



Safety Data Sheet

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

SECTION 1: Identification

1.1. Product identifier

3M Engine Oil Flush

Product Identification Numbers

IA-2601-0081-2 IA-2601-0086-1 IA-2601-0367-5 IA-2601-0494-7

1.2. Recommended use and restrictions on use

Recommended use

Automotive., Engine Oil Flush

1.3. Supplier's details

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

1.4. Emergency telephone number

080-45543000 (Contact hours: 8:00 AM to 5:00 PM)

SECTION 2: Hazard identification

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

2.1. Classification of the substance or mixture

Specific Target Organ Toxicity (single exposure): Category 3.

2.2. Label elements

Signal Word

Warning

Symbols

Exclamation mark |

Pictograms**HAZARD STATEMENTS:**

H336 May cause drowsiness or dizziness.

PRECAUTIONARY STATEMENTS**Prevention:**

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

2.3. Other hazards

Aspiration classification does not apply due to the viscosity of the product. Repeated exposure may cause skin dryness or cracking.

SECTION 3: Composition/information on ingredients

This material is a mixture.

| Ingredient | CAS Nbr | % by Wt |
|--|------------|---------|
| Distillates (petroleum), hydrotreated heavy paraffinic | 64742-54-7 | 60 - 90 |
| Residual oils (petroleum), solvent-refined | 64742-01-4 | 10 - 30 |
| MIXTURE- POLYOLEFIN AMIDE ALKELENEAMIDE | Mixture | 1 - 10 |

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

Wash with soap and water. If signs/symptoms develop, get medical attention.

Eye contact

Flush with large amounts of water. Remove contact lenses if easy to do. Continue rinsing. If signs/symptoms persist, 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

Central nervous system depression (headache, dizziness, drowsiness, incoordination, nausea, slurred speech, giddiness, and unconsciousness).

4.3. Indication of any immediate medical attention and special treatment required

Not applicable

SECTION 5: Fire-fighting measures

5.1. Suitable Extinguishing media

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

5.2. Special hazards arising from the substance or mixture

None inherent in this product.

Hazardous Decomposition or By-Products

Substance

Carbon monoxide.
Carbon dioxide.
Irritant vapours or gases.

Condition

During combustion.
During combustion.
During combustion.

5.3. Special protective actions for fire-fighters

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

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Evacuate area. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapors, in accordance with good industrial hygiene practice.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

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

SECTION 7: Handling and storage

7.1. Precautions for safe handling

For industrial/occupational use only. Not for consumer sale or use. Avoid breathing dust/fume/gas/mist/vapours/spray. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Avoid release to the environment. Avoid contact with oxidising agents (eg. chlorine, chromic acid etc.)

7.2. Conditions for safe storage including any incompatibilities

Store in a well-ventilated place. Keep container tightly closed. Store away from acids. Store away from strong bases. Store away from oxidising 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 | CAS Nbr | Agency | Limit type | Additional comments |
|------------|---------|--------|------------|---------------------|
|------------|---------|--------|------------|---------------------|

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| | | | | |
|-----------------------------------|------------|-------|---|--------------------------------|
| MINERAL OILS, HIGHLY-REFINED OILS | 64742-54-7 | ACGIH | TWA(inhalable fraction):5 mg/m ³ | A4: Not class. as human carcin |
|-----------------------------------|------------|-------|---|--------------------------------|

ACGIH : American Conference of Governmental Industrial Hygienists

AIHA : American Industrial Hygiene Association

CMRG : Chemical Manufacturer's Recommended Guidelines

TWA: Time-Weighted-Average

STEL: Short Term Exposure Limit

CEIL: Ceiling

8.2. Exposure controls

8.2.1. Engineering controls

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

8.2.2. Personal protective equipment (PPE)

Eye/face protection

None required.

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: Nitrile rubber.

Respiratory protection

An exposure assessment may be needed to decide if a respirator is required. If a respirator is needed, use respirators as part of a full respiratory protection program. Based on the results of the exposure assessment, select from the following respirator type(s) to reduce inhalation exposure:

Half facepiece or full facepiece air-purifying respirator suitable for organic vapours and particulates

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

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | |
|---|------------------------------|
| Physical state | Liquid. |
| Color | Brown |
| Odor | Mild Mineral oil |
| Odour threshold | No data available. |
| pH | No data available. |
| Melting point/Freezing point: NA | Not applicable. |
| Boiling point/Initial boiling point/Boiling range | No data available. |
| Flash point | ≥170 °C |
| Evaporation rate | No data available. |
| Flammability | Not applicable. |
| Flammable Limits(LEL) | No data available. |
| Flammable Limits(UEL) | No data available. |
| Vapour pressure | No data available. |
| Vapor Density and/or Relative Vapor Density | No data available. |
| Density | 0.84 - 0.87 g/ml [@ 15 °C] |

| | |
|---|---------------------------|
| Relative density | <i>No data available.</i> |
| Water solubility | Nil |
| Solubility- non-water | <i>No data available.</i> |
| Partition coefficient: n-octanol/water | <i>No data available.</i> |
| Autoignition temperature | <i>No data available.</i> |
| Decomposition temperature | <i>No data available.</i> |
| Kinematic Viscosity | 48.2 mm ² /sec |
| Volatile organic compounds (VOC) | <i>No data available.</i> |
| Percent volatile | <i>No data available.</i> |
| VOC less H ₂ O & exempt solvents | <i>No data available.</i> |

| | |
|--------------------------|------------------------|
| Particle Characteristics | <i>Not applicable.</i> |
|--------------------------|------------------------|

SECTION 10: Stability and reactivity

10.1 Reactivity

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

10.2 Chemical stability

Stable.

10.3 Possibility of hazardous reactions

Hazardous polymerisation will not occur.

10.4 Conditions to avoid

High shear and high temperature conditions

10.5 Incompatible materials

Combustibles.

Strong acids.

Strong bases.

Strong oxidising agents.

10.6 Hazardous decomposition products

Substance

None known.

Condition

Refer to section 5.2 for hazardous decomposition products during combustion.

SECTION 11: Toxicological information

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

11.1 Information on Toxicological effects

Signs and Symptoms of Exposure

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

Inhalation

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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

Prolonged or repeated exposure may cause: Dermal Defatting: Signs/symptoms may include localized redness, itching, drying and cracking of skin. Dermal Defatting: Signs/symptoms may include localised redness, itching, drying and cracking of skin.

Eye contact

Contact with the eyes during product use is not expected to result in significant irritation.

Ingestion

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

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.

Toxicological Data

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

Acute Toxicity

| Name | Route | Species | Value |
|--|--------------------------------|-------------------|--|
| Overall product | Ingestion | | No data available; calculated ATE >5,000 mg/kg |
| Distillates (petroleum), hydrotreated heavy paraffinic | Dermal | Rabbit | LD50 > 5,000 mg/kg |
| Distillates (petroleum), hydrotreated heavy paraffinic | Ingestion | Rat | LD50 > 5,000 mg/kg |
| Residual oils (petroleum), solvent-refined | Dermal | similar compounds | LD50 > 5,000 mg/kg |
| Residual oils (petroleum), solvent-refined | Inhalation-Dust/Mist (4 hours) | similar compounds | LC50 > 5.53 mg/l |
| Residual oils (petroleum), solvent-refined | Ingestion | similar compounds | LD50 > 5,000 mg/kg |

ATE = acute toxicity estimate

Skin Corrosion/Irritation

| Name | Species | Value |
|--|-------------------|---------------------------|
| Distillates (petroleum), hydrotreated heavy paraffinic | Rabbit | Minimal irritation |
| Residual oils (petroleum), solvent-refined | similar compounds | No significant irritation |

Serious Eye Damage/Irritation

| Name | Species | Value |
|--|-------------------|---------------------------|
| Distillates (petroleum), hydrotreated heavy paraffinic | Rabbit | Mild irritant |
| Residual oils (petroleum), solvent-refined | similar compounds | No significant irritation |

Sensitization:

Skin Sensitisation

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| Name | Species | Value |
|--|-------------------|----------------|
| Distillates (petroleum), hydrotreated heavy paraffinic | Guinea pig | Not classified |
| Residual oils (petroleum), solvent-refined | similar compounds | Not classified |

Respiratory Sensitisation

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

Germ Cell Mutagenicity

| Name | Route | Value |
|--|----------|--|
| Distillates (petroleum), hydrotreated heavy paraffinic | In Vitro | Some positive data exist, but the data are not sufficient for classification |
| Residual oils (petroleum), solvent-refined | In Vitro | Not mutagenic |

Carcinogenicity

| Name | Route | Species | Value |
|--|--------|---------|--|
| Distillates (petroleum), hydrotreated heavy paraffinic | Dermal | Mouse | Some positive data exist, but the data are not sufficient for classification |

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

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

Target Organ(s)**Specific Target Organ Toxicity - single exposure**

| Name | Route | Target Organ(s) | Value | Species | Test result | Exposure Duration |
|--|------------|-----------------------------------|-----------------------------------|------------------------|---------------------|-------------------|
| Distillates (petroleum), hydrotreated heavy paraffinic | Inhalation | central nervous system depression | May cause drowsiness or dizziness | Human and animal | NOAEL Not available | |
| Distillates (petroleum), hydrotreated heavy paraffinic | Ingestion | central nervous system depression | May cause drowsiness or dizziness | Professional judgement | NOAEL Not available | |

Specific Target Organ Toxicity - repeated exposure

| Name | Route | Target Organ(s) | Value | Species | Test result | Exposure Duration |
|--|------------|--------------------|----------------|---------|-----------------|-------------------|
| Distillates (petroleum), hydrotreated heavy paraffinic | Inhalation | respiratory system | Not classified | Rat | NOAEL 0.21 mg/l | 28 days |

Aspiration Hazard

| Name | Value |
|--|-------------------|
| Residual oils (petroleum), solvent-refined | 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

The information below may not be consistent with the material classification in Section 2 if specific ingredient classifications are mandated by a competent authority. Additional information leading to material classification in Section 2 is available upon request. In addition, environmental fate and effects data on ingredients may not be

reflected in this section because an ingredient is present below the threshold for labelling, an ingredient is not expected to be available for exposure, or the data is considered not relevant to the material as a whole.

12.1. Toxicity

Acute aquatic hazard:

Not acutely toxic to aquatic life by GHS criteria.

Chronic aquatic hazard:

Not chronically toxic to aquatic life by GHS criteria.

No product test data available.

| Material | CAS Nbr | Organism | Type | Exposure | Test endpoint | Test result |
|--|------------|----------------|--------------------|----------|--------------------------------|-------------|
| Distillates (petroleum), hydrotreated heavy paraffinic | 64742-54-7 | Green algae | Analogous Compound | 72 hours | No tox obs at lmt of water sol | >100 mg/l |
| Distillates (petroleum), hydrotreated heavy paraffinic | 64742-54-7 | Water flea | Analogous Compound | 48 hours | No tox obs at lmt of water sol | >100 mg/l |
| Distillates (petroleum), hydrotreated heavy paraffinic | 64742-54-7 | Fathead minnow | Experimental | 96 hours | No tox obs at lmt of water sol | >100 mg/l |
| Distillates (petroleum), hydrotreated heavy paraffinic | 64742-54-7 | Green algae | Analogous Compound | 72 hours | NOEL | 100 mg/l |
| Distillates (petroleum), hydrotreated heavy paraffinic | 64742-54-7 | Water flea | Analogous Compound | 21 days | NOEL | 100 mg/l |
| Residual oils (petroleum), solvent-refined | 64742-01-4 | Fathead minnow | Analogous Compound | 96 hours | LL50 | >100 mg/l |
| Residual oils (petroleum), solvent-refined | 64742-01-4 | Water flea | Analogous Compound | 48 hours | EL50 | >100 mg/l |
| Residual oils (petroleum), solvent-refined | 64742-01-4 | Green algae | Analogous Compound | 72 hours | NOEL | 100 mg/l |
| Residual oils (petroleum), solvent-refined | 64742-01-4 | Water flea | Analogous Compound | 21 days | NOEL | 10 mg/l |

12.2. Persistence and degradability

| Material | CAS Nbr | Test type | Duration | Study Type | Test result | Protocol |
|--|------------|-----------------------------------|----------|---------------|------------------------------------|-------------------------------------|
| Distillates (petroleum), hydrotreated heavy paraffinic | 64742-54-7 | Experimental Biodegradation | 28 days | BOD | 31 %BOD/ThOD | OECD 301F - Manometric respirometry |
| Residual oils (petroleum), solvent-refined | 64742-01-4 | Analogous Compound Biodegradation | 28 days | CO2 evolution | 2-8 %CO2 evolution/THCO2 evolution | OECD 301B - Modified sturm or CO2 |

12.3 : Bioaccumulative potential

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| Material | CAS Nbr | Test type | Duration | Study Type | Test result | Protocol |
|--|------------|---|----------|------------------------|-------------|------------|
| Distillates (petroleum), hydrotreated heavy paraffinic | 64742-54-7 | Modeled Bioconcentration | | Bioaccumulation factor | 7.5 | Catalogic™ |
| Residual oils (petroleum), solvent-refined | 64742-01-4 | Data not available or insufficient for classification | N/A | N/A | N/A | N/A |

12.4. Mobility in soil

Please contact manufacturer for more details

12.5 Other Adverse effects

No information available.

SECTION 13: Disposal considerations

13.1. Disposal methods

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

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

SECTION 14: Transport Information

Not hazardous for transportation.

Air Transport (IATA) Regulations

UN No Not applicable

Proper Shipping Name Not applicable

Hazard Class/Division Not applicable

Subsidiary Risk Not applicable

Packing Group: Not applicable

Marine Transport (IMDG)

UN No Not applicable

Proper Shipping Name Not applicable

Hazard Class/Division Not applicable

Subsidiary Risk Not applicable

Packing Group: Not applicable

Environmental Hazards: Not applicable

SECTION 15: Regulatory information

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

Global inventory status

Contact 3M for more information.

Applicable Environmental, Health and Safety Regulations

The Manufacture, Storage and Import of Hazardous Chemical Rules, 1989

Central Motor Vehicle Rules, 1989

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

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

SECTION 16: Other information

NFPA Hazard Classification

Health: 0 **Flammability:** 1 **Instability:** 0 **Special Hazards:** None

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

Revision information:

Section 1: Product identification numbers information was modified.

Section 2: Hazard - Other information was modified.

Label: GHS Classification information was modified.

Label: GHS Precautionary - Disposal information was deleted.

Label: Signal Word information was modified.

Label: Symbol information was modified.

Section 2: Ingredient table information was modified.

Section 8: Eye protection information information was added.

Section 8: Eye/face protection information information was deleted.

Section 8: Occupational exposure limit table information was modified.

Section 8: Personal Protection - Eye information information was deleted.

Section 9: Flammability (solid, gas) information information was deleted.

Section 09: Flammability information information was added.

Section 09: Kinematic Viscosity information information was added.

Section 09: Nanoparticle information was deleted.

Section 09: Particle Characteristics N/A information was added.

Section 09: Percent Volatile information was modified.

Section 09: Viscosity information was deleted.

Section 09: VOC Less H₂O & Exempt Solvents information was modified.

Section 09: Volatile Organic Compounds information was modified.

Section 11: Acute Toxicity table information was modified.

Section 11: Aspiration Hazard Table information was added.

Section 11: Aspiration Hazard text information was deleted.

Section 11: Germ Cell Mutagenicity Table information was modified.

Section 11: Serious Eye Damage/Irritation Table information was modified.

Section 11: Skin Corrosion/Irritation Table information was modified.

Section 11: Skin Sensitization Table information was modified.

Section 12: Component ecotoxicity information information was modified.

Section 12: Persistence and Degradability information information was modified.

Section 12: Bioaccumulative potential information information was modified.

Section 13: Standard Phrase Category Waste GHS information was modified.

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