MATERIAL SAFETY DATA SHEET

TF20000 SERIES

SECTION 1 — PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NUMBER
TF20000 SERIES

PRODUCT NAME
TRI-FLOW® Industrial Lubricant, TF20005,20006,20009,20025

MANUFACTURER'S NAME
Tri-Flow Industrial Group
Cleveland, OH 44115

SECTION 2 — COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>% by Weight</th>
<th>CAS Number</th>
<th>Ingredient</th>
<th>Units</th>
<th>Vapor Pressure</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>74-98-6</td>
<td>Propane</td>
<td>ACGIH TLV</td>
<td>1000 PPM</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>OSHA PEL</td>
<td>1000 PPM</td>
</tr>
<tr>
<td></td>
<td>106-97-8</td>
<td>Butane</td>
<td>ACGIH TLV</td>
<td>1000 PPM</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>OSHA PEL</td>
<td>800 PPM</td>
</tr>
<tr>
<td>24</td>
<td>64742-47-8</td>
<td>Aliphatic Solvent</td>
<td>ACGIH TLV</td>
<td>Not Available</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>OSHA PEL</td>
<td>Not Available</td>
</tr>
<tr>
<td>41</td>
<td>64742-52-5</td>
<td>Heavy Naphthenic Petroleum Oil</td>
<td>ACGIH TLV</td>
<td>5 mg/m3 as Mist</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>OSHA PEL</td>
<td>5 mg/m3 as Mist</td>
</tr>
<tr>
<td>3</td>
<td>64742-65-0</td>
<td>Heavy Paraffinic Oil</td>
<td>ACGIH TLV</td>
<td>5 mg/m3 as Mist</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>OSHA PEL</td>
<td>5 mg/m3 as Mist</td>
</tr>
<tr>
<td>2</td>
<td>628-63-7</td>
<td>Amyl Acetate</td>
<td>ACGIH TLV</td>
<td>100 PPM</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>OSHA PEL</td>
<td>100 PPM</td>
</tr>
</tbody>
</table>

SECTION 3 — HAZARDS IDENTIFICATION

ROUTES OF EXPOSURE
INHALATION of vapor or spray mist.
EYE or SKIN contact with the product, vapor or spray mist.

EFFECTS OF OVEREXPOSURE
EYES: Irritation.
SKIN: Prolonged or repeated exposure may cause irritation.
INHALATION: Irritation of the upper respiratory system.

May cause nervous system depression. Extreme overexposure may result in unconsciousness and possibly death.

SIGNS AND SYMPTOMS OF OVEREXPOSURE
Headache, dizziness, nausea, and loss of coordination are indications of excessive exposure to vapors or spray mists.
Redness and itching or burning sensation may indicate eye or excessive skin exposure.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE
None generally recognized.

CANCER INFORMATION
For complete discussion of toxicology data refer to Section 11.
SECTION 4 — FIRST AID MEASURES

**EYES:**  Flush eyes with large amounts of water for 15 minutes. Get medical attention.

**SKIN:**  Wash affected area thoroughly with soap and water.

**INHALATION:**  If affected, remove from exposure. Restore breathing. Keep warm and quiet.

**INGESTION:**  Do not induce vomiting. Get medical attention immediately.

SECTION 5 — FIRE FIGHTING MEASURES

<table>
<thead>
<tr>
<th>FLASH POINT</th>
<th>LEL</th>
<th>UEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Propellant &lt; 0 °F</td>
<td>0.7</td>
<td>9.5</td>
</tr>
</tbody>
</table>

**EXTINGUISHING MEDIA**
Carbon Dioxide, Dry Chemical, Foam

**UNUSUAL FIRE AND EXPLOSION HAZARDS**
Containers may explode when exposed to extreme heat.
Application to hot surfaces requires special precautions.
During emergency conditions overexposure to decomposition products may cause a health hazard. Symptoms may not be immediately apparent. Obtain medical attention.

**SPECIAL FIRE FIGHTING PROCEDURES**
Full protective equipment including self-contained breathing apparatus should be used.
Water spray may be ineffective. If water is used, fog nozzles are preferable. Water may be used to cool closed containers to prevent pressure build-up and possible autoignition or explosion when exposed to extreme heat.

SECTION 6 — ACCIDENTAL RELEASE MEASURES

**STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED**
Remove all sources of ignition. Ventilate the area.
Remove with inert absorbent.

SECTION 7 — HANDLING AND STORAGE

**STORAGE CATEGORY**
Not Available

**PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE**
Keep away from heat, sparks, and open flame. Vapors will accumulate readily and may ignite explosively.
During use and until all vapors are gone: Keep area ventilated - Do not smoke - Extinguish all flames, pilot lights, and heaters - Turn off electric tools and appliances, and any other sources of ignition.
Consult NFPA Code. Use approved Bonding and Grounding procedures.
Contents under pressure. Do not puncture, incinerate, or expose to temperature above 120°F. Heat from sunlight, radiators, stoves, hot water, and other heat sources could cause container to burst. Do not take internally. Keep out of the reach of children.

SECTION 8 — EXPOSURE CONTROLS/PERSONAL PROTECTION

**PRECAUTIONS TO BE TAKEN IN USE**
Use only with adequate ventilation.
Avoid contact with skin and eyes. Avoid breathing vapor and spray mist.
Wash hands after using.

**VENTILATION**
Local exhaust preferable. General exhaust acceptable if the exposure to materials in Section 2 is maintained below applicable exposure limits. Refer to OSHA Standards 1910.94, 1910.107, 1910.108.

**RESPIRATORY PROTECTION**
If personal exposure cannot be controlled below applicable limits by ventilation, wear a properly fitted organic vapor/particulate respirator approved by NIOSH/MSHA for protection against materials in Section 2.

**PROTECTIVE GLOVES**
None required for normal application of aerosol products where minimal skin contact is expected. For long or repeated contact, wear chemical resistant gloves.

**EYE PROTECTION**
Wear safety spectacles with unperforated sideshields.

**OTHER PRECAUTIONS**
Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal.
SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES

- PRODUCT WEIGHT: 6.47 lb/gal, 774 g/l
- SPECIFIC GRAVITY: 0.78
- BOILING POINT: <0 - 460 °F, < -18 - 237 °C
- MELTING POINT: Not Available
- VOLATILE VOLUME: 55%
- EVAPORATION RATE: Faster than ether
- VAPOR DENSITY: Heavier than air
- SOLUBILITY IN WATER: Not Available

VOLATILE ORGANIC COMPOUNDS (VOC Theoretical - As Packaged)

Volatile Weight: 46.26%
Less Water and Federally Exempt Solvents

SECTION 10 — STABILITY AND REACTIVITY

STABILITY — Stable
CONDITIONS TO AVOID
None known.
INCOMPATIBILITY
None known.
HAZARDOUS DECOMPOSITION PRODUCTS
By fire: Carbon Dioxide, Carbon Monoxide
HAZARDOUS POLYMERIZATION
Will not occur

SECTION 11 — TOXICOLOGICAL INFORMATION

CHRONIC HEALTH HAZARDS
No ingredient in this product is an IARC, NTP or OSHA listed carcinogen.
Reports have associated repeated and prolonged overexposure to solvents with permanent brain and nervous system damage.

TOXICOLOGY DATA

<table>
<thead>
<tr>
<th>CAS No.</th>
<th>Ingredient Name</th>
<th>LC50 RAT</th>
<th>LD50 RAT</th>
<th>4HR</th>
<th>Not Available</th>
<th>Not Available</th>
</tr>
</thead>
<tbody>
<tr>
<td>74-98-6</td>
<td>Propane</td>
<td></td>
<td></td>
<td>4HR</td>
<td>Not Available</td>
<td>Not Available</td>
</tr>
<tr>
<td>106-97-8</td>
<td>Butane</td>
<td></td>
<td></td>
<td>4HR</td>
<td>Not Available</td>
<td>Not Available</td>
</tr>
<tr>
<td>64742-47-8</td>
<td>Aliphatic Solvent</td>
<td></td>
<td></td>
<td>4HR</td>
<td>Not Available</td>
<td>Not Available</td>
</tr>
<tr>
<td>64742-52-5</td>
<td>Heavy Naphthenic Petroleum Oil</td>
<td></td>
<td></td>
<td>4HR</td>
<td>Not Available</td>
<td>Not Available</td>
</tr>
<tr>
<td>64742-65-0</td>
<td>Heavy Paraffinic Oil</td>
<td></td>
<td></td>
<td>4HR</td>
<td>Not Available</td>
<td>Not Available</td>
</tr>
<tr>
<td>628-63-7</td>
<td>Amyl Acetate</td>
<td></td>
<td></td>
<td>4HR</td>
<td>Not Available</td>
<td>6500 mg/kg</td>
</tr>
</tbody>
</table>

SECTION 12 — ECOLOGICAL INFORMATION

ECOTOXICOLOGICAL INFORMATION
No data available.

SECTION 13 — DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD
Waste from this product may be hazardous as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261.
Waste must be tested for ignitability to determine the applicable EPA hazardous waste numbers.
Do not incinerate. Depressurize container. Dispose of in accordance with Federal, State/Provincial, and Local regulations regarding pollution.
SECTION 14 — TRANSPORT INFORMATION

Multi-modal shipping descriptions are provided for informational purposes and do not consider container sizes. The presence of a shipping description for a particular mode of transport (ocean, air, etc.), does not indicate that the product is packaged suitably for that mode of transport. All packaging must be reviewed for suitability prior to shipment, and compliance with the applicable regulations is the sole responsibility of the person offering the product for transport.

US Ground (DOT)
May be classed as LTD. QTY. OR ORM-D
UN1950, AEROSOLS, 2.1, LIMITED QUANTITY, (ERG#126)

Canada (TDG)
May be classed as LTD. QTY. OR ORM-D
UN1950, AEROSOLS, 2.1, LIMITED QUANTITY, (ERG#126)

IMO
May be shipped as Limited Quantity
UN1950, AEROSOLS, 2.1, LIMITED QUANTITY, EmS F-D, S-U

IATA/ICAO
UN1950, AEROSOLS, FLAMMABLE, 2.1, LIMITED QUANTITY

SECTION 15 — REGULATORY INFORMATION

SARA 313 (40 CFR 372.65C) SUPPLIER NOTIFICATION

<table>
<thead>
<tr>
<th>CAS No.</th>
<th>CHEMICAL/COMPOUND</th>
<th>% by WT</th>
<th>% Element</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Barium Compound</td>
<td>2</td>
<td>0.06</td>
</tr>
</tbody>
</table>

CALIFORNIA PROPOSITION 65

WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

TSCA CERTIFICATION
All chemicals in this product are listed, or are exempt from listing, on the TSCA Inventory.

SECTION 16 — OTHER INFORMATION

This product has been classified in accordance with the hazard criteria of the Canadian Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

The above information pertains to this product as currently formulated, and is based on the information available at this time. Addition of reducers or other additives to this product may substantially alter the composition and hazards of the product. Since conditions of use are outside our control, we make no warranties, express or implied, and assume no liability in connection with any use of this information.