1. Identification

Product identifier  
24ANF-1  
METALWORKING FLUID ADDITIVE

Other means of identification  
SDS number Not applicable

Recommended use  
METALWORKING FLUID ADDITIVE

Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information

Manufacturer  
Company name CIMCOOL® Industrial Products LLC  
3000 Disney Street  
Cincinnati, Ohio 45209

Telephone (General Information)  
513-458-8100

Emergency telephone number  
1-800-424-9300 (CHEMTREC)

Emergency telephone number (outside USA)  
1-703-527-3887 (CHEMTREC)

2. Hazard(s) identification

Physical hazards Not classified.

Health hazards  
Serious eye damage/eye irritation Category 2

Specific target organ toxicity, repeated exposure Category 1

Environmental hazards Not classified.

OSHA defined hazards Not classified.

Label elements

Signal word Danger

Hazard statement Causes serious eye irritation. Causes damage to organs through prolonged or repeated exposure.

Precautionary statement

Prevention  
Do not breathe mist or vapor. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Wear protective gloves/protective clothing/eye protection/face protection.

Response  
IF exposed or if you feel unwell: Call a POISON CENTER or doctor/physician. 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: Gently wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention. IF INHALED: Call a POISON CENTER or doctor/physician if you feel unwell. IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Collect spillage.

Storage  
Store in a well-ventilated place. Keep container tightly closed. Protect from sunlight. Store away from incompatible materials. Store in accordance with local/regional/national/international regulation.

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

Hazard(s) not otherwise classified (HNOC) None known.

Supplemental information None.
3. Composition/information on ingredients

Mixtures

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Common name and synonyms</th>
<th>CAS number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>5-DECYNE-4,7-DIOL, 2,4,7,9-TETRAMETHYL-</td>
<td></td>
<td>126-86-3</td>
<td>7 - 13</td>
</tr>
<tr>
<td>ETHYLENE GLYCOL</td>
<td></td>
<td>107-21-1</td>
<td>0.5 - 1.5</td>
</tr>
<tr>
<td>Other components below reportable levels</td>
<td></td>
<td></td>
<td>60 - 100</td>
</tr>
</tbody>
</table>

*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First-aid measures

**Inhalation**
If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell. Under normal conditions of intended use, this material is not expected to be an inhalation hazard.

**Skin contact**
Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. If skin irritation occurs: Get medical advice/attention. Wash contaminated clothing before reuse.

**Eye contact**
Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

**Ingestion**
Rinse mouth thoroughly. Drink 1 or 2 glasses of water. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn’t get into the lungs. Get medical advice/attention if you feel unwell.

**Most important symptoms/effects, acute and delayed**
Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Prolonged exposure may cause chronic effects.

**Indication of immediate medical attention and special treatment needed**
Provide general supportive measures and treat symptomatically. Symptoms may be delayed.

**General information**
If exposed or concerned: Get medical advice/attention. Show this safety data sheet to the doctor in attendance.

5. Fire-fighting measures

**Suitable extinguishing media**
Foam. Dry chemical powder. Carbon dioxide (CO2). Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Unsuitable extinguishing media**
Do not use water jet as an extinguisher, as this will spread the fire.

**Specific hazards arising from the chemical**
During fire, gases hazardous to health may be formed.

**Special protective equipment and precautions for firefighters**
Wear suitable protective equipment.

**Fire fighting equipment/instructions**
Use standard firefighting procedures and consider the hazards of other involved materials. Move containers from fire area if you can do so without risk.

**Specific methods**
Use standard firefighting procedures and consider the hazards of other involved materials. In the event of fire and/or explosion do not breathe fumes.

**General fire hazards**
No unusual fire or explosion hazards noted.

6. Accidental release measures

**Personal precautions, protective equipment and emergency procedures**
Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up

Local authorities should be advised if significant spillages cannot be contained. This product is miscible in water.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Clean up in accordance with all applicable regulations. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Environmental precautions

Avoid discharge into drains, water courses or onto the ground. Contact local authorities in case of spillage to drain/aquatic environment. Use appropriate containment to avoid environmental contamination.

7. Handling and storage

Precautions for safe handling

Do not cut, weld, solder, drill, grind, or expose containers to heat, flame, sparks, or other sources of ignition. Do not breathe mist or vapor. Avoid contact with eyes. Avoid prolonged exposure. When using, do not eat, drink or smoke. Provide adequate ventilation. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities

To maintain product quality, do not store in heat or direct sunlight. Store in original tightly closed container. Room temperature - normal conditions. Store away from incompatible materials (see Section 10 of the SDS). Keep this material away from food, drink and animal feed. Do not allow material to freeze. If frozen, product may separate. Thaw completely at room temperature and stir thoroughly prior to use.

8. Exposure controls/personal protection

Occupational exposure limits

US. ACGIH Threshold Limit Values

<table>
<thead>
<tr>
<th>Value Form</th>
<th>Type</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ceiling 100 mg/m3 Aerosol.</td>
<td>ETHYLENE GLYCOL (CAS 107-21-1)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Appropriate engineering controls

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Provide eyewash station. Eye wash fountain and emergency showers are recommended.

Individual protection measures, such as personal protective equipment

Eye/face protection

Wear safety glasses with side shields (or goggles). Do not get in eyes. Eye wash fountain is recommended.

Skin protection

Hand protection

Use protective gloves made of: Nitrile.

Other

Wear suitable protective clothing and gloves.

Respiratory protection

In case of insufficient ventilation, wear suitable respiratory equipment.

Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

When using, do not eat, drink or smoke. Do not get in eyes, on skin, on clothing. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance

TRANSLUCENT

Physical state

Liquid.

Form

Liquid.

Color

Not available.

Odor

CHEMICAL

Odor threshold

Not available.

pH

8.5

Melting point/freezing point

< 32 °F (< 0 °C)
Initial boiling point and boiling range  
> 212 °F (> 100 °C)

Flash point  
400 °F (204.4 °C) Pensky-Martens Closed Cup

Evaporation rate  
Not Determined

Flammability (solid, gas)  
Not applicable.

Upper/lower flammability or explosive limits

| Flammability limit - lower (%) | Not available. |
| Flammability limit - upper (%) | Not available. |
| Explosive limit - lower (%)   | Not available. |
| Explosive limit - upper (%)   | Not available. |

Vapor pressure  
Not available.

Vapor density  
Not available.

Relative density  
Not available.

Solubility(ies)  
Dispersible

Partition coefficient (n-octanol/water)  
Not available.

Auto-ignition temperature  
Not available.

Decomposition temperature  
Not available.

Viscosity  
Not available.

Other information

| Specific gravity | 1.07 |
| VOC ASTM D2369  | 32 % |

10. Stability and reactivity

Reactivity  
The product is stable and non-reactive under normal conditions of use, storage and transport.

Chemical stability  
Material is stable under normal conditions.

Possibility of hazardous reactions  
No dangerous reaction known under conditions of normal use. Hazardous polymerization does not occur.

Conditions to avoid  
Heat, flames and sparks. Contact with incompatible materials.

Incompatible materials  
Avoid contact with oxidizers or reducing agents.

Hazardous decomposition products  
Smoke, fumes, and oxides of carbon

11. Toxicological information

Information on likely routes of exposure

| Inhalation | Prolonged inhalation may be harmful. May cause damage to organs through prolonged or repeated exposure by inhalation. |
| Skin contact | Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis. |
| Eye contact | Causes serious eye irritation. |
| Ingestion | Expected to be a low ingestion hazard. |

Symptoms related to the physical, chemical and toxicological characteristics  
Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision.

Information on toxicological effects

Acute toxicity  
Expected to be a low hazard for usual industrial or commercial handling by trained personnel.

Components  
Species  
Test Results

<p>| 5-DECYNE-4,7-DIOL, 2,4,7,9-TETRAMETHYL- (CAS 126-86-3) |
| Acute  |
| Dermal  |
| LD50  | Rabbit  | &gt; 2000 mg/kg |</p>
<table>
<thead>
<tr>
<th>Components</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral LD50</td>
<td>Rat</td>
<td>4600 mg/kg</td>
</tr>
</tbody>
</table>

**ETHYLENE GLYCOL (CAS 107-21-1)**

**Acute**

| Dermal LD50 | Rabbit | 9530 µL/kg |
| Oral LD50   | Cat    | 1650 mg/kg |
|             | Dog    | 5500 mg/kg |
|             | Guinea pig | 8.2 g/kg  |
|             | Mouse  | 14.6 g/kg  |
|             | Rat    | 4000 mg/kg  |

* Estimates for product may be based on additional component data not shown.

**Skin corrosion/irritation**

Prolonged skin contact may cause temporary irritation. Defatting, drying and cracking of skin.

**Serious eye damage/eye irritation**

Causes serious eye irritation. Direct contact with eyes may cause temporary irritation.

**Respiratory or skin sensitization**

- **Respiratory sensitization**
  - Not a respiratory sensitizer.
- **Skin sensitization**
  - This product is not expected to cause skin sensitization.

**Germ cell mutagenicity**

No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

**Carcinogenicity**

This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.


- Not listed.

**Reproductive toxicity**

This product is not expected to cause reproductive or developmental effects.

**Specific target organ toxicity - single exposure**

- Not classified.

**Specific target organ toxicity - repeated exposure**

Causes damage to organs through prolonged or repeated exposure.

**Aspiration hazard**

Not an aspiration hazard.

**Chronic effects**

Causes damage to organs through prolonged or repeated exposure. Prolonged inhalation may be harmful.

**12. Ecological information**

**Ecotoxicity**

The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

<table>
<thead>
<tr>
<th>Components</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aquatic ETHYLENE GLYCOL (CAS 107-21-1)</td>
<td>Fathead minnow (Pimephales promelas)</td>
<td>8050 mg/l, 96 hours</td>
</tr>
</tbody>
</table>

* Estimates for product may be based on additional component data not shown.

**Persistence and degradability**

No data is available on the degradability of this product.

**Bioaccumulative potential**

| Partition coefficient n-octanol / water (log Kow) | ETHYLENE GLYCOL | -1.36 |

**Mobility in soil**

No data available.

**Other adverse effects**

No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.
13. Disposal considerations

Disposal instructions
Consult authorities before disposal. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.

Local disposal regulations
Dispose in accordance with all applicable regulations.

Hazardous waste code
The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Waste from residues / unused products
Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging
Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied. Do not re-use empty containers.

14. Transport information

DOT
Not regulated as dangerous goods.

IATA
Not regulated as dangerous goods.

IMDG
Not regulated as dangerous goods.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Not established.

15. Regulatory information

US federal regulations
This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200. It may be reportable under the provisions of SARA Sections 311 and 312 if specific threshold criteria are met or exceeded.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)
Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)
ETHYLENE GLYCOL (CAS 107-21-1) Listed.

SARA 304 Emergency release notification
Not regulated.

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories
Immediate Hazard - Yes
Delayed Hazard - Yes
Fire Hazard - No
Pressure Hazard - No
Reactivity Hazard - No

SARA 302 Extremely hazardous substance
Not listed.

SARA 311/312 Hazardous chemical
Yes

SARA 313 (TRI reporting)

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS number</th>
<th>% by wt.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETHYLENE GLYCOL</td>
<td>107-21-1</td>
<td>0.5 - 1.5</td>
</tr>
</tbody>
</table>

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List
ETHYLENE GLYCOL (CAS 107-21-1)

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)
Not regulated.

Safe Drinking Water Act (SDWA)
Not regulated.
US state regulations

US. California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100)
Not listed.

US. Massachusetts RTK - Substance List
ETHYLENE GLYCOL (CAS 107-21-1)

US. New Jersey Worker and Community Right-to-Know Act
ETHYLENE GLYCOL (CAS 107-21-1)

US. Pennsylvania Worker and Community Right-to-Know Law
ETHYLENE GLYCOL (CAS 107-21-1)

US. Rhode Island RTK
ETHYLENE GLYCOL (CAS 107-21-1)

California South Coast Air Quality Management District (SCAQMD) Rule 1144 (VOC Emissions)
This product is not subject to California's South Coast Air Quality Management District Rule 1144 (Rule only applicable to Metalworking Fluids, Vanishing Oils and Rust Inhibitors).

US. California Proposition 65
California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

International Inventories

<table>
<thead>
<tr>
<th>Country(s) or region</th>
<th>Inventory name</th>
<th>On inventory or exempt (yes/no)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>Australian Inventory of Chemical Substances (AICS)</td>
<td>Yes</td>
</tr>
<tr>
<td>Canada</td>
<td>Domestic Substances List (DSL)</td>
<td>Yes</td>
</tr>
<tr>
<td>Canada</td>
<td>Non-Domestic Substances List (NDSL)</td>
<td>No</td>
</tr>
<tr>
<td>China</td>
<td>Inventory of Existing Chemical Substances in China (IECSC)</td>
<td>Yes</td>
</tr>
<tr>
<td>Europe</td>
<td>European Inventory of Existing Commercial Chemical Substances (EINECS)</td>
<td>Yes</td>
</tr>
<tr>
<td>Europe</td>
<td>European List of Notified Chemical Substances (ELINCS)</td>
<td>No</td>
</tr>
<tr>
<td>Japan</td>
<td>Inventory of Existing and New Chemical Substances (ENCS)</td>
<td>Yes</td>
</tr>
<tr>
<td>Korea</td>
<td>Existing Chemicals List (ECL)</td>
<td>Yes</td>
</tr>
<tr>
<td>New Zealand</td>
<td>New Zealand Inventory</td>
<td>Yes</td>
</tr>
<tr>
<td>Philippines</td>
<td>Philippine Inventory of Chemicals and Chemical Substances (PICCS)</td>
<td>Yes</td>
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<tr>
<td>United States &amp; Puerto Rico</td>
<td>Toxic Substances Control Act (TSCA) Inventory</td>
<td>Yes</td>
</tr>
</tbody>
</table>

*"Yes" indicates this product complies with the inventory requirements administered by the governing country(s)

16. Other information, including date of preparation or last revision

Issue date 05-15-2015
Version # 01
Further information Not available.
Disclaimer The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

Revision Information

Product and Company Identification: Product Codes
Hazards Identification: US Hazard Categories
Composition / Information on Ingredients: Ingredients
Physical & Chemical Properties: Multiple Properties
Transport Information: Proper Shipping Name/Packing Group
Regulatory Information: United States
HazReg Data: Pacific Rim
GHS: Classification