



Safety Data Sheet

Copyright, 2018, 3M Company.

All rights reserved. Copying and/or downloading of this information for the purpose of properly utilizing 3M products is allowed provided that: (1) the information is copied in full with no changes unless prior written agreement is obtained from 3M, and (2) neither the copy nor the original is resold or otherwise distributed with the intention of earning a profit thereon.

| | | | |
|------------------------|-----------|-------------------------|----------|
| Document Group: | 25-9904-1 | Version Number: | 5.01 |
| Issue Date: | 01/25/18 | Supersedes Date: | 10/22/14 |

SECTION 1: Identification

1.1. Product identifier

3M™ Foaming Engine Degreaser, 08899

Product Identification Numbers

60-4550-4625-4, 60-4550-5415-9, 60-4550-6573-4

1.2. Recommended use and restrictions on use

Recommended use

Automotive

1.3. Supplier's details

| | |
|----------------------|-----------------------------------------|
| MANUFACTURER: | 3M |
| DIVISION: | Automotive Aftermarket |
| ADDRESS: | 3M Center, St. Paul, MN 55144-1000, USA |
| Telephone: | 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

The label elements below were prepared in accordance with OSHA Hazard Communication Standard, 29 CFR 1910.1200. This information may be different from the actual product label information for labels regulated by other agencies.

2.1. Hazard classification

Flammable Aerosol: Category 1.
Gas Under Pressure: Liquefied gas.
Acute Toxicity (inhalation): Category 4.
Serious Eye Damage/Irritation: Category 2A.
Skin Corrosion/Irritation: Category 2.
Carcinogenicity: Category 2.
Specific Target Organ Toxicity (single exposure): Category 1.
Specific Target Organ Toxicity (single exposure): Category 3.
Specific Target Organ Toxicity (repeated exposure): Category 1.

2.2. Label elements

Signal word

Danger

Symbols

Flame | Exclamation mark | Health Hazard |

Pictograms



Hazard Statements

Extremely flammable aerosol.

Contains gas under pressure; may explode if heated.

Causes serious eye irritation.

Causes skin irritation.

Harmful if inhaled.

May cause drowsiness or dizziness.

Suspected of causing cancer.

Causes damage to organs:

blood or blood-forming organs |

cardiovascular system |

Causes damage to organs through prolonged or repeated exposure:

blood or blood-forming organs |

respiratory system |

May cause damage to organs through prolonged or repeated exposure:

sensory organs |

Precautionary Statements

General:

Keep out of reach of children.

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.

Do not spray on an open flame or other ignition source.

Pressurized container: Do not pierce or burn, even after use.

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.

Response:

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

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 ON SKIN: Wash with plenty of soap and water.
 If skin irritation occurs: Get medical advice/attention.
 Take off contaminated clothing and wash it before reuse.
 Specific treatment (see Notes to Physician on this label).
 Get medical advice/attention if you feel unwell.

Storage:

Protect from sunlight. Store in a well-ventilated place.
 Protect from sunlight. Do not expose to temperatures exceeding 50C/122F.
 Store in a well-ventilated place. Keep container tightly closed.
 Store locked up.

Disposal:

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

Notes to Physician:

Exposure may increase myocardial irritability. Do not administer sympathomimetic drugs unless absolutely necessary.

8% of the mixture consists of ingredients of unknown acute oral toxicity.
 10% of the mixture consists of ingredients of unknown acute dermal toxicity.
 27% of the mixture consists of ingredients of unknown acute inhalation toxicity.

SECTION 3: Composition/information on ingredients

| Ingredient | C.A.S. No. | % by Wt |
|--------------------------------|---------------|--------------------------|
| Water | 7732-18-5 | 40 - 70 Trade Secret * |
| 2-Butoxyethanol | 111-76-2 | 7 - 13 Trade Secret * |
| Heavy Aromatic Solvent Naphtha | 64742-94-5 | 5 - 10 Trade Secret * |
| Fatty Acids | Trade Secret* | 3 - 7 Trade Secret * |
| 1,2,4-Trimethylbenzene | 95-63-6 | 1 - 5 Trade Secret * |
| Ammonium Hydroxide | 1336-21-6 | 1 - 5 Trade Secret * |
| Butane | 106-97-8 | 1 - 5 Trade Secret * |
| Ethoxylated Lauryl Alcohol | 9002-92-0 | 1 - 5 Trade Secret * |
| Light Aromatic Solvent Naphtha | 64742-95-6 | 1 - 5 Trade Secret * |
| Propane | 74-98-6 | 1 - 5 Trade Secret * |
| Glycol Ethers | 25498-49-1 | 0.5 - 1.5 Trade Secret * |
| Mesitylene | 108-67-8 | 0.5 - 1.5 Trade Secret * |
| Naphthalene | 91-20-3 | 0.5 - 1.5 Trade Secret * |
| Cumene | 98-82-8 | <= 0.5 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. 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

Exposure may increase myocardial irritability. Do not administer sympathomimetic drugs unless absolutely necessary.

SECTION 5: Fire-fighting measures

5.1. Suitable extinguishing media

Use a fire fighting agent suitable for the surrounding fire.

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

Carbon monoxide
Carbon dioxide

Condition

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. 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

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

If possible, seal leaking container. Place leaking containers in a well-ventilated area, preferably an operating exhaust hood, or if necessary outdoors on an impermeable surface until appropriate packaging for the leaking container or its contents is available. 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 in accordance with applicable local/regional/national/international regulations.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Do not use in a confined area with minimal air exchange. Keep out of reach of children. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Do not spray on an open flame or other ignition source. Do not pierce or burn, even after use. 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. Avoid contact with oxidizing agents (eg. chlorine, chromic acid etc.) Use personal protective equipment (gloves, respirators, etc.) as required.

7.2. Conditions for safe storage including any incompatibilities

Store in a well-ventilated place. Keep container tightly closed. Protect from sunlight. Do not expose to temperatures exceeding 50C/122F. Protect from sunlight. Store in a well-ventilated place. Store away from heat. 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 |
|--------------------------------------------------------------------|------------|--------|------------------------------|------------------------------------|
| Natural gas | 106-97-8 | ACGIH | Limit value not established: | |
| Butane | 106-97-8 | ACGIH | STEL:1000 ppm | |
| Benzene, trimethyl- | 108-67-8 | ACGIH | TWA:25 ppm | |
| 2-Butoxyethanol | 111-76-2 | OSHA | TWA:240 mg/m3(50 ppm) | SKIN |
| 2-Butoxyethanol | 111-76-2 | ACGIH | TWA:20 ppm | A3: Confirmed animal carcin. |
| AMMONIA RELEASED FROM AMMONIUM HYDROXIDE/AQUEOUS AMMONIA SOLUTIONS | 1336-21-6 | ACGIH | TWA:25 ppm;STEL:35 ppm | |
| AMMONIA RELEASED FROM AMMONIUM HYDROXIDE/AQUEOUS AMMONIA SOLUTIONS | 1336-21-6 | OSHA | TWA:35 mg/m3(50 ppm) | |
| Propane | 74-98-6 | ACGIH | Limit value not established: | simple asphyxiant |
| Propane | 74-98-6 | OSHA | TWA:1800 mg/m3(1000 ppm) | |
| 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 | OSHA | TWA:245 mg/m3(50 ppm) | SKIN |
| Cumene | 98-82-8 | ACGIH | TWA:50 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.

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.

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

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

Half facepiece or full facepiece supplied-air respirator

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

| | |
|------------------------------------------------|---------------------------------|
| General Physical Form: | Liquid |
| Specific Physical Form: | Aerosol |
| Odor, Color, Grade: | Clear color ammonical odor |
| Odor threshold | <i>No Data Available</i> |
| pH | 9.5 |
| Melting point | <i>No Data Available</i> |
| Boiling Point | <=469 °F |
| Flash Point | < 0 °F [Test Method:Closed Cup] |
| Evaporation rate | <i>No Data Available</i> |
| Flammability (solid, gas) | Not Applicable |
| Flammable Limits(LEL) | <i>No Data Available</i> |
| Flammable Limits(UEL) | <i>No Data Available</i> |
| Vapor Pressure | <i>No Data Available</i> |
| Vapor Density | <i>No Data Available</i> |
| Density | 0.89 g/cm ³ |
| Specific Gravity | 0.89 [Ref.Std:WATER=1] |
| Solubility In Water | <i>No Data Available</i> |
| Solubility- non-water | <i>No Data Available</i> |
| Partition coefficient: n-octanol/ water | <i>No Data Available</i> |

| | |
|--------------------------------|------------------------------------------------------------------|
| Autoignition temperature | No Data Available |
| Decomposition temperature | Not Applicable |
| Viscosity | No Data Available |
| Hazardous Air Pollutants | 0.179 lb HAPS/lb solids [<i>Test Method</i> :Calculated] |
| Volatile Organic Compounds | 34.1 % weight [<i>Test Method</i> :calculated per CARB title 2] |
| Volatile Organic Compounds | 312 g/l [<i>Test Method</i> :calculated SCAQMD rule 443.1] |
| VOC Less H2O & Exempt Solvents | 598 g/l [<i>Test Method</i> :calculated SCAQMD rule 443.1] |

SECTION 10: Stability and reactivity

10.1. Reactivity

This material is considered to be non reactive under normal use conditions.

10.2. Chemical stability

Stable.

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid

Heat

10.5. Incompatible materials

None known.

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:

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.

Eye Contact:

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

Ingestion:

May be harmful if swallowed.

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.

Blood Effects: Signs/symptoms may include generalized weakness and fatigue, skin pallor, changes in blood clotting time, internal bleeding, and/or hemoglobinemia.

Single exposure, above recommended guidelines, may cause:

Cardiac Sensitization: Signs/symptoms may include irregular heartbeat (arrhythmia), faintness, chest pain, and may be fatal.

Prolonged or repeated exposure may cause target organ effects:

Ocular Effects: Signs/symptoms may include blurred or significantly impaired vision.

Respiratory Effects: Signs/symptoms may include cough, shortness of breath, chest tightness, wheezing, increased heart rate, bluish colored skin (cyanosis), sputum production, changes in lung function tests, and/or respiratory failure.

Carcinogenicity:

Contains a chemical or chemicals which can cause cancer.

| Ingredient | CAS No. | Class Description | Regulation |
|-------------------|----------------|-------------------------------|---------------------------------------------|
| 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 |
| 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 ATE2,000 - 5,000 mg/kg |
| Overall product | Inhalation-Vapor(4 hr) | | No data available; calculated ATE10 - 20 mg/l |
| Overall product | Ingestion | | No data available; calculated ATE2,000 - 5,000 mg/kg |
| 2-Butoxyethanol | Dermal | Guinea pig | LD50 > 2,000 mg/kg |
| 2-Butoxyethanol | Inhalation-Vapor (4 hours) | Guinea pig | LC50 > 2.6 mg/l |

| | | | |
|--------------------------------|----------------------------|------------|------------------------------------------|
| 2-Butoxyethanol | Ingestion | Guinea pig | LD50 1,414 mg/kg |
| Heavy Aromatic Solvent Naphtha | Dermal | Rabbit | LD50 > 2,000 mg/kg |
| Heavy Aromatic Solvent Naphtha | Ingestion | Rat | LD50 > 5,000 mg/kg |
| Propane | Inhalation-Gas (4 hours) | Rat | LC50 > 200,000 ppm |
| Fatty Acids | Dermal | Guinea pig | LD50 > 3,000 mg/kg |
| Fatty Acids | Ingestion | Rat | LD50 57,000 mg/kg |
| Ethoxylated Lauryl Alcohol | Dermal | | LD50 estimated to be 2,000 - 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 |
| Butane | Inhalation-Gas (4 hours) | Rat | LC50 277,000 ppm |
| Ethoxylated Lauryl Alcohol | Ingestion | Rat | LD50 3,700 mg/kg |
| Ammonium Hydroxide | Ingestion | Rat | LD50 350 mg/kg |
| Light Aromatic Solvent Naphtha | Dermal | Rabbit | LD50 > 2,000 mg/kg |
| Light Aromatic Solvent Naphtha | Inhalation-Vapor (4 hours) | Rat | LC50 > 5.2 mg/l |
| Light Aromatic Solvent Naphtha | Ingestion | Rat | LD50 > 5,000 mg/kg |
| Mesitylene | Dermal | Rabbit | LD50 > 3,160 mg/kg |
| Mesitylene | Inhalation-Vapor (4 hours) | Rat | LC50 18 mg/l |
| Mesitylene | Ingestion | Rat | LD50 3,400 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 |
| Glycol Ethers | Dermal | Rabbit | LD50 > 19,340 mg/kg |
| Glycol Ethers | Inhalation-Dust/Mist | Rat | LC50 estimated to be 5 - 12.5 mg/l |
| Glycol Ethers | Ingestion | Rat | LD50 3,300 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 |

ATE = acute toxicity estimate

Skin Corrosion/Irritation

| Name | Species | Value |
|--------------------------------|------------------------|---------------------------|
| 2-Butoxyethanol | Rabbit | Irritant |
| Heavy Aromatic Solvent Naphtha | Rabbit | Irritant |
| Propane | Rabbit | Minimal irritation |
| Fatty Acids | Rabbit | Minimal irritation |
| 1,2,4-Trimethylbenzene | Rabbit | Irritant |
| Butane | Professional judgement | No significant irritation |
| Ammonium Hydroxide | Rabbit | Corrosive |
| Light Aromatic Solvent Naphtha | Rabbit | Irritant |
| Mesitylene | Rabbit | Irritant |
| Naphthalene | Rabbit | Minimal irritation |
| Cumene | Rabbit | Minimal irritation |

Serious Eye Damage/Irritation

| Name | Species | Value |
|--------------------------------|---------|---------------------------|
| 2-Butoxyethanol | Rabbit | Severe irritant |
| Heavy Aromatic Solvent Naphtha | Rabbit | Mild irritant |
| Propane | Rabbit | Mild irritant |
| Fatty Acids | Rabbit | Mild irritant |
| 1,2,4-Trimethylbenzene | Rabbit | Mild irritant |
| Butane | Rabbit | No significant irritation |
| Ammonium Hydroxide | Rabbit | Corrosive |
| Light Aromatic Solvent Naphtha | Rabbit | Mild irritant |
| Mesitylene | Rabbit | Mild irritant |
| Naphthalene | Rabbit | No significant irritation |
| Cumene | Rabbit | Mild irritant |

Skin Sensitization

| Name | Species | Value |
|--------------------------------|------------|----------------|
| 2-Butoxyethanol | Guinea pig | Not classified |
| Heavy Aromatic Solvent Naphtha | Guinea pig | Not classified |
| 1,2,4-Trimethylbenzene | Guinea pig | Not classified |
| Light Aromatic Solvent Naphtha | Guinea pig | Not classified |
| Mesitylene | Guinea pig | Not classified |
| Cumene | 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 |
|------------------------|----------|------------------------------------------------------------------------------|
| 2-Butoxyethanol | In Vitro | Some positive data exist, but the data are not sufficient for classification |
| Propane | In Vitro | Not mutagenic |
| Fatty Acids | In Vitro | Some positive data exist, but the data are not sufficient for classification |
| 1,2,4-Trimethylbenzene | In Vitro | Not mutagenic |
| Butane | In Vitro | Not mutagenic |
| Mesitylene | In Vitro | Not mutagenic |
| Cumene | In Vitro | Not mutagenic |
| Cumene | In vivo | Not mutagenic |

Carcinogenicity

| Name | Route | Species | Value |
|--------------------------------|---------------|-------------------------|------------------------------------------------------------------------------|
| 2-Butoxyethanol | Inhalation | Multiple animal species | Some positive data exist, but the data are not sufficient for classification |
| Heavy Aromatic Solvent Naphtha | Dermal | Mouse | Some positive data exist, but the data are not sufficient for classification |
| Fatty Acids | Dermal | Mouse | Not carcinogenic |
| Fatty Acids | Ingestion | Rat | Not carcinogenic |
| Fatty Acids | Not Specified | Multiple animal species | Not carcinogenic |
| Light Aromatic Solvent Naphtha | Inhalation | Mouse | Some positive data exist, but the data are not sufficient for classification |
| Naphthalene | Inhalation | Multiple animal | Carcinogenic |

| | | | |
|--------|------------|-------------------------|--------------|
| Cumene | Inhalation | Multiple animal species | Carcinogenic |
|--------|------------|-------------------------|--------------|

Reproductive Toxicity

Reproductive and/or Developmental Effects

| Name | Route | Value | Species | Test Result | Exposure Duration |
|--------------------------------|------------|----------------------------------------|-------------------------|-----------------------|----------------------|
| 2-Butoxyethanol | Dermal | Not classified for development | Rat | NOAEL 1,760 mg/kg/day | during gestation |
| 2-Butoxyethanol | Ingestion | Not classified for development | Rat | NOAEL 100 mg/kg/day | during organogenesis |
| 2-Butoxyethanol | Inhalation | Not classified for development | Multiple animal species | NOAEL 0.48 mg/l | during organogenesis |
| 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 |
| Light Aromatic Solvent Naphtha | Inhalation | Not classified for female reproduction | Rat | NOAEL 1,500 ppm | 2 generation |
| Light Aromatic Solvent Naphtha | Inhalation | Not classified for male reproduction | Rat | NOAEL 1,500 ppm | 2 generation |
| Light Aromatic Solvent Naphtha | Inhalation | Not classified for development | Rat | NOAEL 500 ppm | 2 generation |
| Mesitylene | Inhalation | Not classified for female reproduction | Rat | NOAEL 1.2 mg/l | 3 months |
| Mesitylene | Inhalation | Not classified for male reproduction | Rat | NOAEL 1.2 mg/l | 3 months |
| Mesitylene | Inhalation | Not classified for development | Rat | NOAEL 1.5 mg/l | during gestation |
| Cumene | Inhalation | Not classified for development | Rabbit | NOAEL 11.3 mg/l | during organogenesis |

Target Organ(s)

Specific Target Organ Toxicity - single exposure

| Name | Route | Target Organ(s) | Value | Species | Test Result | Exposure Duration |
|-----------------|------------|-----------------------------------|------------------------------------------------------------------------------|-------------------------|---------------------|-------------------|
| 2-Butoxyethanol | Dermal | endocrine system | Not classified | Rabbit | NOAEL 902 mg/kg | 6 hours |
| 2-Butoxyethanol | Dermal | liver | Not classified | Rabbit | LOAEL 72 mg/kg | not available |
| 2-Butoxyethanol | Dermal | kidney and/or bladder | Not classified | Rabbit | LOAEL 451 mg/kg | 6 hours |
| 2-Butoxyethanol | Dermal | blood | Not classified | Multiple animal species | NOAEL Not available | |
| 2-Butoxyethanol | Inhalation | central nervous system depression | May cause drowsiness or dizziness | Human | NOAEL Not available | |
| 2-Butoxyethanol | Inhalation | respiratory irritation | Some positive data exist, but the data are not sufficient for classification | Human | NOAEL Not available | |
| 2-Butoxyethanol | Inhalation | blood | Not classified | Multiple animal species | NOAEL Not available | |
| 2-Butoxyethanol | Ingestion | central nervous system depression | May cause drowsiness or dizziness | Professional judgement | NOAEL Not available | |

| | | | | | | |
|--------------------------------|------------|-----------------------------------|------------------------------------------------------------------------------|-------------------------|---------------------|------------------------|
| 2-Butoxyethanol | Ingestion | blood | Not classified | Multiple animal species | NOAEL Not available | |
| 2-Butoxyethanol | Ingestion | kidney and/or bladder | Not classified | Human | NOAEL Not available | poisoning and/or abuse |
| Heavy Aromatic Solvent Naphtha | Inhalation | central nervous system depression | May cause drowsiness or dizziness | Human and animal | NOAEL Not available | |
| Heavy Aromatic Solvent Naphtha | Inhalation | respiratory irritation | Some positive data exist, but the data are not sufficient for classification | Professional judgement | NOAEL Not available | |
| Heavy Aromatic Solvent Naphtha | Ingestion | central nervous system depression | May cause drowsiness or dizziness | Professional judgement | NOAEL Not available | |
| Propane | Inhalation | cardiac sensitization | Causes damage to organs | Human | NOAEL Not available | |
| Propane | Inhalation | central nervous system depression | May cause drowsiness or dizziness | Human | NOAEL Not available | |
| Propane | Inhalation | respiratory irritation | Not classified | Human | 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 | |
| Butane | Inhalation | cardiac sensitization | Causes damage to organs | Human | NOAEL Not available | |
| Butane | Inhalation | central nervous system depression | May cause drowsiness or dizziness | Human and animal | NOAEL Not available | |
| Butane | Inhalation | heart | Not classified | Dog | NOAEL 5,000 ppm | 25 minutes |
| Butane | Inhalation | respiratory irritation | Not classified | Rabbit | NOAEL Not available | |
| Ammonium Hydroxide | Inhalation | respiratory irritation | May cause respiratory irritation | Human | NOAEL not available | |
| Light Aromatic Solvent Naphtha | Inhalation | central nervous system depression | May cause drowsiness or dizziness | Professional judgement | NOAEL Not available | |
| Light Aromatic Solvent Naphtha | Inhalation | respiratory irritation | Some positive data exist, but the data are not sufficient for classification | Professional judgement | NOAEL Not available | |
| Light Aromatic Solvent Naphtha | Ingestion | central nervous system depression | May cause drowsiness or dizziness | Professional judgement | NOAEL Not available | |
| Mesitylene | Inhalation | central nervous system depression | May cause drowsiness or dizziness | Human and animal | NOAEL Not available | |
| Mesitylene | Inhalation | respiratory irritation | May cause respiratory irritation | official classification | NOAEL Not available | |
| Mesitylene | Ingestion | central nervous system depression | May cause drowsiness or dizziness | Professional judgement | NOAEL Not available | |
| Naphthalene | Ingestion | blood | Causes damage to organs | Human | NOAEL Not available | poisoning |

| | | | | | | |
|--------|------------|-----------------------------------|-----------------------------------|-------------------------|---------------------|-----------------------|
| | | | | | available | and/or abuse |
| 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 |

Specific Target Organ Toxicity - repeated exposure

| Name | Route | Target Organ(s) | Value | Species | Test Result | Exposure Duration |
|------------------------|------------|--------------------------------------------------------------------------|------------------------------------------------------------------------------|-------------------------|-----------------------|-----------------------|
| 2-Butoxyethanol | Dermal | blood | Not classified | Multiple animal species | NOAEL Not available | not available |
| 2-Butoxyethanol | Dermal | endocrine system | Not classified | Rabbit | NOAEL 150 mg/kg/day | 90 days |
| 2-Butoxyethanol | Inhalation | liver | Not classified | Rat | NOAEL 2.4 mg/l | 14 weeks |
| 2-Butoxyethanol | Inhalation | kidney and/or bladder | Not classified | Rat | NOAEL 0.15 mg/l | 14 weeks |
| 2-Butoxyethanol | Inhalation | blood | Not classified | Rat | LOAEL 0.15 mg/l | 6 months |
| 2-Butoxyethanol | Inhalation | endocrine system | Not classified | Dog | LOAEL 1.9 mg/l | 8 days |
| 2-Butoxyethanol | Ingestion | blood | Not classified | Rat | LOAEL 69 mg/kg/day | 13 weeks |
| 2-Butoxyethanol | Ingestion | kidney and/or bladder | Not classified | Multiple animal species | NOAEL Not available | not available |
| Fatty Acids | Ingestion | liver immune system | Not classified | Rat | NOAEL 2,250 mg/kg/day | 108 weeks |
| Fatty Acids | Ingestion | hematopoietic system | Not classified | Rat | NOAEL 2,550 mg/kg/day | 108 weeks |
| 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 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 |
| Butane | Inhalation | kidney and/or bladder blood | Not classified | Rat | NOAEL 4,489 ppm | 90 days |
| Mesitylene | Inhalation | hematopoietic system | Some positive data exist, but the data are not sufficient for classification | Rat | NOAEL 0.5 mg/l | 3 months |
| Mesitylene | Inhalation | nervous system | Some positive data exist, but the data are not sufficient for classification | Rat | LOAEL 0.1 mg/l | 3 months |
| Mesitylene | Inhalation | respiratory system | Some positive data exist, but the data are not sufficient for classification | Human | NOAEL Not available | occupational exposure |
| Mesitylene | Inhalation | liver kidney and/or | Not classified | Rat | NOAEL 1.2 | 3 months |

| | | | | | | |
|-------------|------------|---------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------|--------|-----------------------------|---------------------------|
| | | bladder heart endocrine system immune system | | | mg/l | |
| Mesitylene | Ingestion | hematopoietic system | Not classified | Rat | NOAEL 600 mg/kg/day | 14 days |
| Mesitylene | Ingestion | liver immune system kidney and/or bladder | Not classified | Rat | NOAEL 1,000 mg/kg/day | 28 days |
| 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 |
| 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 |

Aspiration Hazard

| Name | Value |
|--------------------------------|-------------------|
| Heavy Aromatic Solvent Naphtha | Aspiration hazard |
| 1,2,4-Trimethylbenzene | Aspiration hazard |
| Light Aromatic Solvent Naphtha | Aspiration hazard |
| Mesitylene | 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. Facility must be capable of handling aerosol cans.

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)

Gas under pressure

Health Hazards

Acute toxicity

Carcinogenicity

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 1 - 5 |
| Ammonium Hydroxide (AMMONIA COMPOUNDS) | 1336-21-6 | 1 - 5 |
| 2-Butoxyethanol (GLYCOL ETHERS) | 111-76-2 | 7 - 13 |
| Naphthalene | 91-20-3 | Trade Secret 0.5 - 1.5 |

15.2. State Regulations

Contact 3M for more information.

California Proposition 65

| <u>Ingredient</u> | <u>C.A.S. No.</u> | <u>Listing</u> |
|-------------------|-------------------|---------------------------|
| Toluene | 108-88-3 | Female reproductive toxin |
| Toluene | 108-88-3 | Developmental Toxin |
| Naphthalene | 91-20-3 | Carcinogen |
| Cumene | 98-82-8 | Carcinogen |

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

Aerosol Storage Code: 1

HMIS Hazard Classification

Health: 2 **Flammability:** 2 **Physical Hazard:** 0 **Personal Protection:** X - See PPE section.

Hazardous Material Identification System (HMIS® IV) hazard ratings are designed to inform employees of chemical hazards in the workplace. These ratings are based on the inherent properties of the material under expected conditions of normal use and are not intended for use in emergency situations. HMIS® IV ratings are to be used with a fully implemented HMIS® IV program. HMIS® is a registered mark of the American Coatings Association (ACA).

| | | | |
|------------------------|-----------|-------------------------|----------|
| Document Group: | 25-9904-1 | Version Number: | 5.01 |
| Issue Date: | 01/25/18 | Supersedes Date: | 10/22/14 |

DISCLAIMER: The information in this Safety Data Sheet (SDS) is believed to be correct as of the date issued. 3M MAKES NO WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR COURSE OF PERFORMANCE OR USAGE OF TRADE. User is responsible for determining whether the 3M product is fit for a particular purpose and suitable for user's method of use or application. Given the variety of factors that can affect the use and application of a 3M product, some of which are uniquely within the user's knowledge and control, it is essential that the user evaluate the 3M product to determine whether it is fit for a particular purpose and suitable for user's method of use or application.

3M provides information in electronic form as a service to its customers. Due to the remote possibility that electronic transfer may have resulted in errors, omissions or alterations in this information, 3M makes no representations as to its completeness or accuracy. In addition, information obtained from a database may not be as current as the information in the SDS available directly from 3M.

3M USA SDSs are available at www.3M.com