data are not sufficient for classification |
| Cumene   | In Vitro | Not mutagenic  |
| Cumene   | 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 |
| Carbon black                                     | Dermal     | Mouse                   | Not carcinogenic   |
| Carbon black                                     | Ingestion  | Mouse                   | Not carcinogenic   |
| Carbon black                                     | Inhalation | Rat                     | Carcinogenic   |
| Light aromatic solvent naphtha (Petroleum)       | Inhalation | Mouse                   | Some positive data exist, but the data are not sufficient for classification |
| (3',4'-Epoxyoctahydro-2H-chromene-2-carboxylate) | Dermal     | Mouse                   | Not carcinogenic   |
| Oils, orange                                     | Ingestion  | Rat                     | Some positive data exist, but the data are not sufficient for classification |
| 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 |
| Naphthalene                                      | Inhalation | Multiple animal species | Carcinogenic   |
| Terpenes and terpenoids, sweet orange-oil        | Ingestion  | Rat                     | Some positive data exist, but the data are not sufficient for classification |
| Ethylbenzene                                     | Inhalation | Multiple animal species | Carcinogenic   |
| Cumene   | Inhalation | Multiple animal species | Carcinogenic   |

**Reproductive Toxicity**

**Reproductive and/or Developmental Effects**

| Name  | Route         | Value                                  | Species                 | Test Result           | Exposure Duration              |
|---|---------------|--|-------------------------|-----------------------|--------------------------------|
| Heavy aromatic solvent naphtha (petroleum)                      | Not Specified | Not classified for female reproduction | Rat                     | NOAEL Not available   | 2 generation                   |
| Heavy aromatic solvent naphtha (petroleum)                      | Not Specified | Not classified for male reproduction   | Rat                     | NOAEL Not available   | 2 generation                   |
| Heavy aromatic solvent naphtha (petroleum)                      | Not Specified | Not classified for development         | Rat                     | NOAEL Not available   | 2 generation                   |
| Pine oil  | Ingestion     | Not classified for development         | Rat                     | NOAEL 600 mg/kg/day   | during gestation               |
| 1-Methoxy-2-propyl acetate                                      | Ingestion     | Not classified for female reproduction | Rat                     | NOAEL 1,000 mg/kg/day | prematuring & during gestation |
| 1-Methoxy-2-propyl acetate                                      | Ingestion     | Not classified for male reproduction   | Rat                     | NOAEL 1,000 mg/kg/day | prematuring & during gestation |
| 1-Methoxy-2-propyl acetate                                      | Ingestion     | Not classified for development         | Rat                     | NOAEL 1,000 mg/kg/day | prematuring & during gestation |
| 1-Methoxy-2-propyl acetate                                      | Inhalation    | Not classified for development         | Rat                     | NOAEL 21.6 mg/l       | during organogenesis           |
| Cyclohexanone   | Inhalation    | Not classified for female reproduction | Rat                     | NOAEL 4 mg/l          | 2 generation                   |
| Cyclohexanone   | Inhalation    | Not classified for male reproduction   | Rat                     | NOAEL 2 mg/l          | 2 generation                   |
| Cyclohexanone   | Ingestion     | Not classified for development         | Mouse                   | LOAEL 1,100 mg/kg/day | during organogenesis           |
| Cyclohexanone   | Inhalation    | Not classified for development         | Rat                     | NOAEL 2 mg/l          | 2 generation                   |
| Light aromatic solvent naphtha (Petroleum)                      | Inhalation    | Not classified for female reproduction | Rat                     | NOAEL 1,500 ppm       | 2 generation                   |
| Light aromatic solvent naphtha (Petroleum)                      | Inhalation    | Not classified for male reproduction   | Rat                     | NOAEL 1,500 ppm       | 2 generation                   |
| Light aromatic solvent naphtha (Petroleum)                      | Inhalation    | Not classified for development         | Rat                     | NOAEL 500 ppm         | 2 generation                   |
| 1,2,4-Trimethylbenzene  | Inhalation    | Not classified for female reproduction | Rat                     | NOAEL 1.2 mg/l        | 3 months                       |
| 1,2,4-Trimethylbenzene  | Inhalation    | Not classified for male reproduction   | Rat                     | NOAEL 1.2 mg/l        | 3 months                       |
| 1,2,4-Trimethylbenzene  | Inhalation    | Not classified for development         | Rat                     | NOAEL 1.5 mg/l        | during gestation               |
| (3',4'-Epoxy-cyclohexylmethyl) 3,4-epoxy-cyclohexanecarboxylate | Ingestion     | Not classified for development         | Rat                     | NOAEL 125 mg/kg/day   | during gestation               |
| N-Butyl methacrylate  | Ingestion     | Not classified for male reproduction   | Rat                     | NOAEL 1,000 mg/kg/day | 44 days                        |
| N-Butyl methacrylate  | Ingestion     | Not classified for female reproduction | Rat                     | NOAEL 300 mg/kg/day   | prematuring & during gestation |
| N-Butyl methacrylate  | Ingestion     | Not classified for development         | Rabbit                  | NOAEL 300 mg/kg/day   | during gestation               |
| N-Butyl methacrylate  | Inhalation    | Not classified for development         | Rat                     | NOAEL 1.8 mg/l        | during gestation               |
| Oils, orange  | Ingestion     | Not classified for female reproduction | Rat                     | NOAEL 750 mg/kg/day   | prematuring & during gestation |
| Oils, orange  | Ingestion     | Not classified for development         | Multiple animal species | NOAEL 591 mg/kg/day   | during organogenesis           |
| Toluene   | Inhalation    | Not classified for female reproduction | Human                   | NOAEL Not available   | occupational exposure          |
| Toluene   | Inhalation    | Not classified for male reproduction   | Rat                     | NOAEL 2.3 mg/l        | 1 generation                   |
| Toluene   | Ingestion     | Toxic to development                   | Rat                     | LOAEL 520             | during                         |

|   |            |  |                               |                                  |  |
|---|------------|--|-------------------------------|----------------------------------|--|
| Toluene                                   | Inhalation | Toxic to development                   | Human                         | mg/kg/day<br>NOAEL Not available | gestation<br>poisoning<br>and/or abuse |
| Terpenes and terpenoids, sweet orange-oil | Ingestion  | Not classified for female reproduction | Rat                           | NOAEL 750<br>mg/kg/day           | prematuring &<br>during<br>gestation   |
| Terpenes and terpenoids, sweet orange-oil | Ingestion  | Not classified for development         | Multiple<br>animal<br>species | NOAEL 591<br>mg/kg/day           | during<br>organogenesis                |
| Ethylbenzene                              | Inhalation | Not classified for development         | Rat                           | NOAEL 4.3<br>mg/l                | prematuring &<br>during<br>gestation   |
| Cumene                                    | Inhalation | Not classified for development         | Rabbit                        | NOAEL 11.3<br>mg/l               | during<br>organogenesis                |
| Glycolic acid, butyl ester                | Ingestion  | Toxic to development                   | Rat                           | NOAEL 250<br>mg/kg/day           | during<br>organogenesis                |

### Target Organ(s)

#### Specific Target Organ Toxicity - single exposure

| Name                                       | Route      | Target Organ(s)                   | Value  | Species                 | Test Result         | Exposure Duration |
|--|------------|-----------------------------------|--|-------------------------|---------------------|-------------------|
| Heavy aromatic solvent naphtha (petroleum) | Inhalation | central nervous system depression | May cause drowsiness or dizziness  | Human and animal        | NOAEL Not available |                   |
| Pine oil                                   | Inhalation | respiratory irritation            | Some positive data exist, but the data are not sufficient for classification | Not available           | NOAEL Not available |                   |
| Pine oil                                   | Ingestion  | central nervous system depression | Not classified   |                         | NOAEL Not available |                   |
| 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 |                   |
| Cyclohexanone                              | Ingestion  | central nervous system depression | May cause drowsiness or dizziness  | Professional judgement  | NOAEL Not available |                   |
| Light aromatic solvent naphtha (Petroleum) | Inhalation | central nervous system depression | May cause drowsiness or dizziness  | Professional judgement  | NOAEL Not available |                   |
| Light aromatic solvent naphtha (Petroleum) | Inhalation | respiratory irritation            | Some positive data exist, but the data are not sufficient for classification | Professional judgement  | NOAEL Not available |                   |
| Light aromatic solvent naphtha (Petroleum) | Ingestion  | central nervous system depression | May cause drowsiness or dizziness  | Professional judgement  | NOAEL Not available |                   |
| 1,2,4-Trimethylbenzene                     | Inhalation | central nervous system depression | May cause drowsiness or dizziness  | Human and animal        | NOAEL Not available |                   |
| 1,2,4-Trimethylbenzene                     | Inhalation | respiratory irritation            | May cause respiratory irritation   | official classification | NOAEL Not available |                   |
| 1,2,4-Trimethylbenzene                     | Ingestion  | central nervous system depression | May cause drowsiness or dizziness  | Professional judgement  | NOAEL Not available |                   |

|   |            |                                   |  |                         |                     |                        |
|---|------------|-----------------------------------|--|-------------------------|---------------------|------------------------|
| N-Butyl methacrylate                      | Inhalation | respiratory irritation            | May cause respiratory irritation   |                         | NOAEL Not available |                        |
| Oils, orange                              | Ingestion  | nervous system                    | Not classified   |                         | 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                     | Not classified   | 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 |
| Naphthalene                               | Ingestion  | blood                             | Causes damage to organs  | Human                   | NOAEL Not available | poisoning and/or abuse |
| Terpenes and terpenoids, sweet orange-oil | Ingestion  | nervous system                    | Not classified   |                         | NOAEL Not available |                        |
| 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 |                        |
| Cumene                                    | Inhalation | central nervous system depression | May cause drowsiness or dizziness  | Multiple animal species | NOAEL Not available | not available          |
| Cumene                                    | Inhalation | respiratory irritation            | May cause respiratory irritation   | Human                   | LOAEL 0.2 mg/l      | occupational exposure  |
| Cumene                                    | Ingestion  | central nervous system depression | May cause drowsiness or dizziness  | Multiple animal species | NOAEL Not available | not available          |
| Glycolic acid, butyl ester                | Inhalation | respiratory irritation            | May cause respiratory irritation   | Rat                     | NOAEL 0.4 mg/l      | 4 hours                |

**Specific Target Organ Toxicity - repeated exposure**

| Name                       | Route      | Target Organ(s)   | Value  | Species                 | Test Result           | Exposure Duration     |
|----------------------------|------------|---|--|-------------------------|-----------------------|-----------------------|
| 1-Methoxy-2-propyl acetate | Inhalation | kidney and/or bladder   | Not classified   | Rat                     | NOAEL 16.2 mg/l       | 9 days                |
| 1-Methoxy-2-propyl acetate | Inhalation | olfactory system  | Not classified   | Mouse                   | LOAEL 1.62 mg/l       | 9 days                |
| 1-Methoxy-2-propyl acetate | Inhalation | blood   | Not classified   | Multiple animal species | NOAEL 16.2 mg/l       | 9 days                |
| 1-Methoxy-2-propyl acetate | Ingestion  | endocrine system  | Not classified   | Rat                     | NOAEL 1,000 mg/kg/day | 44 days               |
| Cyclohexanone              | Inhalation | liver   kidney and/or bladder   | Not classified   | Rabbit                  | NOAEL 0.76 mg/l       | 50 days               |
| Cyclohexanone              | Ingestion  | liver   | Not classified   | Mouse                   | NOAEL 4,800 mg/kg/day | 90 days               |
| Carbon black               | Inhalation | pneumoconiosis  | Not classified   | Human                   | NOAEL Not available   | occupational exposure |
| 1,2,4-Trimethylbenzene     | Inhalation | hematopoietic system  | Some positive data exist, but the data are not sufficient for classification | Rat                     | NOAEL 0.5 mg/l        | 3 months              |
| 1,2,4-Trimethylbenzene     | Inhalation | nervous system  | Some positive data exist, but the data are not sufficient for classification | Rat                     | LOAEL 0.1 mg/l        | 3 months              |
| 1,2,4-Trimethylbenzene     | Inhalation | respiratory system  | Some positive data exist, but the data are not sufficient for classification | Human                   | NOAEL Not available   | occupational exposure |
| 1,2,4-Trimethylbenzene     | Inhalation | liver   kidney and/or bladder   heart   endocrine system   gastrointestinal tract   immune system | Not classified   | Rat                     | NOAEL 1.2 mg/l        | 3 months              |

|   |            |   |  |       |                       |                        |
|---|------------|---|--|-------|-----------------------|------------------------|
| 1,2,4-Trimethylbenzene  | Ingestion  | hematopoietic system  | Not classified   | Rat   | NOAEL 600 mg/kg/day   | 14 days                |
| 1,2,4-Trimethylbenzene  | Ingestion  | liver   immune system   kidney and/or bladder   | Not classified   | Rat   | NOAEL 1,000 mg/kg/day | 28 days                |
| (3',4'-Epoxy)cyclohexylmethyl 3,4-epoxycyclohexanecarboxylate | Ingestion  | olfactory system  | May cause damage to organs through prolonged or repeated exposure            | Rat   | NOAEL 5 mg/kg/day     | 90 days                |
| (3',4'-Epoxy)cyclohexylmethyl 3,4-epoxycyclohexanecarboxylate | Ingestion  | liver   kidney and/or bladder   hematopoietic system  | Not classified   | Rat   | NOAEL 500 mg/kg/day   | 90 days                |
| (3',4'-Epoxy)cyclohexylmethyl 3,4-epoxycyclohexanecarboxylate | Ingestion  | endocrine system   respiratory system   | Not classified   | Rat   | NOAEL 1,113 mg/kg/day | 14 days                |
| N-Butyl methacrylate  | Inhalation | kidney and/or bladder   | Not classified   | Rat   | NOAEL 11 mg/l         | 28 days                |
| N-Butyl methacrylate  | Inhalation | olfactory system  | Not classified   | Rat   | NOAEL 1.8 mg/l        | 28 days                |
| N-Butyl methacrylate  | Inhalation | heart   endocrine system   hematopoietic system   liver   nervous system   respiratory system   | Not classified   | Rat   | NOAEL 11 mg/l         | 28 days                |
| N-Butyl methacrylate  | Ingestion  | olfactory system  | Not classified   | Rat   | NOAEL 60 mg/kg/day    | 90 days                |
| N-Butyl methacrylate  | Ingestion  | endocrine system   hematopoietic system   liver   nervous system   kidney and/or bladder   heart   immune system                                  | Not classified   | Rat   | NOAEL 360 mg/kg/day   | 90 days                |
| Oils, orange  | Ingestion  | kidney and/or bladder   | Not classified   | Rat   | LOAEL 75 mg/kg/day    | 103 weeks              |
| Oils, orange  | Ingestion  | liver   | Not classified   | Mouse | NOAEL 1,000 mg/kg/day | 103 weeks              |
| Oils, orange  | Ingestion  | heart   endocrine system   bone, teeth, nails, and/or hair   hematopoietic system   immune system   muscles   nervous system   respiratory system | Not classified   | Rat   | NOAEL 600 mg/kg/day   | 103 weeks              |
| 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   | Not classified   | Rat   | NOAEL 11.3 mg/l       | 15 weeks               |
| Toluene   | Inhalation | endocrine system  | Not classified   | Rat   | NOAEL 1.1 mg/l        | 4 weeks                |
| Toluene   | Inhalation | immune system   | Not classified   | Mouse | NOAEL Not available   | 20 days                |
| Toluene   | Inhalation | bone, teeth, nails, and/or hair   | Not classified   | Mouse | NOAEL 1.1 mg/l        | 8 weeks                |
| Toluene   | Inhalation | hematopoietic   | Not classified   | Human | NOAEL Not             | occupational           |



|   |            |   |  |                         |                       |                        |
|---|------------|---|--|-------------------------|-----------------------|------------------------|
|   |            | system   vascular system  |  |                         | available             | exposure               |
| Toluene                                   | Inhalation | gastrointestinal tract  | Not classified   | Multiple animal species | NOAEL 11.3 mg/l       | 15 weeks               |
| 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   | Not classified   | Rat                     | NOAEL 2,500 mg/kg/day | 13 weeks               |
| Toluene                                   | Ingestion  | liver   kidney and/or bladder   | Not classified   | Multiple animal species | NOAEL 2,500 mg/kg/day | 13 weeks               |
| Toluene                                   | Ingestion  | hematopoietic system  | Not classified   | Mouse                   | NOAEL 600 mg/kg/day   | 14 days                |
| Toluene                                   | Ingestion  | endocrine system  | Not classified   | Mouse                   | NOAEL 105 mg/kg/day   | 28 days                |
| Toluene                                   | Ingestion  | immune system   | Not classified   | Mouse                   | NOAEL 105 mg/kg/day   | 4 weeks                |
| Naphthalene                               | Dermal     | blood   | Causes damage to organs through prolonged or repeated exposure               | Human                   | NOAEL Not available   | poisoning and/or abuse |
| Naphthalene                               | Dermal     | eyes  | Not classified   | Human                   | NOAEL Not available   | occupational exposure  |
| Naphthalene                               | Inhalation | respiratory system  | Causes damage to organs through prolonged or repeated exposure               | Rat                     | LOAEL 0.01 mg/l       | 13 weeks               |
| Naphthalene                               | Inhalation | blood   | Causes damage to organs through prolonged or repeated exposure               | Human                   | NOAEL Not available   | poisoning and/or abuse |
| Naphthalene                               | Inhalation | eyes  | Not classified   | Human                   | NOAEL Not available   | occupational exposure  |
| Naphthalene                               | Ingestion  | blood   | Causes damage to organs through prolonged or repeated exposure               | Human                   | NOAEL Not available   | poisoning and/or abuse |
| Naphthalene                               | Ingestion  | eyes  | May cause damage to organs though prolonged or repeated exposure             | Rabbit                  | LOAEL 500 mg/kg/day   | 15 days                |
| Terpenes and terpenoids, sweet orange-oil | Ingestion  | kidney and/or bladder   | Not classified   | Rat                     | LOAEL 75 mg/kg/day    | 103 weeks              |
| Terpenes and terpenoids, sweet orange-oil | Ingestion  | liver   | Not classified   | Mouse                   | NOAEL 1,000 mg/kg/day | 103 weeks              |
| Terpenes and terpenoids, sweet orange-oil | Ingestion  | heart   endocrine system   bone, teeth, nails, and/or hair   hematopoietic system   immune system   muscles   nervous system   respiratory system | Not classified   | Rat                     | NOAEL 600 mg/kg/day   | 103 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  | Not classified   | Rat                     | NOAEL 3.4 mg/l        | 28 days                |
| Ethylbenzene                              | Inhalation | auditory system   | Not classified   | Rat                     | NOAEL 2.4 mg/l        | 5 days                 |
| Ethylbenzene                              | Inhalation | endocrine system  | Not classified   | Mouse                   | NOAEL 3.3 mg/l        | 103 weeks              |
| Ethylbenzene                              | Inhalation | gastrointestinal tract  | Not classified   | Rat                     | NOAEL 3.3 mg/l        | 2 years                |
| Ethylbenzene                              | Inhalation | bone, teeth, nails, and/or hair   muscles   | Not classified   | Multiple animal species | NOAEL 4.2 mg/l        | 90 days                |
| Ethylbenzene                              | Inhalation | heart   immune system   respiratory   | Not classified   | Multiple animal         | NOAEL 3.3 mg/l        | 2 years                |

|                            |            | system   |  | species |                     |          |
|----------------------------|------------|--|--|---------|---------------------|----------|
| Ethylbenzene               | Ingestion  | liver   kidney and/or bladder  | Not classified   | Rat     | NOAEL 680 mg/kg/day | 6 months |
| Cumene                     | Inhalation | auditory system   endocrine system   hematopoietic system   liver   nervous system   eyes            | Not classified   | Rat     | NOAEL 59 mg/l       | 13 weeks |
| Cumene                     | Inhalation | kidney and/or bladder  | Not classified   | Rat     | NOAEL 4.9 mg/l      | 13 weeks |
| Cumene                     | Inhalation | respiratory system   | Not classified   | Rat     | NOAEL 59 mg/l       | 13 weeks |
| Cumene                     | Ingestion  | kidney and/or bladder   heart   endocrine system   hematopoietic system   liver   respiratory system | Not classified   | Rat     | NOAEL 769 mg/kg/day | 6 months |
| Glycolic acid, butyl ester | Ingestion  | blood   kidney and/or bladder  | Some positive data exist, but the data are not sufficient for classification | Rat     | NOAEL 100 mg/kg/day | 90 days  |

### Aspiration Hazard

| Name                                       | Value             |
|--|-------------------|
| Heavy aromatic solvent naphtha (petroleum) | Aspiration hazard |
| Light aromatic solvent naphtha (Petroleum) | Aspiration hazard |
| 1,2,4-Trimethylbenzene                     | Aspiration hazard |
| Oils, orange                               | Aspiration hazard |
| Toluene                                    | Aspiration hazard |
| Terpenes and terpenoids, sweet orange-oil  | Aspiration hazard |
| Ethylbenzene                               | Aspiration hazard |
| Cumene                                     | 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. Combustion products will include halogen acid (HCl/HF/HBr). Facility must be capable of handling halogenated materials. As a disposal alternative, utilize an acceptable permitted waste disposal 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.

**EPCRA 311/312 Hazard Classifications:**

**Physical Hazards**

Flammable (gases, aerosols, liquids, or solids)

**Health Hazards**

Carcinogenicity

Reproductive toxicity

Respiratory or Skin Sensitization

Serious eye damage or eye irritation

Skin Corrosion or Irritation

Specific target organ toxicity (single or repeated exposure)

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

| <u>Ingredient</u>      | <u>C.A.S. No</u> | <u>% by Wt</u>         |
|------------------------|------------------|------------------------|
| 1,2,4-Trimethylbenzene | 95-63-6          | Trade Secret 0.5 - 1.5 |
| Naphthalene            | 91-20-3          | Trade Secret < 0.3     |
| Ethylbenzene           | 100-41-4         | Trade Secret < 0.2     |
| Cumene                 | 98-82-8          | Trade Secret < 0.2     |

**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. All required components of this product are listed on the active portion of the TSCA Inventory.

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: 1 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.

|                        |           |                         |          |
|------------------------|-----------|-------------------------|----------|
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