MATERIAL SAFETY DATA SHEET

FORMULA 1

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION UNITED SUPPLIERS, INC.

BOX 538

Eldora, IA 50627

PRODUCT NAME: FORMULA 1
CHEMICAL NAME: Mixture
CHEMICAL FAMILY: Surfactant

EMERGENCY CONTACT: In the event of chemical emergencies involving a spill, leak, fire exposure, or accident

involving chemicals -- call CHEMTREC (800) 424-9300.

2. HAZARDS IDENTIFICATION SUMMARY

KEEP OUT OF REACH OF CHILDREN - CAUTION:

EYE: May cause minimal eye irritation. SKIN: Contact may cause mild irritation.

INHALATION: Inhalation is not expected to be a route of entry that causes concern.

INGESTION: Ingestion may irritate the digestive tract.

OTHER INSTRUCTIONS: Read all precautions of products being handled and follow the most restrictive language for all products to provide the safest work environment.

3. COMPOSITION, INFORMATION ON INGREDIENTS

Chemical Ingredients: Percentage by Weight: CAS No. TLV (Units)

Ammonium sulfate, glycerol,

ammonium sodium phosphate,

ammonium sodium citrate,

polyacrylamide copolymer 35.00 Mixture Not listed

Constituents Ineffective

as Spray Adjuvants 65.00

4. FIRST AID MEASURES

If in Eyes: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes then continue rinsing eye. Call a poison control center or doctor for treatment advice.

If on Skin or Clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

If Swallowed: Immediately call a poison control center or doctor. Do not induce vomiting unless told to do so by the poison control center or doctor. Have person sip a glass of water if able to swallow. Do not give anything by mouth to an unconscious person.

If Inhaled: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for treatment advice. FOR A MEDICAL EMERGENCY INVOLVING THIS PRODUCT have the product container or label with you when calling a poison control center or doctor.

5. FIRE FIGHTING MEASURES

FLASH POINT (OF/Test Method): >200°F / Pensky-Martens Closed Cup

FLAMMABLE LIMITS (LFL & UFL): Not established

EXTINGUISHING MEDIA: Use foam, dry chemical, carbon dioxide, water spray or fog. HAZARDOUS COMBUSTION PRODUCTS: Toxic fumes may be emitted in a fire situation.

SPECIAL FIRE FIGHTING PROCEDURES: Evacuate area and fight fire upwind from a safe distance to avoid hazardous vapors and decomposition products. Fire exposed containers can build up pressure and should be kept cool with water spray if possible. Explosive vapor could form from ruptured containers. Dike and collect water used to fight fire to prevent environmental damage due to run off. Foam or dry chemical fire extinguishing systems are preferred to prevent environmental damage from excessive water runoff.

UNUSUAL FIRE AND EXPLOSION HAZARDS: No specific explosion hazards are identified or expected. FIRE FIGHTING EQUIPMENT: Wear fire fighting gear appropriate for surrounding fire. HAZARDOUS COMBUSTION PRODUCTS: Normal combustion forms carbon dioxide, water vapor and may produce oxides of carbon, nitrogen and phosphorous.

6. ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED: In case of leak or spill, contain material and dispose as waste. Do not contaminate any body of water. Pick up spilled liquid with absorbent material and sweep up for disposal. Place it and damaged unusable containers in a landfill appropriate for non hazardous chemical waste. Check local, state and federal regulations for proper disposal. NOTE: Prevent spilled material from flowing onto adjacent land, or into municipal sewers and open bodies of water. Always wear proper protective equipment when working with the product.

7. HANDLING AND STORAGE

HANDLING: Wash hands after handling, and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

STORAGE: If stored below freezing, shake well or recirculate before use. Keep containers tightly closed. Store in original container. Do not allow water or other chemicals to be introduced into contents of container. Do not contaminate water sources with equipment wash water, spray disposal wastes or by cleaning of equipment. Do not store near feed or food products. Do not use or store near open flame.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS: When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d) (4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS. RESPIRATORY PROTECTION: Work in a well ventilated area; exposure to airborne contaminants is not expected to cause concern.

EYE PROTECTION: Wear chemical goggles or shielded safety glasses when handling and mixing product. SKIN PROTECTION: Wear protective clothing: long-sleeved shirts and pants, shoes plus socks and chemical-resistant gloves. Always refer to the label of the pesticide(s) in the tank mix and follow the most restrictive requirements.

Personal Protective Equipment (PPE): Eye protection, long sleeved shirt and long pants, shoes plus socks and chemical resistant gloves. Follow manufacturer's instructions for cleaning/maintaining PPE. If not such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: Hazy light liquid, Sweet odor SOLUBILITY: Soluble pH: 4.5 - 5.5 (1% sol)

SPECIFIC GRAVITY (Water=1): 1.15 – 1.20 g/ml

VAPOR PRESSURE: Not established

PERCENT VOLATILE (by volume): 65%

BULK DENSITY: 9.59 – 10.00 lbs/gal.

BOILING POINT: Not established

EVAPORATION RATE: Not established

Note: These physical data are typical values based on material tested but may vary from sample to sample. Typical values should not be construed as a guaranteed analysis of any specific lot or as specification items.

10. STABILITY AND REACTIVITY

STABILITY: Stable

CONDITIONS TO AVOID: None Known IMCOMPATIBILITY: Strong oxidizing agents. HAZARDOUS POLYMERIZATION: Will not occur.

 ${\it HAZARDOUS\ DECOMPOSITION\ PRODUCTS:}\ \ Incomplete\ combustion\ may\ yield\ carbon\ monoxide,\ carbon\ dioxide$

and other hazardous gas.

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11. TOXICOLOGICAL INFORMATION

Acute Oral LD_{50} : >2,000 mg/kg (female) Acute Dermal LD_{50} : >2,000 mg/kg Eye Irritation: Causes mild irritation Skin Irritation: May causes mild irritation Inhalation LC_{50} : Not Established Skin sensitization: Not a contact sensitizer

Carcinogenic Potential: None listed in OSHA, NTP, IARC, or ACGIH

ECOLOGICAL INFORMATION

ENVIRONMENTAL SUMMARY: Ecotoxicity information is not available. This product is not for use in aquatic settings.

13. DISPOSAL CONSIDERATIONS

Do not reuse product containers. Triple rinse (or equivalent), then offer for recycling at an ACRC site (go to http://www.acrecycle.org/ for locations) or by reconditioning, or puncture and dispose of in a sanitary landfill or by other procedures approved by local, state and federal regulations.

14. TRANSPORT INFORMATION

DOT HAZARD CLASS: Not regulated by DOT

UN NUMBER: Not Applicable

DOT PACKING GROUP: Not Applicable DOT PRIMARY/SECONDARY LABEL: None DOT PRIMARY/SECONDARY PLACARD: None

15. REGULATORY INFORMATION

NFPA RATINGS: Least = 0 Slight = 1 Moderate = 2 High = 3 Severe = 4

Ratings for this product: Health – 1 Flammability – 0 Instability – 0

Special Hazards - None Specified

SARA Title III Hazard Category: Immediate __Y_ Fire __N_ Sudden Release of Pressure __N_ Delayed __N_ Reactive __N_

Reportable Quantity (RQ) under U.S. CERCLA: Not listed

SARA, Title III, Section 313: Not listed

CA Proposition 65: Not listed

16. OTHER

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