

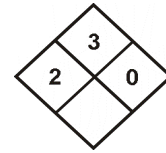
MATERIAL SAFETY DATA SHEET

PRODUCT "W" TEST SOLUTION



NFPA HAZARD RATINGS*

Table with 2 columns: Hazard Category and Rating. Rows: Health (2 Moderate health hazard), Fire (3 Highly flammable), Stability (0 Stable)



SECTION 1: PRODUCT INFORMATION

Manufacturer: ADCO Cleaning Products LLC, 900 W. Main, Sedalia, MO 65301 (660) 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 concentration
Synonyms: None

SECTION 2: HAZARDOUS INGREDIENTS

Table with 5 columns: Chemical Name, %, CAS #, OSHA PEL, LD 50. Rows: Chloroform (91%, 67-66-3, 50 ppm TWA, oral: 908 mg/kg (rat), dermal: > 20 g/kg (rabbit)), Isopropyl alcohol (8%, 67-63-0, 400 ppm TWA, oral: 5.8 g/kg (rat), dermal: 13 g/kg (rabbit))

SECTION 3: PHYSICAL DATA

Appearance: Clear liquid
Odor: Slightly sweet - ether like
Specific Gravity (20° C): 1.381
pH (Water Solution): No data
Boiling Point: 150°F
Solubility in Water: Slight
Vapor Pressure (mm Hg): 190 @ 68°F
Vapor Density: No data

SECTION 4: FIRE AND EXPLOSION HAZARD DATA

Flash Point (Method)(°F): 77° (TCC)
Upper Flammable Limit: No data
Lower Flammable Limit: No data
Extinguishing Media: Water fog, foam, dry chemical or carbon dioxide
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: Stable
Conditions to Avoid: Use or storage at high temperatures.
Incompatibility (materials to avoid): Strong oxidizers, strong bases. Do not store in aluminum containers.
Hazardous Decomposition Products: Burning produces toxic fumes.
Hazardous Polymerization: Will not occur

SECTION 6: HEALTH HAZARD DATA

Toxicity (Estimated): Low - LD50 less than 1500 mg/kg
Effects of Overexposure: Acute: 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 increased myocardial irritability. Chronic: 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.
Carcinogenicity: Chloroform is listed by NTP as a probable carcinogen, as an A-2 chemical by ACGIH, and is also listed by the state of California to cause cancer.

*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 50 ppm TWA (chloroform) : 400 ppm TWA (isopropyl alcohol)	IRRITANCY OF PRODUCT No effects reported	SENSITIZATION TO PRODUCT None reported	CARCINOGENICITY Chloroform listed as "R" by NTP, "A-2" by ACGIH and is listed by the state of California to cause cancer.
TERATOGENICITY No effects reported	REPRODUCTIVE TOXICITY No effects reported	MUTAGENICITY None reported	SYNERGISTIC PRODUCTS None reported

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

SECTION 7: PREVENTATIVE MEASURES

SPECIAL PROTECTION INFORMATION

Respiratory Protection: None required when used as directed with adequate ventilation. When cleaning up large spills in confined areas, 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 in manner complying with all local, state, and federal regulations for combustible 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, and lungs. Contact with eyes or skin may cause drying and 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 with soap and water. If swallowed, give large amount 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 off of skin with soap and 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 does 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

Prepared by:

Julie D. Hirner

Julie D. Hirner

Date: April 21, 2010

Replaces MSDS of: November 7, 2008

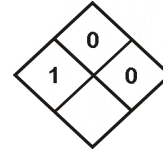
MATERIAL SAFETY DATA SHEET

PRODUCT "X" TEST SOLUTION



NFPA HAZARD RATINGS*

Table with 2 columns: Hazard Category, Rating, and Description. Rows: Health (1, Slight health hazard), Fire (0, Noncombustible), Stability (0, Stable)



SECTION 1: PRODUCT INFORMATION

Manufacturer: ADCO Cleaning Products LLC, 900 W. Main, Sedalia, MO 65301 (660) 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: Indicator for testing anionic detergent concentration
Synonyms: None

SECTION 2: HAZARDOUS INGREDIENTS

Table with 5 columns: Chemical Name, %, CAS #, OSHA PEL, LD 50. Row 1: None

SECTION 3: PHYSICAL DATA

Appearance: Blue solution
Odor: None
Specific Gravity (20° C): 1.004
pH (Straight): 5-5.5
Boiling Point: No data
Solubility in Water: Soluble
Vapor Pressure (mm Hg): No data
Vapor Density: No data

SECTION 4: FIRE AND EXPLOSION HAZARD DATA

Flash Point (Method)(°F): None (TCC)
Upper Flammable Limit: No data
Lower Flammable Limit: No data
Extinguishing Media: Not combustible
Special Fire Fighting Procedures: None
Unusual Fire and Explosion Hazards: Contains 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 (Estimated): Low
Effects of Overexposure: Acute: May cause very slight irritation to eyes and skin. Chronic: None
Carcinogenicity: None of the ingredients of this mixture have been identified as a carcinogen or probable carcinogen by ACGIH, IARC, or OSHA.

*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 Not listed by OSHA	IRRITANCY OF PRODUCT No effects reported	SENSITIZATION TO PRODUCT None reported	CARCINOGENICITY No components are listed by ACGIH, IARC, or OSHA
TERATOGENICITY No effects reported	REPRODUCTIVE TOXICITY No effects reported	MUTAGENICITY None reported	SYNERGISTIC PRODUCTS None reported

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

SECTION 7: PREVENTATIVE 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 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:

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 water.

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 for 15 minutes with water. Wash off of skin with soap and water. If swallowed, give two 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

Inhalation: No treatment necessary.

Eyes: Flush eyes for 15 minutes with water.

Skin: Wash off of skin with soap and water.

Ingestion: If swallowed, give Milk of Magnesia, or milk to soothe irritation. If large quantity is ingested, then induce vomiting.

IF SYMPTOMS PERSIST, SEEK MEDICAL ASSISTANCE

SECTION 9: SARA TITLE III

NOTE: This product does 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 reportabl

SECTION 10: PREPARATION DATE

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ADCO RESEARCH DEPARTMENT

Prepared by: Julie D. Hirner

Julie D. Hirner

Date: April 21, 2010

Replaces MSDS of: August 25, 2008

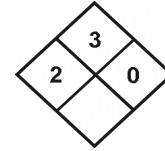
MATERIAL SAFETY DATA SHEET

PRODUCT "Y" TEST SOLUTION



NFPA HAZARD RATINGS*

Table with 2 columns: Hazard Category, Rating. Rows: Health (2 Moderate health hazard), Fire (3 Highly flammable), Stability (0 Stable)



SECTION 1: PRODUCT INFORMATION

Manufacturer: ADCO Cleaning Products LLC, 900 W. Main, Sedalia, MO 65301 (660) 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 detergents
Synonyms: None

SECTION 2: HAZARDOUS INGREDIENTS

Table with 5 columns: Chemical Name, %, CAS #, OSHA PEL, LD 50. Rows: Isopropyl alcohol, Ethylene glycol

SECTION 3: PHYSICAL DATA

Appearance: Clear liquid
Odor: Like alcohol
Specific Gravity (20° C): 0.893
pH: NA
Boiling Point: 155°F
Solubility in Water: Miscible
Vapor Pressure (mm Hg): 32
Vapor Density: No data

SECTION 4: FIRE AND EXPLOSION HAZARD DATA

Flash Point (Method)(°F): 85° (TCC)
Upper Flammable Limit: No data
Lower Flammable Limit: No data
Extinguishing Media: Foam, carbon dioxide, dry chemical, water fog
Special Fire Fighting Procedures: Cool fire exposed containers with water spray
Unusual Fire and Explosion Hazards: Vapors may form combustible or explosive mixtures with air

SECTION 5: REACTIVITY DATA

Stability: Stable
Conditions to Avoid: Storage or use above 110°F
Incompatibility (materials to avoid): Strong oxidizers, stron acids
Hazardous Decomposition Products: Carbon dioxide, carbon monoxide
Hazardous Polymerization: Will not occur

SECTION 6: HEALTH HAZARD DATA

Toxicity (Estimated): Slight
Effects of Overexposure: Acute: Contact with eyes or skin may cause moderate irritation. Vapors may cause dizziness and irritation to eyes, nose, and lungs.
Chronic: None
Carcinogenicity: None of the ingredients of this mixture have been identified as a carcinogen or probable carcinogen by ACGIH, IARC, or OSHA.

*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 50 ppm TWA (ethylene glycol) : 400 ppm TWA (isopropyl alcohol)	IRRITANCY OF PRODUCT Moderate eye and skin	SENSITIZATION TO PRODUCT None reported	CARCINOGENICITY No components are listed by ACGIH, IARC, or OSHA
TERATOGENICITY No effects reported	REPRODUCTIVE TOXICITY No effects reported	MUTAGENICITY None reported	SYNERGISTIC PRODUCTS None reported

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

SECTION 7: PREVENTATIVE 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 amount 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 with water.

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 for 15 minutes with water. Wash off of skin with soap and water. 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 for 15 minutes with water.

Skin: Wash off of skin 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 does 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

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ADCO RESEARCH DEPARTMENT

Prepared by:

Julie D. Hirner

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Date: April 21, 2010

Replaces MSDS of: November 7, 2008