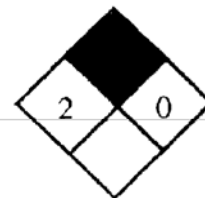


**MATERIAL SAFETY DATA SHEET****PRODUCT** "W" TEST SOLUTION**NFPA HAZARD RATINGS\***

|            |       |                            |
|------------|-------|----------------------------|
| Health     | [ 2 ] | [ Moderate Health Hazard ] |
| Fire       | [ 3 ] | [ Highly Combustible ]     |
| Reactivity | [ 0 ] | [ Non reactive ]           |

**SECTION 1. PRODUCT INFORMATION**

Manufacturer: ADCO Inc., 900 W. Main, Sedalia, MO 65301 (816) 826-3300

EMERGENCY TELEPHONE NUMBERS: CHEMTREC (800) 424-9300 24 HRS 7 DAYS A WEEK; ADCO (800) 821-7556 (8-5 M-F)

Intended Product Use: Testing for anionic detergent concentrationSynonyms: none**SECTION 2. HAZARDOUS INGREDIENTS**

| Chemical Name | %  | CAS #   | OSHA PEL | LD 50   |
|---------------|----|---------|----------|---|
| Chloroform    | 91 | 67-66-3 | 10 ppm   | Oral 1000-2000 mg/kg (rat)<br>Dermal 4000 mg/kg (rabbit)<br>Inhalation 8000 ppm/4 hr. (rat) |
| Isopropanol   | 8  | 67-63-0 | 400 ppm  | Oral 5840 mg/kg (rat)<br>Dermal 13,000 mg/kg (rabbit)<br>Inhalation 12,000 ppm (rat)        |

**SECTION 3. PHYSICAL DATA\***

|   |  |
|---|--|
| Appearance: <u>clear liquid</u>               | Boiling Point: <u>150° F</u>               |
| Odor: <u>slightly sweet - ether like</u>      | Solubility in Water: <u>slight</u>         |
| Specific Gravity (20° C): <u>1.38 @ 68° F</u> | Vapor Pressure (mm Hg): <u>190 @ 68° F</u> |
| pH (Water Solution): <u>Not applicable</u>    | Vapors are Heavier than Air: <u></u>       |

**SECTION 4. FIRE AND EXPLOSION HAZARD DATA\***

|   |                                       |
|---|---------------------------------------|
| Flash Point (Method Used): <u>77° F (TCC)</u>                               | Upper Flammable Limit: <u>No Data</u> |
| Extinguishing Media: <u>Water fog, foam, dry chemical or carbon dioxide</u> | Lower Flammable Limit: <u>No Data</u> |

Special Fire Fighting Procedures: Cool fire exposed containers with water spray. Wear self-contained breathing apparatus.Unusual Fire and Explosion Hazards: Vapors may form flammable or explosive mixture with air. Vapors are intoxicating and toxic.**SECTION 5. REACTIVITY DATA**

|   |   |
|---|---|
| Stability: <u>Stable</u>                      | Conditions to Avoid: <u>Use or storage at high temperatures</u>             |
| Incompatibility (materials to avoid): <u></u> | <u>Strong oxidizers, strong bases. Do not store in aluminum containers.</u> |
| Hazardous Decomposition Products: <u></u>     | <u>Burning produces toxic fumes.</u>  |
| Hazardous Polymerization: <u></u>             | <u>Will not occur</u>   |

**SECTION 6. HEALTH HAZARD DATA**

|   |             |
|---|-------------|
| Toxicity: <u>Low - LD50 less than 1500 mg/kg</u>  | (Estimated) |
| Effects of Acute: <u>Vapors may cause dizziness, nausea, headache and irritation to the eyes, nose and lungs. Contact with eyes or skin may cause drying and irritation. Exposure may cause central nervous system (CNS) depression and increase myocardial irritability.</u> |             |
| Overexposure: <u></u>   |             |
| Chronic: <u>Prolonged exposure may cause liver and kidney damage, CNS depression, low blood pressure and rapid heartbeat. Some animal studies at high dose have shown increased toxicity to pregnant rats and rabbits and decreased fetal weight.</u>                         |             |

\*Hazard ratings and other information are based on latest available information from tests on product or ingredients of mixtures. The data and evaluations are accurate to the best of ADCO's knowledge. No guarantee or liability is expressed or implied.

|  |  |                          |  |
|--|--|--------------------------|--|
| EXPOSURE LIMITS                              | IRRITANCY OF PRODUCT                                       | SENSITIZATION TO PRODUCT | CARCINOGENICITY                                    |
| Chloroform PEL 10 ppm<br>Isopropanol 400 ppm | No data  | None reported            | Contains chloroform<br>listed as an A-2 carcinogen |
| TERATOGENICITY                               | REPRODUCTIVE TOXICITY                                      | MUTAGENICITY             | SYNERGISTIC PRODUCTS                               |
| No effects reported                          | Decreased fetal weights<br>reported in some animal studies | No effects reported      | No data  |

\*Based on known toxicity of components. No test data available on mixture.

## SECTION 7. PREVENTIVE MEASURES

### SPECIAL PROTECTION INFORMATION

Respiratory Protection: None required when used as directed with adequate ventilation.  
When cleaning up large spills in confined area, self-contained breathing apparatus is recommended.

Ventilation: Normal industrial ventilation is adequate.  
Local exhaust at work station recommended.

Protective Gloves: Ordinarily not needed. Use chemically resistant gloves when contact is prolonged or frequent.

Eye Protection: Use goggles or face mask if splashing is likely.

Other protection equipment ordinarily not needed. Availability of eye washes and adequate ventilation in work areas recommended.

### STORAGE AND HANDLING:

Store in closed containers in cool (below 120° F) well ventilated location. Do NOT store in aluminum containers.  
Leave adequate headspace for thermal expansion (at least 10% of container volume).

### SPILL OR LEAK PROCEDURES:

Keep from sources of ignition. Small spills - allow to evaporate with adequate ventilation. Soak up the larger spills on absorbent material and transfer to resealable containers for disposal.

### WASTE DISPOSAL METHOD:

Dispose of product on absorbent material containing product, in manner complying with all local, state and federal regulations for combustibles or chlorinated hydrocarbons.

### RECOMMENDED PRECAUTIONARY LABELING:

#### CAUTION:

Flammable. Keep from heat and open flames.  
Use with adequate ventilation. Avoid prolonged breathing of vapors. May cause dizziness, nausea, headache and/or irritation to eyes, nose & lungs. Contact with eyes or skin may cause drying & irritation. Harmful if swallowed. Contains chloroform, an A-2 carcinogen.

#### FIRST AID:

Remove person overcome by vapors to fresh air. In case of contact, flush eyes for 15 minutes with water; wash off of skin. If swallowed, give large amounts of water. Do NOT induce vomiting. Call physician.

KEEP OUT OF REACH OF CHILDREN. DO NOT TAKE INTERNALLY.

This product is intended for professional use only by trained personnel.

## SECTION 8. FIRST AID

Inhalation: Remove person overcome by vapors to fresh air  
Eyes: Flush eyes for 15 minutes with water.  
Skin: Wash skin with water

Ingestion: If swallowed: give large amounts of water and do NOT induce vomiting. Call physician.

IF SYMPTOMS PERSIST SEEK MEDICAL ASSISTANCE

## SECTION 9. SARA TITLE III

NOTE: This product may contain some components which are under the reporting requirements of SARA Title III, Section 313. If you are required to report discharges using Form R, SARA Title III, Section 313, information is available on amounts of reportable components.

## SECTION 10 - PREPARATION DATE

This information is provided for guidance only based on information we have compiled. No guarantee of accuracy or completeness is expressed or implied.

ADCO RESEARCH DEPARTMENT

Date: March 26, 1998

Prepared by:

*Julie D Jones*

Replaces MSDS of: February 10, 1992

## MATERIAL SAFETY DATA SHEET

PRODUCT X SOLUTION For DYANITE 2000 & Triple Play

## NFPA - OSHA HAZARD RATINGS\*

|            |       |                          |
|------------|-------|--------------------------|
| Health     | [ 1 ] | [ Slight health hazard ] |
| Fire       | [ 0 ] | [ Non Combustible ]      |
| Reactivity | [ 0 ] | [ Non Reactive ]         |



## SECTION 1. PRODUCT INFORMATION

Manufacturer: ADCO Inc., 900 W. Main, Sedalia, MO 65301 (816) 826-3300  
EMERGENCY TELEPHONE NUMBERS: CHEMTREC (800) 424-9300; ADCO (800) 821-7556  
Intended Product Use: Indicator for testing anionic detergent concentration  
Synonyms: None State Registry# \_\_\_\_\_

## SECTION 2. HAZARDOUS INGREDIENTS

| Chemical Name | % | CAS # | OSHA PEL | LD50 |
|---------------|---|-------|----------|------|
| <u>none</u>   |   |       |          |      |

\*This ingredient is listed on Canadian WHMIS at 1% level.

## SECTION 3. PHYSICAL DATA\*

|  |   |
|--|---|
| Appearance: <u>Blue solution</u>       | Boiling Point: <u>Not applicable</u>          |
| Odor: <u>None</u>                      | Solubility in Water: <u>Soluble</u>           |
| Specific Gravity (20° C): <u>1.004</u> | Vapor Pressure (mm Hg): <u>Not applicable</u> |
| pH (Water Solution): <u>5.1 - 5.4</u>  |   |

## SECTION 4. FIRE AND EXPLOSION HAZARD DATA\*

|   |                                   |
|---|-----------------------------------|
| Flash Point: <u>None</u>                      | Upper Flammable Limit: <u>N/A</u> |
| Extinguishing Media: <u>Not combustible</u>   | Lower Flammable Limit: <u>N/A</u> |
| Special Fire Fighting Procedures: <u>None</u> |                                   |

Unusual Fire and Explosion Hazards: Contains a blue dye. If dissolved in water it may leave a blue stain.

## SECTION 5. REACTIVITY DATA

Stability: Stable Conditions to Avoid: No special conditions  
Incompatibility (materials to avoid): Alkaline materials - oxidizing agent  
Hazardous Decomposition Products: None  
Hazardous Polymerization: Will not occur.

## SECTION 6. HEALTH HAZARD DATA

Toxicity: Low Estimated.\*  
Effects of Acute: May cause very slight irritation to eyes and skin.  
Overexposure:  
Chronic: None known

\*Hazard ratings and other information are based on latest available information from test on product or ingredients of mixtures. The data and evaluations are accurate to the best of ADCO's knowledge. No guarantee or liability is expressed or implied.

|                                |                                     |   |                                  |
|--------------------------------|-------------------------------------|---|----------------------------------|
| EXPOSURE LIMITS<br>Not listed. | IRRITANCY OF PRODUCT<br>No reports. | SENSITIZATION TO PRODUCT<br>No reports. | CARCINOGENICITY<br>Not listed.   |
| TERATOGENICITY<br>No Data.     | REPRODUCTIVE TOXICITY<br>No Data.   | MUTAGENICITY<br>No Data.                | SYNERGISTIC PRODUCTS<br>No Data. |

\*Based on known toxicity of components. No test data available on mixture.

## SECTION 7. PREVENTIVE MEASURES

### SPECIAL PROTECTION INFORMATION

Respiratory Protection: None required when used as directed with adequate ventilation.  
 Ventilation: Normal industrial ventilation is adequate.  
 Protective Gloves: Ordinarily not needed. Use rubber gloves when contact is prolonged or frequent.  
 Eye Protection: Use goggles or face mask if splashing of solution made from powder is likely.  
 Other protection equipment ordinarily not needed. Availability of eye washes and adequate ventilation in work areas recommended.

### STORAGE AND HANDLING:

Do not expose to light (will fade dye). Avoid contact with clothing and skin, it will leave a blue stain difficult to remove.

### SPILL OR LEAK PROCEDURES:

Not a hazardous waste. If spilled sweep up, or wipe up. Flush to sewer with waste.

### WASTE DISPOSAL METHOD

Flush to sewer or dispose of in nonhazardous landfill. Empty container should be rinsed with water before disposal.

### RECOMMENDED PRECAUTIONARY LABELING:

#### CAUTION:

Contact with product may cause irritation to eyes or skin. Harmful if swallowed.

#### FIRST AID:

In case of contact: flush eyes 15 minutes with water; wash off of skin.  
 If swallowed: give 2 glasses of water and induce vomiting. Call physician

KEEP OUT OF REACH OF CHILDREN. DO NOT TAKE INTERNALLY.

This product is intended for professional use only by trained personnel.

## SECTION 8. FIRST AID

IF SYMPTOMS PERSIST SEEK MEDICAL ASSISTANCE

Eyes: Flush with water for 15 minutes.

Skin: Wash with soap and water.

Ingestion: Give milk of magnesia, or milk to soothe irritation. If large quantity ingested induce vomiting.

IF SYMPTOMS PERSIST SEEK MEDICAL ASSISTANCE

## SECTION 9. SARA TITLE III

NOTE: This product contains some components which are under the reporting requirements of SARA Title III, Section 313. If you are required to report discharges using Form R, SARA Title III, Section 313, information is available on amounts of reportable components.

## SECTION 10 - PREPARATION DATE

This information is provided for guidance only based on information we have compiled. No guarantee of accuracy or completeness is expressed or implied.

ADCO RESEARCH DEPARTMENT

Date: 5/16/95

Prepared by: S. Keith Ennis

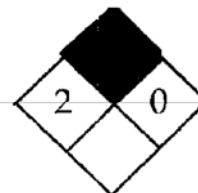
Replaces MSDS of:

## MATERIAL SAFETY DATA SHEET

PRODUCT Y SOLUTION

## OSHA HAZARD RATINGS\*

|            |       |                            |
|------------|-------|----------------------------|
| Health     | [ 2 ] | [ Moderate Health Hazard ] |
| Fire       | [ 2 ] | [ Moderately Combustible ] |
| Reactivity | [ 0 ] | [ Nonreactive ]            |



## SECTION 1. PRODUCT INFORMATION

Manufacturer: ADCO Inc., 900 W. Main, Sedalia, MO 65301 (816) 826-3300

EMERGENCY TELEPHONE NUMBERS: CHEMTREC (800) 424-9300 24 HRS 7 DAYS A WEEK; ADCO (800) 821-7556 (8-5 M-F)

Intended Product Use: Testing of anionic detergentsSynonyms: None State Registry# Pending

## SECTION 2. HAZARDOUS INGREDIENTS

| Chemical Name     | %       | CAS #    | OSHA PEL    | LD 50  |
|-------------------|---------|----------|-------------|--|
| Isopropyl alcohol | 10 - 30 | 67-63-0  | TWA=400 ppm | Orally: 5.8 g/kg (rats)                          |
| Ethylene glycol   | 15 - 40 | 107-21-1 | TWA=50 ppm  | Orally: 8540 mg/kg (rats)<br>1560 mg/kg (humans) |

## SECTION 3. PHYSICAL DATA

|  |  |
|--|--|
| Appearance: <u>Clear liquid</u>        | Boiling Point: <u>155°F</u>                        |
| Odor: <u>Like alcohol</u>              | Solubility in Water: <u>Miscible</u>               |
| Specific Gravity (20° C): <u>0.893</u> | Vapor Pressure (mm Hg): <u>32 mm Hg</u>            |
| pH (Water Solution): <u>8 - 8.5</u>    | Vapors are Heavier than Air: <u>Not applicable</u> |

## SECTION 4. FIRE AND EXPLOSION HAZARD DATA

|   |                                       |
|---|---------------------------------------|
| Flash Point (Method Used): <u>155°F (C.O.C.)</u>  | Upper Flammable Limit: <u>No Data</u> |
| Extinguishing Media: <u>Foam, carbon dioxide, dry chemical, water fog</u>                             | Lower Flammable Limit: <u>No Data</u> |
| Special Fire Fighting Procedures: <u>Cool fire exposed containers with water spray</u>                |                                       |
| Unusual Fire and Explosion Hazards: <u>Vapors may form combustible or explosive mixtures with air</u> |                                       |

## SECTION 5. REACTIVITY DATA

Stability: Stable Conditions to Avoid: Storage or use above 110° F

Incompatibility (materials to avoid): Strong oxidizers, strong acids  
Hazardous Decomposition Products: Carbon dioxide, carbon monoxide  
Hazardous Polymerization: Will not occur.

## SECTION 6. HEALTH HAZARD DATA

Toxicity: Slight (Estimated)  
Effects of Acute: Contact with eyes or skin may cause moderate irritation. Vapors may cause dizziness and irritation to eyes, nose and lungs.  
Overexposure:  
  
Chronic: None known.

\*Hazard ratings and other information are based on latest available information from tests on product or ingredients or mixtures. The data and evaluations are accurate to the best of ADCO's knowledge. No guarantee or liability is expressed or implied.

|   |   |   |                                       |
|---|---|---|---------------------------------------|
| EXPOSURE LIMITS<br>400 ppm TWA isopropyl alcohol<br>50 ppm TWA ethylene glycol                | IRRITANCY OF PRODUCT<br>moderately irritating to<br>eyes and skin | SENSITIZATION TO PRODUCT<br>None reported | CARCINOGENICITY<br>None reported      |
| TERATOGENICITY<br>Ingestion of ethylene glycol<br>has caused birth defects in<br>animal tests | REPRODUCTIVE TOXICITY<br>None reported                            | MUTAGENICITY<br>None reported             | SYNERGISTIC PRODUCTS<br>None reported |

Based on known toxicity of components. No test data available on mixture.

## SECTION 7. PREVENTIVE MEASURES

### SPECIAL PROTECTION INFORMATION

Respiratory Protection: None required when used as directed with adequate ventilation.  
When cleaning up large spills in confined area, self-contained breathing apparatus is recommended.

Ventilation: Normal industrial ventilation is adequate.  
Local exhaust at work station recommended.

Protective Gloves: Ordinarily not needed. Use chemically resistant gloves when contact is prolonged or frequent.

Eye Protection: Use goggles or face mask if splashing is likely.

Other protection equipment ordinarily not needed. Availability of eye washes and adequate ventilation in work areas recommended.

### STORAGE AND HANDLING:

Store in well ventilated area. Store in plastic or lined metal containers. Keep away from heat and open flames.

Store away from strong oxidizers. Protect from moisture.

### SPILL OR LEAK PROCEDURES:

Avoid breathing vapors. Keep open flames and ignition sources away.

Flush small amounts to drain with water.

### WASTE DISPOSAL METHOD

Liquid product is hazardous waste (combustible). When absorbed on solid material, it is not a hazardous material.

Flush small spills to sewer.

### RECOMMENDED PRECAUTIONARY LABELING:

#### CAUTION:

Splashing into eyes or prolonged or repeated contact with skin may cause irritation.

#### FIRST AID:

In case of contact, flush eyes 15 minutes with water. Wash off of skin. If swallowed, induce vomiting immediately by giving two glasses of water and pressing finger down throat. Do not give liquids to an unconscious person.

KEEP OUT OF REACH OF CHILDREN. DO NOT TAKE INTERNALLY.

This product is intended for professional use only by trained personnel.

## SECTION 8. FIRST AID

Inhalation: Remove person overcome by vapors to fresh air. Administer oxygen if needed.

Eyes: Flush eyes 15 minutes with water.

Skin: Wash off with soap and water.

Ingestion: Induce vomiting immediately as directed by medical personnel.

Do not give liquids to an unconscious person.

IF SYMPTOMS PERSIST SEEK MEDICAL ASSISTANCE

## SECTION 9. SARA TITLE III

NOTE: This product contains some components which are under the reporting requirements of SARA Title III, Section 313. If you are required to report discharges using Form R, SARA Title III, Section 313, information is available on amounts of reportable components.

## SECTION 10 - PREPARATION DATE

This information is provided for guidance only based on information we have compiled. No guarantee of accuracy or completeness is expressed or implied.

ADCO RESEARCH DEPARTMENT

Date: 8/16/94

Prepared by: S. Keith Emery

Replaces MSDS of: 12/10/91