1. Product And Company Identification

Product Name: IDQ MRL-3

Responsible Party: IDQ Operating, Inc.
44 Old Ridgebury Road
Suite 300
Danbury, CT 06810

Information Phone Number: +1 203-205-2900
Emergency Phone Number:
For Medical Emergencies, call 1-866-949-6465 / +1 303-389-1332 (Outside US and Canada)
For Transportation Emergencies, call 1-800-424-9300 (Chemtrec) +1-703-527-3887 for
Outside US and Canada (call collect)

SDS Date Of Preparation: 06/01/2015

Product Use and Uses Advised Against: Automotive maintenance product – For consumer and professional use

2. Hazards Identification

Note: This product is a consumer product and is labeled in accordance with the Consumer Product Safety Commission regulations and not OSHA regulations. The requirements for the labeling of consumer products take precedence over OSHA labeling so the actual product label will not contain the OSHA label elements shown below on this SDS.

GHS Classification:

<table>
<thead>
<tr>
<th>Physical:</th>
<th>Health:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flammable Aerosol Category 1</td>
<td>Acute Toxicity Category 3 (Inhalation)</td>
</tr>
<tr>
<td>Gases Under Pressure: Compressed Gas</td>
<td>Acute Toxicity Category 4 (Oral, and Dermal)</td>
</tr>
<tr>
<td></td>
<td>Carcinogen Category 1B</td>
</tr>
<tr>
<td></td>
<td>Eye Corrosion Category 1</td>
</tr>
<tr>
<td></td>
<td>Skin sensitizer Category 1</td>
</tr>
<tr>
<td></td>
<td>Specific Target Organ Toxicity Single Exposure Category 1</td>
</tr>
</tbody>
</table>

GHS Label Elements:

Danger!

<table>
<thead>
<tr>
<th>Statements of Hazard</th>
<th>Prevention</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contains gas under pressure; may explode if heated.</td>
<td>Obtain special instructions before use.</td>
</tr>
<tr>
<td>Extremely flammable aerosol</td>
<td>Do not handle until all safety precautions have been read and understood.</td>
</tr>
<tr>
<td>Toxic if inhaled.</td>
<td>Do not breathe dust, fume, gas, mist, vapors or spray.</td>
</tr>
<tr>
<td>Harmful if swallowed.</td>
<td></td>
</tr>
</tbody>
</table>
Statements of hazard continued.  
Harmful in contact with skin.  
Causes serious eye damage.  
May cause an allergic skin reaction.  
May cause cancer.

Precautionary phrases continued.  
Wash thoroughly after handling.  
Do not eat, drink or smoke when using this product.  
Use only outdoors or in a well-ventilated area.  
Contaminated work clothing should not be allowed out of the workplace.  
Wear eye protection, protective gloves and protective clothing.  
IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell.  
Rinse mouth.  
IF ON SKIN: Wash with plenty of soap and water.  
If skin irritation or rash occurs: Get medical attention.  
Call a POISON CENTER or doctor if you feel unwell.  
Take off contaminated clothing and wash it before reuse.

Precautionary phrases continued.  
IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
Call a POISON CENTER or doctor.  
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
Immediately call a POISON CENTER or doctor.  
IF exposed or concerned: Get medical attention.  
Store in a well-ventilated place. Keep container tightly closed.  
Store locked up.  
Protect from sunlight. Do not exposure to temperatures exceeding 50°C / 122°F.  
Dispose of contents and container in accordance with local and national regulations.

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### 3. Composition/Information On Ingredients

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS No.</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,1,1,2-tetrafluoroethane</td>
<td>811-97-2</td>
<td>70-90%</td>
</tr>
<tr>
<td>Methanol</td>
<td>67-56-1</td>
<td>10-15%</td>
</tr>
<tr>
<td>Polyalkylene glycol monobutyl ether</td>
<td>Proprietary</td>
<td>10-15%</td>
</tr>
<tr>
<td>vinyltrimethoxysilane</td>
<td>2768-02-7</td>
<td>10-15%</td>
</tr>
<tr>
<td>N-beta-(amino ethyl)-gamma-aminopropytrimethoxysilane</td>
<td>1760-24-3</td>
<td>5-10%</td>
</tr>
<tr>
<td>N,N'-Bis(3-trimethoxysilylpropyl)-1,2-ethanediamine</td>
<td>68845-16-9</td>
<td>1-5%</td>
</tr>
<tr>
<td>Methylene chloride</td>
<td>75-09-2</td>
<td>&lt;1%</td>
</tr>
</tbody>
</table>

The exact concentrations are a trade secret.

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### 4. First Aid Measures

**Inhalation:** If symptoms of exposure develop, remove to fresh air. Seek medical attention if breathing problem or irritation persists.

**Skin Contact:** Wash exposed skin with soap and water. If skin irritation or rash develops, seek medical attention.

**Eye Contact:** Flush eyes with large amounts of water for 20 minutes. If irritation or other symptoms develop, seek medical attention.

**Ingestion:** Ingestion is an unlikely route exposure for aerosol products. However, if ingestion should occur, seek immediate medical attention.
Most Important Symptoms: Causes severe eye irritation and possible damage. Methyl Alcohol may be absorbed through the skin in harmful amounts. May cause an allergic skin reaction in some individuals. Toxic if inhaled. Mists may cause mild respiratory irritation. Exposure to high concentrations can induce anesthetic effects progressing from dizziness, weakness, nausea, to unconsciousness. May cause cancer. Harmful if swallowed. If ingested, may cause abdominal discomfort or pain, nausea, vomiting, dizziness, drowsiness, headache, blurring of vision, and central nervous system effects. Visual effects from methanol include blurred vision, double vision, changes in color perception, restriction of visual fields and complete blindness.

Indication of Immediate Medical Attention/Special Treatment: Immediate medical attention is required for eye contact. Seek immediate medical attention in the unlikely event that this product is ingested.

5. Firefighting Measures

Suitable (and Unsuitable) Extinguishing Media: Use water fog, carbon dioxide, alcohol foam, or dry chemical. Cool fire exposed containers with water.

Specific Hazards Arising from the Chemical: Extremely flammable aerosol. Contents under pressure. Exposure of containers to heat and flames can cause them to rupture often with violent force. Burning may produce oxides of carbon and fluoride; and hydrogen fluoride.

Special Fire Fighting Procedures: Firefighters should always wear positive pressure self-contained breathing apparatus and full protective clothing. Cool fire-exposed containers with water. Use shielding to protect against bursting cans.

6: Accidental Release Measures

Personal Precautions, Protective Equipment, and Emergency Procedures: Eliminate all ignition sources. Ventilate area. Wear appropriate protective clothing and equipment.

Methods and Materials for Containment and Clean-Up: Place leaking can in a pail in a well-ventilated area until pressure has dissipated. Collect residual liquid using inert absorbents and place into a suitable container for disposal.

Environmental Precautions: Report release as required by local and national regulations.

7. Handling and Storage

Precautions for Safe Handling: Avoid contact with eyes and skin. Avoid breathing aerosol or gas. Use only with adequate ventilation. Wash thoroughly with soap and water after handling. Contents under pressure, do not puncture or incinerate containers. Refer to OSHA 1910.1052 (methylene chloride standard) for additional requirements.

Conditions for Safe Storage, Including any Incompatibilities: Store in a cool, well-ventilated area, away from incompatible materials. Keep away from heat, sparks, open flames and all other sources of ignition. Do not store in direct sunlight or above 120°F.
8. Exposure Controls / Personal Protection

Exposure Guidelines:

<table>
<thead>
<tr>
<th>CHEMICAL</th>
<th>EXPOSURE LIMIT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,1,1,2-tetrafluoroethane</td>
<td>1000 ppm TWA AIHA WEELs</td>
</tr>
<tr>
<td>Methanol</td>
<td>200 ppm TWA OSHA PEL</td>
</tr>
<tr>
<td></td>
<td>200 ppm TWA ACGIH TLV skin</td>
</tr>
<tr>
<td></td>
<td>250 ppm STEL ACGIH TLV</td>
</tr>
<tr>
<td>Polyalkylene glycol monobutyl ether</td>
<td>None established</td>
</tr>
<tr>
<td>Vinyltrimethoxysilane</td>
<td>None established</td>
</tr>
<tr>
<td>N-beta-(aminoethyl)-gamma-aminopropyltrimethoxysilane</td>
<td>None established</td>
</tr>
<tr>
<td>N,N'-Bis(3-trimethoxysilylpropyl)-1,2-ethanediame</td>
<td>None established</td>
</tr>
<tr>
<td>Methylene chloride</td>
<td>50 ppm TWA ACGIH TLV</td>
</tr>
<tr>
<td></td>
<td>25 ppm TWA, 125 STEL OSHA PEL</td>
</tr>
</tbody>
</table>

Appropriate Engineering Controls: General ventilation should be adequate for normal use. For operations where the exposure limits may be exceeded, forced ventilation such as local exhaust may be needed to maintain exposures below applicable limits.

Personal Protective Equipment

Respiratory Protection: None under normal use conditions. For operations where the exposure limits may be exceeded, a NIOSH approved supplied air respirators recommended. Equipment selection depends on contaminant type and concentration. Select in accordance with 29 CFR 1910.134 and 1910.1052; all applicable laws and regulations; and good industrial hygiene practice.

Gloves: Wear impervious gloves to avoid skin contact.

Eye Protection: Splash proof goggles are recommended to prevent eye contact.

Other Protective Equipment/Clothing: Appropriate protective clothing as needed to minimize skin contact.

9. Physical and Chemical Properties

Appearance And Odor: Reddish liquid in aerosol can with ethereal odor.

<table>
<thead>
<tr>
<th>Physical State: Liquid-based aerosol</th>
<th>Odor Threshold: Not available</th>
</tr>
</thead>
<tbody>
<tr>
<td>pH: ~ 7</td>
<td>Specific Gravity: 0.994</td>
</tr>
<tr>
<td>Initial Boiling Point/Range: -26.5°C @ 736 mm Hg (1,1,1,2-tetrafluoroethane)</td>
<td>Vapor Pressure: 4268mm Hg at 20°C</td>
</tr>
<tr>
<td>Melting/Freezing Point: -15.7 °F (&lt;-26.5°C)</td>
<td>Vapor Density: (Air = 1) 3.3</td>
</tr>
<tr>
<td>Solubility In Water: Slightly soluble.</td>
<td>Percent Volatile: &gt;50%</td>
</tr>
<tr>
<td>Viscosity: 25 CP @ 20° C</td>
<td>Evaporation Rate:</td>
</tr>
</tbody>
</table>

IDQ MRL-3
IDQ Operating, Inc.
44 Old Ridgebury Road
Suite 300
Danbury, CT 06810
Tel. 1-203-205-2900

| Decomposition Temperature: | Not available |
| Decomposition Temperature: | (n-butyl acetate = 1.0) > 120 |
| VOC Content: | Not determined |
| Coefficient Of Water/Oil Distribution: | Not determined |
| Autoignition Temp: | >662°F (>350°C) |
| Flash Point: | Not applicable |
| Flame extension: | Not determined |
| Flammability Limits: | LEL: Not determined |
| Flammability (solid, gas): | Not applicable |

10. Stability and Reactivity

Reactivity: Not normally reactive
Chemical Stability: Stable under normal storage and handling conditions
Conditions to Avoid: Keep away from excessive heat, and open flames. Containers may rupture at temperatures > 120°F (48.8°C)
Incompatible Materials: Strong oxidizing agents.
Hazardous Decomposition Products: Burning may produce oxides of carbon and fluoride; and hydrogen fluoride.

11. Toxicological Information

Potential Health Effects:

Acute Hazards:

Inhalation: Toxic if inhaled. Mists may cause mild respiratory irritation. Exposure to high concentrations can induce anesthetic effects progressing from dizziness, weakness, nausea, to unconsciousness.

Skin Contact: Methyl Alcohol may be absorbed through the skin in harmful amounts. May cause an allergic skin reaction in some individuals.

Eye Contact: Causes severe eye irritation and possible damage.

Ingestion: Ingestion is an unlikely route exposure for aerosol products. Should this product be ingested, it may cause abdominal discomfort or pain, nausea, vomiting, dizziness, drowsiness, headache, blurring of vision, and central nervous system effects. Visual effects from methanol include blurred vision, double vision, changes in color perception, restriction of visual fields and complete blindness.

Chronic Effects: None expected.

Carcinogenicity Listing: Contains methylene chloride which is classified as an OSHA carcinogen, ACGIH - Confirmed animal carcinogen with unknown relevance to humans, NTP - Reasonably anticipated to be a human carcinogen, and IARC 2B - Possibly carcinogenic to humans. None of the other components listed at 0.1% or greater is a carcinogen or potential carcinogen by IARC, NTP, ACGIH or OSHA

Numerical Measures of Toxicity:

Product: LD50 Oral: 375.9 mg/ kg Calculated ATE
LD50 Skin: 1,127.8 mg/ kg Calculated ATE
LD50 Inhalation: 9.73 mg/ L Calculated ATE
1,1,1,2-tetrafluoroethane: LC50 Inhalation Rat: >500,000/4hr.
Methanol: LD50 Oral Rat: 9100 mg/kg
LD50 Skin Rabbit: 15,940 mg/kg
LC50 Inhalation Rat: 145,000 ppm/1 hr.
Polyalkylene glycol monobutyl ether: Not acutely toxic.
Vinyltrimethoxysilane: LD50 Oral Rat: 7.34 ml/kg
LD50 Skin Rabbit: 3.36 ml/kg
LC50 Inhalation Rat: 16.8 mg/L/4 hr. (vapor)
N-beta-(aminoethyl)-gamma-aminopropyltrimethoxysilane:
LD50 Oral Rat: 7.34 mg/kg
LD50 Skin Rabbit: 3.36 ml/kg
LC50 Inhalation Rat: 16.8 mg/L/4 hr. (Aerosol)
N,N'-Bis(3-trimethoxysilylpropyl)-1,2-ethanediame:
LD50 Oral Rat >2,000 mg/kg
LD50 Skin Rat >2,000 mg/kg
Methylene Chloride: LD50 Oral Rat >2,000 mg/kg
LD50 Skin Rat >2,000 mg/kg

12. Ecological Information

Ecotoxicity: No ecotoxicity data is currently available for product.

Methanol: LC50 Fathead minnows 29,400 mg/L/96 hr.
EC50 Daphnia magna >10,000 mg/L/24 hr.
Vinyltrimethoxysilane: LC50 Oncorhynchus mykiss 191 mg/L/96 hr.
EC50 Daphnia magna >10,000 mg/L/48 hr.
N-beta-(aminoethyl)-gamma-aminopropyltrimethoxysilane:
LC50 Danio rerio 597 mg/L/96 hr.
EC50 Daphnia magna 81 mg/L/48 hr.

Persistence and Degradability: No data available for product.

Bio accumulative Potential: No data available for product.
Will not bio concentrate in fish and aquatic organisms.

Mobility in Soil: No data available for product. If released to soil, 1,1,1,2-tetrafluoroethane will rapidly volatilize from either moist or dry soil to the atmosphere. It will display moderate to high mobility in soil.

Other Adverse Effects: Products of decomposition will be highly dispersed and hence will have a very low concentration. It is not a significant contributor to photochemical smog and is not considered to be a VOC. It is not considered as an ozone depleting chemical.

13. Disposal Considerations
Dispose of in accordance with all local, state/provincial and federal regulations. Offer empty containers for recycling.

14. Transport Information

DOT Hazardous Materials Description:

Proper Shipping Name: Receptacles, Small, Containing Gas
Hazard Class: 2.1
Identification Number: UN2037
Packing Group: NA

15. Regulatory Information

United States:

EPA TSCA INVENTORY: All of the components of this material are listed on the Toxic Substances Control Act (TSCA) Chemical Substances Inventory.

CERCLA Section 103: Spills of this product over the RQ (reportable quantity) must be reported to the National Response Center. The RQ for this product, based on the RQ for Methanol (15% maximum) of 5,000 lbs., is 33,333 lbs. Many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations.

SARA Hazard Category (311/312): Acute health, chronic health, fire hazard, sudden release of pressure.

SARA 313: This product contains the following chemicals subject to Annual Release Reporting Requirements Under SARA Title III, Section 313 (40 CFR 372):
Methylene Chloride CAS# 75-09-2 at < 1%
Methanol CAS# 67-56-1 at 15%

16. Other Information

NFPA Rating (NFPA 704): Health: 3 Fire: 4 Instability: 0
HMIS Rating: Health: 3* Fire: 4 Physical Hazard: 0

REVISION SUMMARY: New SDS

DATA SUPPLIED IS FOR USE ONLY IN CONNECTION WITH OCCUPATIONAL SAFETY AND HEALTH