



Material Safety Data Sheet

1. CHEMICAL PRODUCT & COMPANY IDENTIFICATION

Trade Name **GLYSOL™ SA**
Manufacturer Workcell Systems, Inc.
P.O. Box 1645
Highland Park, IL 60035
Telephone Numbers 24-Hour emergency assistance 847-579-0595
General Assistance 847-579-0595
Product Class Emulsion – methyl ester soybean oil, glycol ether
Product Number
Effective Date May 18, 2004

2. COMPOSITION / INFORMATION ON INGREDIENTS

INGREDIENT NAME	CAS NUMBER	PERCENT
Methyl ester, soybean oil	67784-80-9	10 – 60%
Surfactant, modified ester	Proprietary	10 – 60%
Dipropylene glycol monomethyl ether	34590-94-8	5 – 30%
Methyl Siloxane	141-62-8	2 – 20%

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW Milky liquid, white translucent color, mild odor.
May cause irritation to the eyes, skin and respiratory system.

HEALTH EFFECTS: EYES May cause slight temporary eye irritation.
Corneal injury is unlikely.

HEALTH EFFECTS: SKIN Prolonged and/or repeated contact with skin may cause irritation and redness.

HEALTH EFFECTS: INHALATION High vapor or aerosol mist may be irritating to the nose, throat and upper respiratory tract. Signs and symptoms of Excessive or prolonged overexposure may be anesthetic or narcotic effects.

HEALTH EFFECTS: INGESTION Small amounts swallowed are not likely to cause injury.
Ingestion of large amounts may produce gastrointestinal disturbances including irritation, nausea and diarrhea.

**SYSTEMIC EFFECTS:
OTHER TARGET ORGANS** Observations in animals include minor liver or kidney effects.
Signs and systems of excessive exposure may be anesthetic or narcotic effects.

4. FIRST AID MEASURES

EYES	Immediately flush eyes with water for at least 15 minutes. If irritation persists get medical attention.
SKIN	Flush exposed skin area with large amounts of water. If irritation persists get medical attention.
INHALATION	If symptoms are noted, remove victim to fresh air. If not breathing, give artificial respiration. If breathing is difficult, administer oxygen by qualified personnel. Call a physician or transport to a medical facility.
INGESTION	Ingestion of small amounts is not likely to cause injury. If large amounts are ingested get medical attention. DO NOT INDUCE VOMITING unless directed to do so by medical personnel.
NOTE TO PHYSICIAN	No specific antidote. Supportive care. Treatment based on judgement of the physician in response to reactions of the patient.

5. FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES	Flash point N/A Autoignition temperature N/A
FLAMMABILITY LIMITS	LFL N/A UFL N/A
HAZARDOUS COMBUSTION PRODUCTS	During a fire, smoke may contain the original material in addition to unidentified toxic and/or irritating compounds. Hazardous combustion products may include and are not limited to: carbon monoxide, carbon dioxide.
EXTINGUISHING MEDIA	Dry chemical, foam, water fog, fine spray, carbon dioxide (CO ₂).
FIRE FIGHTING INSTRUCTIONS	Keep people away. Burning liquids may be extinguished by dilution with water. Do not use direct water stream, may spread fire. Burning liquids may be moved by flushing with water to protect personnel and minimize property damage.
FIRE FIGHTING EQUIPMENT	Fire fighters should wear full fire fighting turn-out gear (full Bunker gear) including NIOSH-approved self-contained breathing apparatus (SCBA) with full face-piece operated in the pressure demand or other positive pressure mode.

6. ACCIDENTAL RELEASE MEASURES

See section 15 for Regulatory Information

SPILL AND LEAK PROCEDURES

Protect people: Isolate spill or leak area immediately. Keep unauthorized personnel away. Stay upwind. Keep out of low areas. Ventilate closed spaces before entering. Eliminate all ignition sources (no smoking, flares, sparks or flames in the immediate area).

Protect the Environment: Contain liquid to prevent contamination of soil, surface water or ground water.

CLEANUP

Small Spills: Wear appropriate personal protective equipment. Absorb spilled liquid with sand, clay, or other non-combustible absorbent material and transfer to open containers for disposal.

Large Spills: Wear appropriate personal protective equipment. Dike ahead of liquid spill to prevent spread. Prevent entry into waterways, sewers, basements or confined areas. Pump liquid into tanks or containers for disposal. Absorb residual with sand, clay, or other non-combustible absorbent material and transfer to open containers for disposal.

CAUTION: SURFACES MAY BECOME SLIPPERY AFTER SPILLAGE

7. HANDLING & STORAGE

HANDLING

Wash thoroughly after handling. As with all industrial chemicals, good industrial hygiene practices should be followed when handling this material.

Empty containers, drums, cans, bottles, etc., carry the same precautions as the original chemical. Containers, even those that have been emptied, can contain vapors. Do not cut, drill, grind, weld, or perform similar operations near empty containers that previously contained this chemical.

STORAGE

Store in a cool, dry, well-ventilated area. Keep out of direct sunlight. Protect from freezing.

Recommended storage temperature range: 40° F - 90° F (4° C - 32° C)
Store away from strong oxidizers. Store in unlined carbon steel, stainless steel, high density polyethylene (HDPE), polypropylene (PP), Teflon®.

NOTE: Product may separate if allowed to freeze. If separation occurs, re-mix using propeller-type mixer. Blend until a uniform, milky emulsion is obtained.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS

Use general ventilation. Local exhaust may be required in enclosed or confined spaces.

PERSONAL PROTECTIVE EQUIPMENT

- Eyes / Face:** Use safety glasses. If splashing is likely, wear chemical goggles or face shield.
- Skin:** For brief contact, no precautions other than clean, dry body-covering clothing is needed. If repeated or prolonged contact is likely, wear protective clothing and impervious gloves.
- Respiratory:** When airborne exposure guidelines may be exceeded, NIOSH approved respiratory protection for organic vapors should be worn
- General:** Access to eye wash fountain and emergency showers is recommended.

EXPOSURE GUIDELINES

dipropylene glycol methyl ether component

ACGIH TLV and OSHA PEL are 100 ppm TWA. 150 ppm STEL. PELs are in accord with those recommended by OSHA, as in the 1989 revision of PELs.

9. PHYSICAL & CHEMICAL PROPERTIES

Appearance	Translucent, milky liquid
Odor	Slight ether
Flash Point	N/A
Boiling Point	~212°F (100° C)
Specific Gravity	0.98
Vapor pressure	N/A
Vapor Density	N/A
Volatile Organic Compounds (VOC) Content	N/A
Evaporation Rate	~ Water
Viscosity	4 cps @25° C
Solubility in Water	Disperses
Freezing Point	-5° C
pH (as supplied)	8.82

10. STABILITY & REACTIVITY

CHEMICAL STABILITY

Stable under recommended storage conditions. See STORAGE section.

CONDITIONS TO AVOID

Avoid strong oxidizing agents.

INCOMPATIBILITY

This product may react with strong oxidizing agents, alkalis.

HAZARDOUS DECOMPOSITION

Does not decompose under recommended storage conditions. Hazardous decomposition products depend upon temperature, air supply and the presence of other materials. Methanol may be evolved if hydrolyzed or saponified.

HAZARDOUS POLYMERIZATION

Will not occur

11. TOXICOLOGICAL INFORMATION

CARCINOGENICITY No data available
LD50 VALUE

Oral: No data available
Dermal: No data available

Mutagenicity None

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL FATE This product is readily and completely biodegradable
ECOTOXICITY No data available

13. DISPOSAL CONSIDERATIONS

See Section 15 for Regulatory Information

DISPOSAL INSTRUCTIONS DO NOT DUMP INTO ANY SEWERS, ON THE GROUND OR INTO ANY BODY OF WATER.
Treatment, storage, transportation and disposal must be in accordance with applicable Federal, State/Provincial, and Local regulations. Regulations may vary in different locations. Waste characterizations and compliance with applicable laws are the responsibility solely of the waste generator.
WORKCELL SYSTEMS, INC. HAS NO CONTROL OVER THE MANAGEMENT PRACTICES OR MANUFACTURING PROCESSES OF PARTIES HANDLING OR USING THIS MATERIAL. THE INFORMATION PRESENTED HERE PERTAINS ONLY TO THE PRODUCT AS SHIPPED IN IT'S INTENDED CONDITION AS DESCRIBED IN MSDS SECTION 2 (COMPOSITION / INFORMATION ON INGREDIENTS).

14. TRANSPORT INFORMATION

DEPARTMENT OF TRANSPORTATION (DOT): Refer to bill of lading or container label for DOT regulatory information if required.

CANADIAN TDG INFORMATION Refer to bill of lading or container label for TDG regulatory information if required.

15. REGULATORY INFORMATION

NOT MEANT TO BE ALL INCLUSIVE — SELECTED REGULATIONS REPRESENTED

NOTICE: The information herein is presented in good faith and is believed to be accurate as of the effective date shown above. However, no warranty, express or implied is given. Regulatory requirements are subject to change and may differ from one location to another; it is the buyer's responsibility to ensure that its activities comply with Federal, State or Provincial, and Local laws and regulations. See other sections for health, safety and disposal information.

US REGULATIONS

- SARA 313 Information:** To the best of our knowledge, this product contains no chemical subject to SARA Title III supplier notification requirements.
- Toxic Substances Control Act (TSCA):** All ingredients are listed on the TSCA inventory or not required to be listed on the TSCA inventory.
- State Right-To-Know:** This product is not known to contain any substances subject to the disclosure requirements of New Jersey, Pennsylvania.
- OSHA Hazard Communication Standard:** This product contains a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200 .
- National Fire Protection Association (NFPA) Ratings:**
- | | |
|---------------|---|
| Health: | 1 |
| Flammability: | 1 |
| Reactivity: | 0 |

16. OTHER INFORMATION

- National Fire Protection Association (NFPA) Ratings:**
- | | |
|---------------|---|
| Health: | 1 |
| Flammability: | 1 |
| Reactivity: | 0 |

DISCLAIMER

Nothing contained herein grants or extends a license, express or implied, in connection with patents, issued or pending, of the manufacturer or others. The information contained herein is based on the manufacturer's own study and the works of others. The manufacturer makes no warranties, expressed or implied, as to the accuracy, completeness, or adequacy of the information contained herein. The manufacturer shall not be held liable (regardless of fault) to the vendee's employees, or anyone for any direct, special or consequential damages arising out of or in connection with the accuracy, completeness, adequacy or furnishing of such information.