

TRICARD

TRIANGLE CHEMICAL COMPANY - P.O. BOX 4528, MACON, GEORGIA 31213
CARDINAL CHEMICALS, INC. - KINSTON, NC

MATERIAL SAFETY DATA

1. PRODUCT IDENTIFICATION

PRODUCT NAME: **DW SURFACTANT PLUS**
SYNONYMS: Spreader Activator Surfactant
CHEMICAL FAMILY: Proprietary Blend

2. HAZARDOUS INGREDIENTS

COMPONENT	CAS. NO.	%	TWA/CEILING	REFERENCE
Maximum of 1 ppm Ethylene Oxide (EO) (75-21-8) May be present in the product. The OSHA PEL and ACGIH TLV for EO is 1 ppm.				

3. EFFECTS OF OVEREXPOSURE:

EYE: May cause irritation.
SKIN: Prolonged skin contact may cause irritation.
INHALATION: May cause irritation to eyes, nose, throat and respiratory tract.
ORAL: May cause nausea, vomiting, diarrhea and abdominal discomfort.

The above listed potential effects of overexposure are based on actual data, results of studies performed upon similar compositions, component data and/or expert review of the product. Overexposure to any chemical may result in enhancement of pre-existing and adverse medical condition and allergic reactions.

4. EMERGENCY FIRST AID

INHALATION: Remove from exposure to fresh air. Give artificial respiration or cardiopulmonary resuscitation (CPR) if required. If breathing is difficult, give oxygen. Keep warm and quiet. Get medical attention.
SKIN CONTACT: Wash affected areas with soap and water. Do not use solvents. Remove contaminated clothing and wash before reuse. Get medical attention.
EYE CONTACT: Flush with water for 15 minutes. Get medical attention.
INGESTION: Get medical attention.

5. REACTIVITY DATA

STABILITY: () unstable (x) stable
INCOMPATIBILITY (MATERIALS TO AVOID): Strong oxidizing agents such as hydrogen peroxide, bromine, and chromic acid.
HAZARDOUS POLYMERIZATION: () may occur (x) will not occur
CONDITIONS TO AVOID: None

6. PHYSICAL PROPERTIES

APPEARANCE AND ODOR: Clear Amber Liquid
Mild
BOILING POINT: >200 F
SPECIFIC GRAVITY: 1.042(+/- .05)
VAPOR DENSITY: (X) heavier () lighter than air
% VOLATILE (BY VOL): < 1%
EVAPORATION RATE: () faster (X) slower than ether
SOLUBILITY IN WATER: Soluble

7. NFPA HAZARD RATING (National Fire Protection Association)

Health	1	Fire	2	Reactivity	0
				Special	

Fire: Materials that must be preheated before ignition can occur.
Health: Materials which on exposure should cause irritation but only minor residual injury even if no treatment is given.
Reactivity: Materials, which in themselves are normally stable, even under fire exposure conditions, and which are not reactive with water.

8. FIRE AND EXPLOSION HAZARD INFORMATION

DOT CATEGORY:	Not regulated
FLASH POINT:	111 °F
OSHA CATEGORY:	Combustible Liquid-Class III
EXTINGUISHING MEDIA:	Use National fire protection association Class B extinguishers (Carbon dioxide, water fog, dry chemical or foam). Water may also be used.
UNUSUAL FIRE AND EXPLOSION HAZARDS:	None Known
SPECIAL FIRE FIGHTING PROCEDURES:	Cool fire exposed containers with water. Wear NIOSH/MSHA approved self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

9. SPECIAL PRECAUTIONS

HANDLING AND STORAGE:	Keep container tightly closed. Keep away from heat, sparks and flame. Do not use with aluminum equipment at temperatures above 49 °C (120 °F).
OTHER PRECAUTIONS:	Do not take internally. Prevent contact with contaminated clothing. Wash contaminated clothing before reuse.

10. SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION:	Not required under normal operating conditions.
VENTILATION:	Where employees may be exposed, provide general dilution or local exhaust ventilation in volume and pattern to keep level of hazardous ingredient in Section 2 below recommended (ACGIH TLV) or regulate C (OSHA PEL) limit. Where employees will not be exposed, keep level below 25% of LEL in Sect.2.
PROTECTIVE GLOVES:	Wear chemically resistant gloves.
EYE PROTECTION:	Safety glasses with slide shields or goggles.
OTHER PROTECTIVE EQUIP.:	Avoid skin contact by use of other protective clothing. A safety shower, an eye bath and washing facilities should be available.

11. SPILL OR LEAK PROCEDURES

SPILLS OR RELEASES:	Certain releases of any substance to the environment are prohibited by law and may require reporting to an environmental agency Remove all sources of ignition. Wear personal protective equipment to avoid breathing vapors Use non-sparking tools. For small spills, dike and absorb with inert material. Use emergency response professionals if managing a release is beyond the capability of in-house personnel.
WASTE DISPOSAL:	This material is not classified as an ignitable hazardous waste according to federal regulations. However, It may be in your state. Check with your state environmental agency to Determine if this material is regulated in any way. No disposal method should be used which would pose an

environmental or human health threat including any which would contaminate ground or surface waters.

12. REGULATORY INFORMATION

COMPOUNDS WHICH REQUIRE REPORTING UNDER SARA TITLE III

<u>Sara regulated compounds</u>	<u>% Wt.</u>	<u>CAS NO.</u>
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No compounds present in quantities which are regulated.

13. OTHER INFORMATION

WARNING! This product contains a detectable amount of ethylene oxide, which is known to the State of California to cause cancer and/or reproductive toxicity.

Ethoxylated products may contain residual amounts of ethylene oxide (EO) which can accumulate in the container headspace and be released into the ambient environment. This process is enhanced when the product is agitated, as during tank car loading and unloading, and blending operations. Ethylene oxide causes tumors in laboratory animals. The Occupational Safety and Health Administration (OSHA) Permissible Exposure Level (PEL) for EO is 1 ppm for an eight-hour time weighted average exposure. The standard regulates occupational exposure to EO from all sources, including products containing residual EO. It is the responsibility of the employer to comply with OSHA ethylene oxide standard (29) CFR 1910.1047).

The recommendation for safe handling and protection procedures is believed to be generally suitable for the standard uses of this compound. However, each user should identify his intended uses of this material and determine whether they are appropriate. All data included in this document is released as typical values and should not be utilized to determine the suitability of this material for a particular use or purpose. No warranty, either expressed or implied, is hereby made, nor do we give permission, inducement, or recommendations to practice any patented invention without a license. All data is offered for consideration, investigation and verification purposes only.