

MICRO • CHEM
SAFETY DATA SHEET

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Rev. Date: 06 November 2008

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION -----

PRODUCT USE: Organic Solvent Solution
TRADE NAME: SU-8 Developer
PRODUCT #: Y020100

SUPPLIER: MicroChem Corporation
 90 Oak Street, PO Box 426
 Newton, MA 02464-0002

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MSDS DATE: 06 November 2008

SECTION 2. HAZARDS IDENTIFICATION -----

Hazardous Classification

Flammable liquids - Category 3
Serious eye damage/eye irritation - Category 2A
Skin corrosion/irritation - Category 3
Target organ systemic toxicant single exp - Category 3
Target organ systemic toxicant repeat exp - Category 2



Signal Word: **WARNING!**

Hazards

Flammable liquid and vapour
Causes serious eye irritation.
Causes mild skin irritation.
May cause damage to organs through prolonged or repeated contact.
May cause drowsiness and dizziness.
May cause respiratory irritation.

Precautions

Do not breathe mist or vapors.
Use only in well-ventilated areas.
Keep away from heat, sparks and open flame. - No smoking.
Use explosion-proof equipment.
Wear protective gloves and eye/face protection.
Take precautionary measures against static discharge.
If skin irritation occurs, get medical advice/attention.
In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.

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IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
Call a POISON CENTRE or doctor/physician if you feel unwell.
Use extinguishing measures that are appropriate to local circumstances

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENTS: 1-Methoxy-2-propanol acetate (CAS: 108-65-6), >99.5%
Synonym: propylene glycol monomethyl ether acetate
2-Methoxy-1-propanol acetate (CAS: 70657-70-4), <0.5%

SECTION 4. FIRST AID MEASURES

INHALATION: If overcome by exposure, remove victim to fresh air immediately. Give oxygen or artificial respiration as needed. Obtain emergency medical attention.

INGESTION: Do not induce vomiting. Risk of damage to lungs exceeds poisoning risk. Obtain emergency medical attention.

SKIN CONTACT: Wash thoroughly with soap and water. Flush with lukewarm water for 15 minutes. If sticky, use waterless cleaner first. Seek medical attention if discomfort persists.

EYE CONTACT: Immediately flush the eyes with large amounts of clean low-pressure water for at least 15 minutes, occasionally lifting the upper and lower lids. If pain or irritation persists, promptly obtain medical attention.

SECTION 5. FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA: Water spray, dry chemical, carbon dioxide, or alcohol-resistant foam.

SPECIAL FIRE FIGHTING PRECAUTIONS: Do not enter fire area without proper protection. Wear positive pressure self-contained breathing apparatus (SCBA). Fight fire from a safe distance/protected location.

UNUSUAL FIRE OR EXPLOSION HAZARDS: Heat may build enough pressure to rupture closed containers. Use water spray/fog for cooling. Vapors may be heavier than air and may travel a long distance and accumulate in low lying areas. Ignition and/or flashback may occur.

SECTION 6. ACCIDENTAL RELEASE MEASURES

EVACUATION PROCEDURES & SAFETY: Wear appropriate protective gear for the situation. See Personal Protection information in Section 8.

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**CLEANUP & DISPOSAL
OF SPILL:**

Absorb with an inert absorbent. Sweep up and place in an appropriate closed container (see Section 7). Clean up residual material by washing area with water. Collect washings for disposal.

ENVIRONMENTAL &

REGULATORY REPORTING: Do not flush to drain. If required proper authorities should be notified.

SECTION 7. HANDLING AND STORAGE

PRECAUTIONS:

Store container tightly closed in well-ventilated place.

STORAGE:

Store away from direct sunlight. Minimize sources of ignition, such as static build-up, heat, sparks or flame.

HANDLING:

No smoking, open flames or sources of ignition in handling and storage area.

Electrically ground and bond all equipment.

Avoid breathing vapors.

Use with adequate ventilation.

Avoid contact with eyes.

Wear recommended personal protective equipment.

Wash with soap and water after handling.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**OCCUPATIONAL
EXPOSURE LIMITS:**

Propylene glycol monomethyl ether acetate: None established.
AIHA WEEL is 100 ppm TWA.

**RESPIRATORY
PROTECTION:**

Where exposure through inhalation may occur from use, approved respiratory protection equipment is recommended.

VENTILATION:

General mechanical ventilation or local exhaust is sufficient under normal conditions.

SKIN PROTECTION:

Chemical resistant gloves (Neoprene) are recommended.

EYE PROTECTION:

Chemical splash goggles and/or face shields are recommended.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:

Clear, colorless liquid

ODOR:

Aromatic, fruity

BOILING POINT:

146 °C (294 °F), @ 760mm Hg

SPECIFIC GRAVITY:

0.964 @ 25 °C (77 °F)

VAPOR PRESSURE:

3.7 mm Hg @ 20 °C (68 °F)

H₂O SOLUBILITY:

19% by weight

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% VOLATILES: 100% by wt
EVAPORATION RATE: 0.3 (BuAc = 1)
FLASH POINT: 47 °C (117 °F) TCC
AUTOIGNITION TEMP: 272 °C (522 °F)
EXPLOSION LIMITS: 1.5% lower (vol%)
10% upper (vol%)

SECTION 10. STABILITY AND REACTIVITY

STABILITY: Stable
INCOMPATIBILITY: Strong oxidizers.
HAZARDOUS POLYMERIZATION: Not expected to occur.
HAZARDOUS COMBUSTION OR
DECOMPOSITION PRODUCTS: Carbon Monoxide and other toxic vapors.

SECTION 11. TOXICOLOGICAL INFORMATION

Routes of Entry: Inhalation, ingestion, eye and skin contact

Symptoms of Exposure: Causes severe eye irritation. Causes mild skin irritation. May cause upper respiratory tract irritation, central nervous system depression, shortness of breath, drowsiness and confusion. Prolonged, repeated exposure to high concentrations can cause adverse effects to liver and kidney.

Acute Toxicity

Acute Oral Toxicity

Component: Propylene glycol monomethyl ether acetate
LD50 rat 8,532 mg/kg

Acute Dermal Toxicity

Component: Propylene glycol monomethyl ether acetate
LD50 rat > 5,000 mg/kg

Acute Inhalation Toxicity

Component: Propylene glycol monomethyl ether acetate
LC50 rat 23.49 mg/l, LC50 rat >4,345 ppm 6hr

Specific Concentration Limits

The values listed below represent the percentages of ingredients of unknown toxicity:

0.1% Acute oral toxicity

0.1% Acute dermal toxicity

0.1% Acute inhalation toxicity

Skin corrosion/irritation

Component: Propylene glycol monomethyl ether acetate

Acute Skin Irritation: this substance is a mild skin irritant

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Serious eye damage/eye irritation

Component: Propylene glycol monomethyl ether acetate
Acute Eye Irritation: Liquid is not irritating to eye. Mild eye irritation reported with vapor.

Respiratory or Skin Sensitisation

Component: Propylene glycol monomethyl ether acetate
Skin sensitization - Does not induce skin sensitization

Carcinogenicity

Component: Propylene glycol monomethyl ether acetate
Studies in laboratory animals indicate that this substance is not carcinogenic.

Germ Cell Mutagenicity

Component: Propylene glycol monomethyl ether acetate
No evidence of genotoxicity in standard bacterial and mammalian test systems in vitro.

Specific Target Organ Systemic Toxicity (single exposure)

Component: Propylene glycol monomethyl ether acetate
Central Nervous System

Specific Target Organ Systemic Toxicity (repeated exposure)

Component: Propylene glycol monomethyl ether acetate
Central Nervous System, Liver, Kidney

Toxicity to Reproduction

Component: Propylene glycol monomethyl ether acetate
This substance is not expected to cause adverse reproductive effects at dose levels that are not also toxic to the parent.
Component: 2-Methoxy-1-propanol acetate (CAS: 70657-70-4)
In laboratory animals, developmental effects were observed in the offspring.

Aspiration Hazards

No data found.

SECTION 12. ECOLOGICAL INFORMATION

Acute aquatic toxicity**Acute toxicity to fish**

Component: Propylene glycol monomethyl ether
96-h LC50 (Pimephales promelas): 161 mg/L

Acute toxicity to aquatic invertebrates

Component: Propylene glycol monomethyl ether
96-h EC50 Daphnia magna: >500 mg/L

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Acute toxicity to algae

Component: Propylene glycol monomethyl ether
No data found

Specific concentration limits

The values listed below represent the percentages of ingredients of unknown toxicity.

0.1% Acute aquatic toxicity – fish
0.1% Acute aquatic toxicity – aquatic invertebrates
100% Acute aquatic toxicity - algae

Chronic aquatic toxicity**Chronic toxicity to fish**

No data found

Chronic toxicity to aquatic invertebrates

No data found

Chronic toxicity to algae

No data found

Persistence/Degradability

Component: Propylene glycol monomethyl ether acetate
This material is readily biodegradable.

Bioaccumulation

Component: Propylene glycol monomethyl ether acetate
Not expected to bioaccumulate in aquatic organisms. Log Pow: <3

Mobility

Component: Propylene glycol monomethyl ether acetate
Rapid dissipation in soil expected. Koc value between 0 and 50 indicating very high soil mobility.

SECTION 13. DISPOSAL CONSIDERATIONS

Precautions

CONTAINERS MAY BE HAZARDOUS WHEN EMPTY. Since emptied containers retain product residue follow all MSDS and label warnings even after container is emptied. Dispose of contents/container in accordance with local regulation.

Disposal

Comply with applicable local, state or international regulations regarding the proper disposal of this material and/or containers.

SECTION 14. TRANSPORTATION INFORMATION

HAZARD CLASSIFICATION: Flammable Liquid
SHIPPING NAME: Esters NOS (1-Methoxy-2-propanol acetate)
UN NUMBER: UN 3272
PACKING GROUP: III

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SECTION 15. REGULATORY INFORMATION

US AND INTERNATIONAL INFORMATION

Chemical Inventories: TSCA (US) – Listed.
EINECS/ELINCS – Listed.
China – Listed.
Japan – Listed.
DSL/NDSL (Canada) – Listed.
AICS (Australia) – Listed.
Korea – Listed.
Philippines – Listed.

SARA Title III: This product IS NOT subject to SARA Title III,
Section 313 Reporting Requirements.

Calif. SCAQMD Rule 443.1 VOC's: 960 g/l; vapor pressure 3.8 mm Hg @ 25° C

SECTION 16. OTHER INFORMATION

National Fire Protection Association Hazard Ratings – NFPA:

- 1 Health Hazard Rating
- 2 Flammability Rating
- 0 Reactivity Rating

For additional information contact: productsafety@microchem.com

To the best of our knowledge, the above information is believed to be accurate but does not claim to be all-inclusive and is intended to be used only as a guide. The supplier makes no warranty of any kind, expressed or implied, concerning the use of this product and shall not be held liable for any damage resulting from handling or from contact with the above product. User assumes all risks incident to its use.

MSDS Revision Information: NEW