1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

<table>
<thead>
<tr>
<th>Ashland</th>
<th>Regulatory Information Number</th>
<th>1-800-325-3751</th>
</tr>
</thead>
<tbody>
<tr>
<td>P.O. Box 2219</td>
<td>Telephone</td>
<td>614-790-3333</td>
</tr>
<tr>
<td>Columbus, OH 43216</td>
<td>Emergency telephone</td>
<td>1-800-ASHLAND (1-800-274-5263)</td>
</tr>
</tbody>
</table>

Product name: MINERAL SPIRITS RULE 66 DR 55 GA
Product code: VURULE66
Product Use Description: No data

2. HAZARDS IDENTIFICATION

**Emergency Overview**

Appearance: liquid, colourless

CAUTION! COMBUSTIBLE LIQUID AND VAPOR. MAY AFFECT THE CENTRAL NERVOUS SYSTEM CAUSING DIZZINESS, HEADACHE OR NAUSEA. MAY CAUSE RESPIRATORY TRACT IRRITATION. MAY BE HARMFUL IF INHALED OR SWALLOWED. MAY CAUSE SKIN AND RESPIRATORY TRACT IRRITATION. PROLONGED OR REPEATED CONTACT MAY DRY SKIN AND CAUSE DERMATITIS AND BURNS.

**Potential Health Effects**

**Exposure routes**
Inhalation, Skin absorption, Skin contact, Eye Contact, Ingestion

**Eye contact**
May cause mild eye irritation. Symptoms include stinging, tearing, and redness.

**Skin contact**
Can cause skin irritation. Prolonged or repeated contact may dry the skin. Symptoms may include redness, burning, and drying and cracking of skin, burns and other skin damage. Passage of this material into the body through the skin is possible, but it is unlikely that this would result in harmful effects during safe handling and use.
Ingestion

Swallowing small amounts of this material during normal handling is not likely to cause harmful effects. Swallowing large amounts may be harmful. This material can get into the lungs during swallowing or vomiting. This results in lung inflammation and other lung injury.

Inhalation

Breathing of vapor or mist is possible. Breathing small amounts of this material during normal handling is not likely to cause harmful effects. Breathing large amounts may be harmful. Symptoms are not expected at air concentrations below the recommended exposure limits, if applicable (see Section 8.).

Aggravated Medical Condition

Preexisting disorders of the following organs (or organ systems) may be aggravated by exposure to this material:, Skin, lung (for example, asthma-like conditions), immune system

Symptoms

Signs and symptoms of exposure to this material through breathing, swallowing, and/or passage of the material through the skin may include:, stomach or intestinal upset (nausea, vomiting, diarrhea), irritation (nose, throat, airways), central nervous system depression (dizziness, drowsiness, weakness, fatigue, nausea, headache, unconsciousness) and other central nervous system effects, respiratory failure

Target Organs

This material (or a component) has been shown to lower activity of certain immune system cells in experimental animals. The significance of this effect with respect to human health is uncertain., Exposure to this material (or a component) has been found to cause kidney damage in male rats. The mechanism by which this toxicity occurs is specific to the male rat and the kidney effects are not expected to occur in humans., Overexposure to this material (or its components) has been suggested as a cause of the following effects in laboratory animals:, mild, reversible liver effects

Carcinogenicity

This material is not listed as a carcinogen by the International Agency for Research on Cancer (IARC), the National Toxicology Program (NTP), or the Occupational Safety and Health Administration (OSHA).

Reproductive hazard

Based on the available information, risk to the fetus from maternal exposure to this material cannot be assessed.

3. COMPOSITION/INFORMATION ON INGREDIENTS
**4. FIRST AID MEASURES**

**Eyes**
If symptoms develop, move individual away from exposure and into fresh air. Flush eyes gently with water while holding eyelids apart. If symptoms persist or there is any visual difficulty, seek medical attention.

**Skin**
Remove contaminated clothing. Flush exposed area with large amounts of water. If skin is damaged, seek immediate medical attention. If skin is not damaged and symptoms persist, seek medical attention. Launder clothing before reuse.

**Ingestion**
Seek medical attention. If individual is drowsy or unconscious, do not give anything by mouth; place individual on the left side with the head down. Contact a physician, medical facility, or poison control center for advice about whether to induce vomiting. If possible, do not leave individual unattended.

**Inhalation**
If symptoms develop, immediately move individual away from exposure and into fresh air. Seek immediate medical attention; keep person warm and quiet. If person is not breathing, begin artificial respiration. If breathing is difficult, administer oxygen. If symptoms develop, move individual away from exposure and into fresh air. If symptoms persist, seek medical attention. If breathing is difficult, administer oxygen. Keep person warm and quiet; seek immediate medical attention.

**Notes to physician**
- **Hazards:** This material is an aspiration hazard. Potential danger from aspiration must be weighed against possible oral toxicity (See Section 2 - Swallowing) when deciding whether to induce vomiting.
- **Treatment:** No information available.

**5. FIRE-FIGHTING MEASURES**
Suitable extinguishing media
Dry chemical, Foam, Carbon dioxide (CO2)

Hazardous combustion products
Carbon dioxide and carbon monoxide, Hydrocarbons

Precautions for fire-fighting
If product is heated above its flash point it will produce vapors sufficient to support combustion. Vapors are heavier than air and may travel along the ground and be ignited by heat, pilot lights, other flames and ignition sources at locations near the point of release. Never use welding or cutting torch on or near drum (even empty) because product (even just residue) can ignite explosively. Wear full firefighting turn-out gear (full Bunker gear), and respiratory protection (SCBA).

NFPA Flammable and Combustible Liquids Classification
Combustible Liquid Class II

6. ACCIDENTAL RELEASE MEASURES

Personal precautions
For personal protection see section 8. Eliminate all ignition sources (flares, flames including pilot lights, electrical sparks). Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed. Stop spill at source. Prevent from entering drains, sewers, streams or other bodies of water. Prevent from spreading. If runoff occurs, notify authorities as required. Pump or vacuum transfer spilled product to clean containers for recovery. Absorb unrecoverable product. Transfer contaminated absorbent, soil and other materials to containers for disposal. Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed. Eliminate all ignition sources (flares, flames including pilot lights, electrical sparks).

Environmental precautions
Prevent run-off to sewers, streams or other bodies of water. If run-off occurs, notify proper authorities as required, that a spill has occurred.

Methods for cleaning up
Absorb liquid on vermiculite, floor absorbent or other absorbent material.

7. HANDLING AND STORAGE

Handling
Containers of this material may be hazardous when emptied. Since emptied containers retain product residues (vapor, liquid, and/or solid), all hazard precautions given in the data sheet must be observed. Static ignition hazard can result from handling and use. Electrically bond and ground all containers, personnel and equipment before transfer or use of material. Special precautions may be necessary to dissipate static electricity for non-conductive containers. Use proper bonding and grounding during product transfer as described in National Fire Protection Association document NFPA 77. Hydrocarbon solvents are basically non-conductors of electricity and can become electrostatically charged during mixing, filtering or pumping at high flow rates. If this charge reaches a sufficiently high level, sparks can form that may ignite the vapors of flammable liquids. Warning. Sudden release of hot organic chemical vapors or mists from process equipment operating at elevated temperature and pressure, or sudden ingress of air into vacuum equipment, may result in ignitions without the presence of obvious ignition sources. Published "autoignition" or "ignition" temperature values cannot be treated as safe operating temperatures in chemical processes without analysis of the actual process conditions. Any use of this product in elevated temperature processes should be thoroughly evaluated to establish and maintain safe operating conditions.

**Storage**

Do not store near extreme heat, open flame, or sources of ignition.

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**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Exposure Guidelines**

<table>
<thead>
<tr>
<th>MINERAL SPIRITS REGULAR</th>
<th>8052-41-3</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACGIH</td>
<td>time weighted average 100 ppm</td>
</tr>
<tr>
<td>NIOSH</td>
<td>Recommended exposure limit (REL): 350 mg/m³</td>
</tr>
<tr>
<td>NIOSH</td>
<td>Ceiling Limit Value and Time Period (if specified): 1,800 mg/m³</td>
</tr>
<tr>
<td>OSHA Z1</td>
<td>Permissible exposure limit 500 ppm</td>
</tr>
<tr>
<td>OSHA Z1</td>
<td>Permissible exposure limit 2,900 mg/m³</td>
</tr>
<tr>
<td>OSHA Z1A</td>
<td>time weighted average 100 ppm</td>
</tr>
<tr>
<td>OSHA Z1A</td>
<td>time weighted average 525 mg/m³</td>
</tr>
<tr>
<td>US CA OEL</td>
<td>Time Weighted Average (TWA) Permissible Exposure Limit (PEL): 100 ppm</td>
</tr>
<tr>
<td>US CA OEL</td>
<td>Time Weighted Average (TWA) Permissible Exposure Limit (PEL): 525 mg/m³</td>
</tr>
<tr>
<td>TRIMETHYLBENZENE 1,2,4-</td>
<td>95-63-6</td>
</tr>
</tbody>
</table>
NIOSH Recommended exposure limit (REL): 25 ppm
NIOSH Recommended exposure limit (REL): 125 mg/m3
ACGIH time weighted average: 25 ppm
OSHA Z1A time weighted average: 25 ppm
OSHA Z1A time weighted average: 125 mg/m3
US CA OEL Time Weighted Average (TWA) Permissible Exposure Limit (PEL): 25 ppm
US CA OEL Time Weighted Average (TWA) Permissible Exposure Limit (PEL): 125 mg/m3

General advice
These recommendations provide general guidance for handling this product. Personal protective equipment should be selected for individual applications and should consider factors which affect exposure potential, such as handling practices, chemical concentrations and ventilation. It is ultimately the responsibility of the employer to follow regulatory guidelines established by local authorities.

Exposure controls
Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below TLV(s).

Eye protection
Chemical splash goggles in compliance with OSHA regulations are advised; however, OSHA regulations also permit other type safety glasses. Consult your safety representative.

Skin and body protection
Wear resistant gloves (consult your safety equipment supplier).
To prevent repeated or prolonged skin contact, wear impervious clothing and boots.

Respiratory protection
If workplace exposure limit(s) of product or any component is exceeded (see exposure guidelines), a NIOSH-approved air supplied respirator is advised in absence of proper environmental control. OSHA regulations also permit other NIOSH respirators (negative pressure type) under specified conditions (see your industrial hygienist). Engineering or administrative controls should be implemented to reduce exposure.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state: liquid
### 10. STABILITY AND REACTIVITY

**Stability**

Stable.

**Conditions to avoid**

None known.

**Incompatible products**

Strong oxidizing agents
Hazardous decomposition products
  carbon dioxide and carbon monoxide, Hydrocarbons

Hazardous reactions
  Product will not undergo hazardous polymerization.

Thermal decomposition
  No data

11. TOXICOLOGICAL INFORMATION

Acute oral toxicity
  LD 50  Rat : > 5 g/kg

Acute inhalation toxicity
  MINERAL SPIRITS REGULAR : no data available
  TRIMETHYLBENZENE 1,2,4- : LC 50 Rat: 18 g/m3; 4 h
  LC 50 Rat: > 2,000 mg/L; 48 h

Acute dermal toxicity
  LD 50  Rabbit: (> ) 3 g/kg

12. ECOLOGICAL INFORMATION

Biodegradability
  MINERAL SPIRITS REGULAR : no data available
  TRIMETHYLBENZENE 1,2,4- : no data available

Bioaccumulation
  MINERAL SPIRITS REGULAR : no data available
  TRIMETHYLBENZENE 1,2,4- : no data available

Ecotoxicity effects

Toxicity to fish
  MINERAL SPIRITS REGULAR : no data available
TRIMETHYLBENZENE 1,2,4- : 96 h flow-through test LC 50 Fathead minnow (Pimephales promelas): 7.19 - 8.28 mg/L Method: Flow through; Mortality

Toxicity to daphnia and other aquatic invertebrates.

MINERAL SPIRITS REGULAR : no data available
TRIMETHYLBENZENE 1,2,4- : no data available

Toxicity to algae

MINERAL SPIRITS REGULAR : no data available
TRIMETHYLBENZENE 1,2,4- : no data available

Toxicity to bacteria

MINERAL SPIRITS REGULAR : no data available
TRIMETHYLBENZENE 1,2,4- : no data available

Biochemical Oxygen Demand (BOD)

MINERAL SPIRITS REGULAR : no data available
TRIMETHYLBENZENE 1,2,4- : no data available

Chemical Oxygen Demand (COD)

MINERAL SPIRITS REGULAR : no data available
TRIMETHYLBENZENE 1,2,4- : no data available

Additional ecological information

MINERAL SPIRITS REGULAR : no data available
TRIMETHYLBENZENE 1,2,4- : no data available
13. DISPOSAL CONSIDERATIONS

**Waste disposal methods**

Dispose of in accordance with all applicable local, state and federal regulations. Do not discharge effluent containing this product into lakes, streams, ponds or estuaries, oceans, or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit, and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance, contact your State Water Board or Regional Office of the EPA. For assistance with your waste management needs - including disposal, recycling and waste stream reduction, contact Ashland Distribution's Environmental Services Group at 800-637-7922.

14. TRANSPORT INFORMATION

<table>
<thead>
<tr>
<th>REGULATION</th>
<th>PROPER SHIPPING NAME</th>
<th>*HAZARD CLASS</th>
<th>SUBSIDIARY HAZARDS</th>
<th>PACKING GROUP</th>
<th>MARINE POLLUTANT / LTD. QTY.</th>
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</thead>
<tbody>
<tr>
<td>U.S. DOT - ROAD</td>
<td>Not dangerous goods</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>U.S. DOT - RAIL</td>
<td>Not dangerous goods</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>U.S. DOT - INLAND WATERWAYS</td>
<td>Not dangerous goods</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TRANSPORT CANADA - ROAD</td>
<td>Not dangerous goods</td>
<td></td>
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<td></td>
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<tr>
<td>TRANSPORT CANADA - RAIL</td>
<td>Not dangerous goods</td>
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<tr>
<td>TRANSPORT CANADA - INLAND WATERWAYS</td>
<td>Not dangerous goods</td>
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</table>

INTERNATIONAL MARITIME DANGEROUS GOODS

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<th>UN</th>
<th>PETROLEUM DISTILLATES, N.O.S.</th>
<th>III</th>
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<tbody>
<tr>
<td>1268</td>
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<td></td>
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</table>
INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO

<table>
<thead>
<tr>
<th>UN</th>
<th>Code</th>
<th>Description</th>
<th>Class</th>
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<tbody>
<tr>
<td>1268</td>
<td>Petroleum</td>
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INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER

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<tbody>
<tr>
<td>1268</td>
<td>Petroleum</td>
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MEXICAN REGULATION FOR THE LAND TRANSPORT OF HAZARDOUS MATERIALS AND WASTES

<table>
<thead>
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<tr>
<td>1268</td>
<td>DESTILADOS</td>
<td>DE PETROLEO,</td>
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<tr>
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<td>N.E.P.</td>
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</tbody>
</table>

*ORM = ORM-D, CBL = COMBUSTIBLE LIQUID

Dangerous goods descriptions (if indicated above) may not reflect quantity, end-use or region-specific exceptions that can be applied. Consult shipping documents for descriptions that are specific to the shipment.

15. REGULATORY INFORMATION

California Prop. 65

| WARNING! This product contains a chemical known to the State of California to cause cancer. | ETHYL BENZENE, NAPHTHALENE, BENZENE |
| WARNING! This product contains a chemical known to the State of California to cause birth defects or other reproductive harm. | TOLUENE, BENZENE |

SARA 313 Component(s)

| TRIMETHYLBENZENE 1,2,4- | 1.90 % |

New Jersey RTK Label Information

| MINERAL SPIRITS REGULAR | 8052-41-3 |
| TRIMETHYLBENZENE 1,2,4- | 95-63-6   |

Pennsylvania RTK Label Information

| MINERAL SPIRITS REGULAR | 8052-41-3 |
| TRIMETHYLBENZENE 1,2,4- | 95-63-6   |
Notification status

Australia. Industrial Chemical (Notification and Assessment) Act
Switzerland. Consolidated Inventory
Canada. Canadian Environmental Protection Act (CEPA).
China. Inventory of Existing Chemical Substances
US. Toxic Substances Control Act
EU. EINECS
Korea. Toxic Chemical Control Law (TCCL) List
Philippines. The Toxic Substances and Hazardous and Nuclear Waste Control Act
Japan. Kashin-Hou Law List
Japan. Kashin-Hou Law List
Japan. Industrial Safety & Health Law (ISHL) List
New Zealand. Inventory of Chemicals (NZIoC), as published by ERMA New Zealand

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<th>HMIS</th>
<th>NFPA</th>
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<tr>
<td>Health</td>
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<tr>
<td>Flammability</td>
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<tr>
<td>Physical hazards</td>
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<td>Instability</td>
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<tr>
<td>Specific Hazard</td>
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</table>

16. OTHER INFORMATION

The information accumulated herein is believed to be accurate but is not warranted to be whether originating with the company or not. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances. This MSDS has been prepared by Ashland's Environmental Health and Safety Department (1-800-325-3751).