SECTION 1: Identification of the substance/mixture and of the company/undertaking

Product identifier
Product form: Mixture
Product name: #S039 Mesh Lubricant
Product code: #S039
Product group: Commercial product

No additional information available

Details of the supplier of the safety data sheet
TW Graphics Group
3323 S. Malt Avenue
Commerce, CA 90040
T 323-721-1400
www.twgraphics.com

Emergency telephone number
Emergency number: 800-424-9300
For Chemical Emergency, Spill, Leak, Fire, Exposure, or Accident, call CHEMTREC – Day or Night

SECTION 2: Hazards identification

GHS Classification
Eye irritation: Category 2B
Specific target organ toxicity: Category 2 (Central nervous system, Kidney)
Repeated exposure:

GHS-Label element
Hazard pictograms:

Signal word: Warning

Hazard statements: H320 Cause eye irritation
H373 May cause damage to organs through prolonged or repeated exposure.

Precautionary statements: Prevention:
P260 Do not breathe dust/ fume/ gas/ mist/vapours/ spray.
P264 Wash skin thoroughly after handling.

Response:

10/21/2014 SDS REF: TWG S039
S039 Mesh Lubricant
Safety Data Sheet
According to Federal Register / Vol. 77, No.58 / Monday, March 26, 2012 / Rules and Registrations
Revision date: 10/21/2014

Potential Health Effects
Carcinogenicity:
IARC
No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH
No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

OSHA
No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

NTP
No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Emergency Overview

<table>
<thead>
<tr>
<th>CAUTION!</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
</tr>
<tr>
<td>Colour</td>
</tr>
<tr>
<td>Odour</td>
</tr>
</tbody>
</table>

SECTION 3: Composition/information on ingredients

<table>
<thead>
<tr>
<th>Substance / Mixture</th>
<th>:</th>
<th>Substance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hazardous components</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS-No.</td>
<td>Chemical Name</td>
<td>Concentration (%)</td>
</tr>
<tr>
<td>25265-71-8</td>
<td>Dipropylene glycol</td>
<td>50</td>
</tr>
<tr>
<td>7732-18-5</td>
<td>Water</td>
<td>50</td>
</tr>
</tbody>
</table>

P305 + P351 + P338 IF IN EYES: : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P314 Get medical advice/ attention if you feel unwell.
P337 + P313 If eye irritation persists: Get medical advice/ attention.

Disposal:
P501 Dispose of contents/ container to an approved waste disposal plant.

10/21/2014
SDS REF: TWG S039
Molecular formula : C6-H14-O3

SECTION 4: First aid measures

General advice : Move out of dangerous area. Show this safety data sheet to the doctor in attendance. Do not leave the victim unattended.

If inhaled : Consult a physician after significant exposure. If unconscious place in recovery position and seek medical advice.

In case of skin contact : If skin irritation persists, call a physician. If on skin, rinse well with water. If on clothes, remove clothes.

In case of eye contact : Immediately flush eye(s) with plenty of water. Remove contact lenses. Protect unharmed eye. Keep eye wide open while rinsing.

If swallowed : Clean mouth with water and drink afterwards plenty of water. Keep respiratory tract clear. Do not give milk or alcoholic beverages. Never give anything by mouth to an unconscious person. If symptoms persist, call a physician. Take victim immediately to hospital.

SECTION 5: Firefighting measures

Suitable extinguishing Media : Carbon dioxide (CO2) Dry chemical Water spray Foam

Unsuitable extinguishing Media : High volume water jet

Hazardous combustion Products : Carbon oxides

Specific extinguishing Methods : Use a water spray to cool fully closed containers.

Further information : Standard procedure for chemical fires. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
S039 Mesh Lubricant  
Safety Data Sheet  
According to Federal Register / Vol. 77, No.58 / Monday, March 26, 2012 / Rules and Registrations  
Revision date: 10/21/2014  

Special protective equipment for firefighters: Wear self-contained breathing apparatus for firefighting if necessary.

NFPA Flammable and Combustible Liquids Classification:  
Combustible Liquid Class IIIB

SECTION 6: Accidental release measures

- Personal precautions, protective equipment and emergency procedures: Use personal protective equipment. Ensure adequate ventilation.
- Environmental precautions: Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities.
- Methods and materials for containment and cleaning up: Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust) Keep in suitable, closed containers for disposal.

SECTION 7: Handling and storage

- Advice on safe handling: Avoid formation of aerosol. Do not breathe vapours/dust. Avoid contact with skin and eyes. For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. Provide sufficient air exchange and/or exhaust in work rooms. Dispose of rinse water in accordance with local and national regulations.
- Conditions for safe storage: Keep container tightly closed in a dry and well ventilated place. Electrical installations / working materials must comply with the technological safety standards.

SECTION 8: Exposure controls/personal protection

Components with workplace control parameters: Contains no substances with occupational exposure limit values.

Personal protective equipment:
- Respiratory protection: No personal respiratory protective equipment normally required. In the case of vapour formation use a respirator with an approved filter.
- Hand protection: The suitability for a specific workplace should be discussed

10/21/2014  
SDS REF: TWG S039
Remarks with the producers of the protective gloves.

Eye protection: Eye wash bottle with pure water
Tightly fitting safety goggles

Skin and body protection: impervious clothing
Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Hygiene measures: When using do not eat or drink.
When using do not smoke. Wash hands before breaks and at the end of workday.

SECTION 9: Physical and chemical properties

Appearance: Liquid
Colour: clear colourless
Odour: characteristic, slight
Odour threshold: No data available
pH: No data available
Freezing Point (Melting point/freezing point): -60 - -32 °C (-76 - -26 °F)
Boiling Point (Boiling point/boiling range): 222 - 236 °C (432 - 457 °F)
Flash point: 121 °C (250 °F)
Evaporation rate: 0.005
n-Butyl Acetate
Flammability (solid, gas): No data available
Burning rate: No data available
Upper explosion limit: 12.6 %(V)
Lower explosion limit: 2.2 %(V)
Vapour pressure: 0.0097 mmHg @ 25 °C (77 °F)
Relative vapour density: 4.6 @ 20 °C (68 °F)
(Air = 1.0)
Relative density: 1.02 - 1.03 @ 25 °C (77 °F)
Reference substance: (water = 1)
10/21/2014 SDS REF: TWG S039
Density: Approximate 1.03 g/cm³ @ 25 °C (77 °F)

Bulk density: No data available

Solubility(ies):
- Water solubility: Completely miscible
- Solubility in other solvents: No data available

Partition coefficient:
- Noctanol/water: log Pow: 0.67

Auto-ignition temperature: 310 – 337 °C (Auto-flammability)

Thermal decomposition: No data available

Viscosity:
- Viscosity, dynamic: 75 mPa.s @ 25 °C (77 °F)
- Viscosity, kinematic: 118 mm²/s @ 20 °C (68 °F)

**SECTION 10: Stability and reactivity**

Reactivity: No dangerous reaction known under conditions of normal use.

Chemical stability: Stable under normal conditions.

Possibility of hazardous reactions:
- Hazardous polymerisation does not occur.
- No hazards to be specially mentioned.

Conditions to avoid: Heat, flames and sparks.

Incompatible materials:
- Acids
- Bases
- Metals
- Oxidizing agents
- Reducing agents
- Metal salts

Hazardous decomposition products: Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke).

**SECTION 11: Toxicological information**

**Acute toxicity**

**Components:**
25265-71-8:

10/21/2014 SDS REF: TWG S039
Acute oral toxicity: LD50 (rat, male and female): > 5,000 mg/kg
Method: Standard Acute

Acute inhalation toxicity: LC50 (rat, male and female): > 2.34 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: Standard Acute
Assessment: The component/mixture is low toxic after short term inhalation.

Acute dermal toxicity: LD50 (rabbit, male and female): > 5,010 mg/kg
Method: Standard Acute

Skin corrosion/irritation

Product:
Remarks: May cause skin irritation and/or dermatitis.

Components:
25265-71-8:
Species: rabbit
Result: Mild skin irritation

Serious eye damage/eye irritation

Product:
Result: Mild eye irritation

Components:
25265-71-8:
Species: rabbit
Result: Mild eye irritation

Respiratory or skin sensitisation

Components:
25265-71-8:
Test Type: Buehler Test
Species: guinea pig
Result: Did not cause sensitisation on laboratory animals.

Germ cell mutagenicity

Components:
25265-71-8:

Genotoxicity in vitro: Test Type: Mammalian cell gene mutation assay
Test species: Mouse lymphoma cells
Metabolic activation: with and without metabolic activation

10/21/2014
SDS REF: TWG S039
Genotoxicity in vivo:
Test Type: In vivo micronucleus test
Test species: mouse (male)
Cell type: Bone marrow
Application Route: Oral
Exposure time: 2 d
Dose: 0, 500, 1000, 2000 mg/kg bw
Method: OECD Test Guideline 474
Result: negative
GLP: yes

Germ cell mutagenicity - Assessment: Did not show carcinogenic or mutagenic effects in animal experiments

Carcinogenicity

Components:
25265-71-8:
Species: mouse, (male and female)
Application Route: Oral
Exposure time: 105 wks
Dose: 0, 10000, 20000, 40000 ppm
NOAEL: 40,000 PPM
Result: did not display carcinogenic properties
GLP: yes
Carcinogenicity Assessment: Did not show carcinogenic effects in animal experiments.

Reproductive toxicity

Components:
25265-71-8:
Effects on fertility: Species: mouse, male and female
Application Route: Oral
Dose: 0, 1820, 4800, 10100 mg/kg bw
General Toxicity - Parent: NOAEL: 10,100 mg/kg body weight
General Toxicity F1: NOAEL: 10,100 mg/kg body weight
Fertility: NOAEL: 10,100 mg/kg body weight
Result: No reproductive effects.
Remarks: Information given is based on data obtained from similar substances.

Effects on foeta Development: Species: rat
Application Route: Oral
Dose: 0, 800, 2000, 5000 mg/kg bw
Duration of Single Treatment: 10 d
General Toxicity Maternal: NOAEL: 800 mg/kg body

10/21/2014
SDS REF: TWG S039
Reproductive toxicity - 
Assessment: No toxicity to reproduction 
Did not show teratogenic effects in animal experiments.

**STOT - single exposure**
**Product:** No data available

**Components:**
25265-71-8: No data available

**STOT - repeated exposure**
**Product:** No data available

**Components:**
25265-71-8:

<table>
<thead>
<tr>
<th>Exposure routes</th>
<th>Target Organs:</th>
<th>Assessment:</th>
<th>Remarks:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Central nervous system, Kidney</td>
<td>May cause damage to organs through prolonged or repeated exposure., The substance or mixture is classified as specific target organ toxicant, repeated exposure, category 2.</td>
<td></td>
</tr>
</tbody>
</table>

**Repeated dose toxicity**

**Components:**
25265-71-8:
Species: rat, male and female
NOAEL: 10000
Application Route: Oral
Exposure time: 105 wks
Number of exposures: Daily
Dose: 0, 2500, 10000, 40000 ppm
GLP: yes
Symptoms: Liver effects, nasal symptoms

**Aspiration toxicity**

**Product:**
May be harmful if swallowed and enters airways.

10/21/2014 
SDS REF: TWG S039
**Components:**

25265-71-8:

May be harmful if swallowed and enters airways

**Further information**

**Product:**

Remarks: No data available

---

**SECTION 12: Ecological information**

**Ecotoxicity**

**Components:**

25265-71-8:

Toxicity to fish:
- LC50 (Oryzias latipes (Japanese medaka)): > 100 mg/l
  - Exposure time: 96 h
  - Test Type: semi-static test
  - Method: OECD Test Guideline 203
  - Remarks: Information given is based on data obtained from similar substances.

Toxicity to daphnia and other aquatic invertebrates:
- EC50 (Daphnia magna (Water flea)): >100 mg/l
  - Exposure time: 48 h
  - Test Type: static test
  - Method: OECD Test Guideline 202
  - GLP: yes

Toxicity to algae:
- EC50 (Desmodesmus subspicatus): > 100 mg/l
  - End point: Biomass
  - Exposure time: 72 h
  - Method: OECD Test Guideline 201
  - GLP: yes

Toxicity to bacteria:
- EC 50 (Bacteria): > 5,000 mg/l
  - End point: Growth rate
  - Exposure time: 16 h
  - Test Type: Growth inhibition
  - GLP:

**Persistence and degradability**

**Components:**

25265-71-8:

Biodegradability:
- Result: Not readily biodegradable.
  - Biodegradation: < 60 %
Exposure time: 28 d

Bioaccumulative potential

Components:
25265-71-8:
Bioaccumulation: Remarks: Bioaccumulation is unlikely.
Partition coefficient: noctanol/water: log Pow: -1.07

Mobility in soil

Components:
25265-71-8:
Stability in soil: Remarks: Not expected to adsorb on soil.
Other adverse effects
No data available

Other adverse effects
No data available

Product:
Regulation 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances
Remarks This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

Additional ecological Information: No data available

SECTION 13: Disposal considerations

Disposal methods
Waste from residues: Dispose of in accordance with all applicable local, state and federal regulations.
For assistance with your waste management needs - Including disposal, recycling and waste stream reduction, contact TW Graphics, at 800-734-1704.
Contaminated packaging: Empty remaining contents.
Dispose of as unused product.
Do not re-use empty containers.

 SECTION 14: Transport information

10/21/2014 SDS REF: TWG S039
IATA (International Air Transport Association): Not regulated as a dangerous good

IMDG-Code: Not regulated as a dangerous good

DOT (Department of Transportation): Not regulated as a dangerous good

**SECTION 15: Regulatory information**

**OSHA Hazards**: Mild skin irritant, Mild eye irritant

**WHMIS Classification**: D1B: Toxic Material Causing Immediate and Serious Toxic Effects  
D2B: Toxic Material Causing Other Toxic Effects

**EPCRA - Emergency Planning and Community Right-to-Know Act**

**CERCLA Reportable Quantity**
This material does not contain any components with a CERCLA RQ.

**SARA 304 Extremely Hazardous Substances Reportable Quantity**
This material does not contain any components with a section 304 EHS RQ.

**SARA 311/312 Hazards**

**SARA 302**

: SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**SARA 313**

: SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

**Clean Air Act**
This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 12 (40 CFR 61).
This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).
The following chemical(s) are listed under the U.S. Clean Air Act Section 111 SOCMI Intermediate or Final VOC’s (40 CFR 60.489):

<table>
<thead>
<tr>
<th>Substance</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dipropylene glycol</td>
<td>50 %</td>
</tr>
</tbody>
</table>

**Clean Water Act**
This product does not contain any Hazardous Substances listed under the U.S. CleanWater Act, Section 311, Table 116.4A.
This product does not contain any Hazardous Chemicals listed under the U.S. Clean-Water Act, Section 311, Table 117.3.
This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

10/21/2014        SDS REF: TWG S039
US State Regulations

Massachusetts Right To Know
No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know
25265-71-8 Dipropylene glycol 50 %

New Jersey Right To Know
25265-71-8 Dipropylene glycol 50 %

California Prop 65
This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

The components of this product are reported in the following inventories:

<table>
<thead>
<tr>
<th>Country/Law</th>
<th>Reporting Status</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Switzerland. New notified substances and declared preparations</td>
<td>: y (positive listing)</td>
<td>(The formulation contains substances listed on the Swiss Inventory)</td>
</tr>
<tr>
<td>United States TSCA Inventory</td>
<td>: y (positive listing)</td>
<td>(On TSCA Inventory)</td>
</tr>
<tr>
<td>Canadian Domestic Substances List (DSL)</td>
<td>: y (positive listing)</td>
<td>(All components of this product are on the Canadian DSL.)</td>
</tr>
<tr>
<td>Australia Inventory of Chemical Substances (AICS)</td>
<td>: y (positive listing)</td>
<td>(On the inventory, or in compliance with the inventory)</td>
</tr>
<tr>
<td>New Zealand. Inventory of Chemical Substances</td>
<td>: y (positive listing)</td>
<td>(On the inventory, or in compliance with the inventory)</td>
</tr>
<tr>
<td>Japan. ENCS - Existing and New Chemical Substances Inventory</td>
<td>: y (positive listing)</td>
<td>(On the inventory, or in compliance with the inventory)</td>
</tr>
<tr>
<td>Japan. ISHL - Inventory of Chemical Substances (METI)</td>
<td>: y (positive listing)</td>
<td>(On the inventory, or in compliance with the inventory)</td>
</tr>
</tbody>
</table>
The information accumulated is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made become available subsequently to the date hereof, we do not assume any responsibility for the results of its use. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances. This SDS has been prepared by TW Graphics Group EHS Product Safety Department (1-800-424-9300).

**Key or legend to abbreviations and acronyms used in the safety data sheet**

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACGIH</td>
<td>American Conference of Government Industrial Hygienists</td>
</tr>
<tr>
<td>LD50</td>
<td>Lethal Dose 50%</td>
</tr>
<tr>
<td>AICS</td>
<td>Australia, Inventory of Chemical Substances</td>
</tr>
<tr>
<td>LOAEL</td>
<td>Lowest Observed Adverse Effect Level</td>
</tr>
<tr>
<td>DSL</td>
<td>Canada, Domestic Substances List</td>
</tr>
<tr>
<td>NFPA</td>
<td>National Fire Protection Agency</td>
</tr>
</tbody>
</table>

SDS REF: TWG S039
<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>NDSL</td>
<td>Canada, Non-Domestic Substances List</td>
</tr>
<tr>
<td>CNS</td>
<td>Central Nervous System</td>
</tr>
<tr>
<td>CAS</td>
<td>Chemical Abstract Service</td>
</tr>
<tr>
<td>EC50</td>
<td>Effective Concentration</td>
</tr>
<tr>
<td>EGEST</td>
<td>EOSCA Generic Exposure Scenario Tool</td>
</tr>
<tr>
<td>EOSCA</td>
<td>European Oilfield Specialty Chemicals Association</td>
</tr>
<tr>
<td>EINECS</td>
<td>European Inventory of Existing Chemical Substances</td>
</tr>
<tr>
<td>MAK</td>
<td>Germany Maximum Concentration Values</td>
</tr>
<tr>
<td>GHS</td>
<td>Globally Harmonized System</td>
</tr>
<tr>
<td>&gt;=</td>
<td>Greater Than or Equal To</td>
</tr>
<tr>
<td>IC50</td>
<td>Inhibition Concentration 50%</td>
</tr>
<tr>
<td>IARC</td>
<td>International Agency for Research on Cancer</td>
</tr>
<tr>
<td>IECSC</td>
<td>Inventory of Existing Chemical Substances in China</td>
</tr>
<tr>
<td>ENCS</td>
<td>Japan, Inventory of Existing and New Chemical Substances</td>
</tr>
<tr>
<td>KECI</td>
<td>Korea, Existing Chemical Inventory</td>
</tr>
<tr>
<td>&lt;=</td>
<td>Less Than or Equal To</td>
</tr>
<tr>
<td>LC50</td>
<td>Lethal Concentration 50%</td>
</tr>
<tr>
<td>NIOSH</td>
<td>National Institute for Occupational Safety &amp; Health</td>
</tr>
<tr>
<td>NTP</td>
<td>National Toxicology Program</td>
</tr>
<tr>
<td>NZIoC</td>
<td>New Zealand Inventory of Chemicals</td>
</tr>
<tr>
<td>NOAL</td>
<td>No Observable Adverse Effect Level</td>
</tr>
<tr>
<td>NOEC</td>
<td>No Observed Effect Concentration</td>
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<tr>
<td>OSHA</td>
<td>Occupational Safety &amp; Health Administration</td>
</tr>
<tr>
<td>PEL</td>
<td>Permissible Exposure Limit</td>
</tr>
<tr>
<td>PICCS</td>
<td>Philippines Inventory of Commercial Chemical Substances</td>
</tr>
<tr>
<td>PRINT</td>
<td>Presumed Not Toxic</td>
</tr>
<tr>
<td>RCRA</td>
<td>Resource Conservation Recovery Act</td>
</tr>
<tr>
<td>STEL</td>
<td>Short-term Exposure Limit</td>
</tr>
<tr>
<td>SARA</td>
<td>Superfund Amendments and Reauthorization Act.</td>
</tr>
<tr>
<td>TLV</td>
<td>Threshold Limit Value</td>
</tr>
<tr>
<td>TWA</td>
<td>Time Weighted Average</td>
</tr>
<tr>
<td>TSCA</td>
<td>Toxic Substance Control Act</td>
</tr>
<tr>
<td>UVCB</td>
<td>Unknown or Variable Compositon, Complex Reaction Products, and Biological Materials</td>
</tr>
<tr>
<td>WHMIS</td>
<td>Workplace Hazardous Materials Information System</td>
</tr>
</tbody>
</table>

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.