

# MATERIAL SAFETY DATA SHEET

ARCOSOLV® DPM ACETATE

MSDS No P000365-001-OSHA-AE  
Ver. No 1  
Ver. Date NOV 3 93



ARCO Chemical Company  
3801 West Chester Pike  
Newtown Square, PA 19073-3287

**IMPORTANT:** Read this MSDS before handling and disposing of this product and pass this information on to the employees, customers, and users of this product. This product is covered by the OSHA Hazard Communication Rule and this document has been prepared in accord with the MSDS requirements of this rule.

## 1. General

<b>Trade Name</b>	ARCOSOLV® DPM ACETATE		<b>Telephone Numbers:</b>
<b>Other Company Names</b>	DPM Acetate	EMERGENCY (800) 424-9300 CHEMTREC (610) 353-8300 ARCO CHEM	
<b>Synonyms</b>	None	CUSTOMER SERVICE (800) 321-7000 INFO ONLY	
<b>Other Industry Names</b>	1-(2-Methoxy-Methyl-Ethoxy)-2-Propanol Acetate		
<b>Chemical Family</b>	Aliphatic Propylene Glycol Ether Esters		
<b>Generic Name</b>	Dipropylene Glycol Methyl Ether Acetate		
<b>DOT Hazardous Material Proper Shipping Name</b> Combustible liquid, n.o.s. (glycol ether acetate)			
<b>DOT Hazard Class</b> Combustible Liquid, n.o.s.	<b>DOT Packing Group</b> III	<b>DOT Reportable Quantity (Based on Material)</b> Not applicable	<b>UN/NA ID No.</b> NA 1993
<b>CAS No.</b> (See Section 9 - Components)	<b>Company Material ID</b> BE641	<b>MSDS Class</b> P	

## 2. Summary of Hazards

<b>Signal Word</b>	CAUTION
<b>Physical Hazards</b>	Moderately combustible liquid
<b>Acute Health Effects (Short-Term)</b>	No data found; no expected inhalation hazard No data found; suspect eye irritant No data found; no expected ingestion hazard No data found; suspect skin irritation hazard No data found; no expected skin absorption hazard
<b>Chronic Health Effects (Long-Term)</b>	No appropriate human or animal data are known to exist on adverse chronic health effects from repeated or prolonged exposure to this material

## 3. Fire and Explosion

<b>Flash Point</b> AP 186°F (SETA)	<b>Autoignition Temperature</b> No Data Available	<b>Flammable Limits</b> Lower: No Data Available Upper: No Data Available
<b>Fire and Explosion Hazards</b>	When heated above the flash point, releases flammable vapors. When mixed with air and exposed to ignition source, vapors can burn in open or explode if confined. Vapors may be heavier than air. May travel long distances along the ground before igniting and flashing back to vapor source. Fine sprays/mists may be combustible at temperatures below normal flash point.	
<b>Extinguishing Media</b>	CO <sub>2</sub> Dry chemical Foam	
<b>Extinguishing Media Use Comment</b>	Use waterspray/waterfog for cooling	
<b>Special Firefighting Procedures</b>	Do not enter fire area without proper protection. Fight fire from a safe distance/protected location. Heat may build enough pressure to rupture closed containers/spreading fire/increasing risk of burns/injuries. Use water spray/fog for cooling. Avoid frothing/steam explosion. Burning liquid may float on water. Although water soluble, may not be practical to extinguish fire by water dilution. Notify authorities immediately if liquid enters sewer/public waters.	



**4. Health Hazards**

<b>Summary of Acute Hazards</b>	Slight health hazard	
<b>ROUTE OF EXPOSURE</b>	<b>SIGNS AND SYMPTOMS</b>	<b>PRIMARY ROUTE(S)</b>
Inhalation	Although no appropriate human or animal health effects data are known to exist, this material is not expected to be an inhalation hazard.	No
Eye Contact	Although no appropriate human or animal health effects data are known to exist, this material is expected to cause eye irritation.	Yes
Skin Absorption	Although no appropriate human or animal health effects data are known to exist, this material is not expected to be a health hazard by skin absorption.	No
Skin Irritation	Although no appropriate human or animal health effects data are known to exist, this material is expected to be a skin irritant.	Yes
Ingestion	Although no appropriate human or animal health effects data are known to exist, this material is not expected to be an ingestion hazard.	No
<b>Summary of Chronic Hazards</b>	No appropriate human or animal data are available on the chronic health effects from prolonged or repeated exposure to this material.	
<b>Special Health Effects</b>	No additional information is available on whether overexposure to this material would aggravate other existing special medical conditions.	

**5. Protective Equipment and Other Control Measures**

<b>Respiratory</b>	No special respiratory protection is recommended under anticipated conditions of normal use with adequate ventilation.
<b>Eye</b>	Eye protection such as chemical splash goggles and/or face shield must be worn when possibility exists for eye contact due to splashing or spraying liquid, airborne particles, or vapor. Contact lenses must not be worn.
<b>Skin</b>	Depending on the conditions of use, protective gloves, apron, boots, head and face protection should be worn. The equipment must be cleaned thoroughly after each use.
<b>Engineering Controls</b>	No special ventilation is recommended under anticipated conditions of normal use beyond that needed for normal comfort control.
<b>Other Hygienic Practices</b>	Use good personal hygiene practices. Wash hands before eating, drinking, smoking, or using toilet facilities. Promptly remove soiled clothing/wash thoroughly before reuse. Shower after work using plenty of soap and water.
<b>Other Work Practices</b>	Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

**6. Occupational Exposure Limits**

<u>Substance</u>	<u>Source</u>	<u>Date</u>	<u>Type</u>	<u>Value/Units</u>	<u>Time</u>	<u>Skin</u>
No occupational exposure limit(s) have been established for this material or its components						
<b>Exposure Limit Comments</b>	No additional Occupational Exposure Limit information available					

**7. Emergency and First Aid**

<b>Inhalation</b>	If overcome by exposure, remove victim to fresh air immediately. Give oxygen or artificial respiration as needed. Obtain emergency medical attention. Prompt action is essential.
<b>Eye Contact</b>	In case of eye contact, immediately rinse with clean water for 20-30 minutes. Retract eyelids often. Obtain emergency medical attention.
<b>Skin Contact</b>	Remove contaminated clothing as needed. Wash skin thoroughly with mild soap and water. Flush with lukewarm water for 15 minutes. If sticky, use waterless cleaner first.
<b>Ingestion</b>	If large quantity swallowed, give lukewarm water (pint/ 1/2 litre) if victim completely conscious/alert. DO NOT INDUCE VOMITING. Risk of damage to lungs exceeds poisoning risk. Obtain emergency medical attention.
<b>Physician's Emergency Medical Treatment Procedures</b>	If pain, blinking, tears, or redness continue, patient should contact ophthalmologist.



7. Emergency and First Aid (Cont'd)

**Physician's Detoxification Procedures** Treat burns or allergic reactions conventionally after decontamination.

**8. Spill and Disposal**

**Precautions if Material is Spilled or Released**  
Release may ignite and may cause fire/explosion. May biodegrade/deplete oxygen. Liquids/vapors may ignite. Evacuate/limit access. Extinguish all ignition sources. Stop release. Prevent flow to sewer/public waters. Notify fire and environmental authorities. Blanket with firefighting foam. Slippery walking/spread granular cover or soak up. Impound/recover large land spill. Soak up small spills with inert solids. Use suitable disposal containers. On water, material partially soluble/floats. Contain/collect rapidly to minimize dispersion. Disperse residue to reduce aquatic harm. Report per regulatory requirements.

**Waste Disposal Methods**  
Contaminated product/soil/water may be U.S. Resource Conservation and Recovery Act (RCRA)/U.S. Occupational Safety and Health Administration (OSHA) hazardous waste due to potential combustibility. (See 40 U.S. Code of Federal Regulations (CFR) 261 and 29 CFR 1910). Landfill solids at permitted sites. Use registered transporters. Burn concentrated liquids. Avoid flame-outs. Assure emissions comply with applicable regulations. Dilute aqueous waste may biodegrade. Avoid overloading/poisoning plant biomass. Assure effluent complies with applicable regulations.

**9. Components**

(This may not be a complete list of components.) (Compositions given are typical values, not specifications.)

Component Name	CAS No.	Composition Amount (Wt.)	Carcinogen ###
Dipropylene Glycol Methyl Ether Acetate	88917-22-0	GT 99 %	N/P

###1=U.S. National Toxicological Program 2=International Agency for Research on Cancer 3=U.S. Occupational Health and Safety Administration  
4=American Conference of Governmental Industrial Hygienists 9=Other

**10. Component Health Hazards**

Component	Component Health Hazards
Dipropylene Glycol Methyl Ether Acetate	Slight health hazard

**11. Additional Toxicological Information**

**Component Name/Comments**  
No additional toxicology information is available for the components of this material.

**Material**  
No additional toxicology information is available for this material.

**12. Physical and Chemical Data**

<b>Boiling Point</b> AP 392°F	<b>Viscosity</b> AP 2 CS (at 77°F) (Brookfield)	<b>Dry Point</b> Not applicable
<b>Freezing Point</b> No Data Available	<b>Vapor Pressure</b> LT .1 psia (at 77°F)	<b>Volatile Characteristics</b> Negligible
<b>Specific Gravity</b> AP .97 (H <sub>2</sub> O = 1.0 at 39.2°F)	<b>Vapor Specific Gravity</b> GT 6 (Air = 1.0 at 60-90°F)	<b>Solubility in Water</b> Moderate (1 to less than 10 Percent)
<b>pH</b> Not applicable	<b>Hazardous Polymerization</b> Not expected to occur	<b>Stability</b> Stable
<b>Other Chemical Reactivity</b>	(See Handling and Storage data elsewhere on this document) May react with oxygen to form peroxides	
<b>Other Physical and Chemical Properties</b>	No additional information available	
<b>Appearance and Odor</b>	Ester-like odor; Liquid; Clear, colorless	
<b>Conditions to Avoid</b>	Extended contact with air or oxygen; Heat, sparks, open flame, other ignition sources, and oxidizing conditions	
<b>Materials to Avoid</b>	Strong acids, Strong bases, Strong oxidizing agents, Air or oxygen	



## 12. Physical and Chemical Data (Cont'd)

**Hazardous Decomposition Products** Incomplete combustion may produce carbon monoxide and other toxic gases

**13. Hazards Rating Information****National Fire Protection Association**

Health = 0 Flammability = 2 Reactivity = 0

**National Paint and Coatings Association****Hazardous Material Information System (HMIS)**

Health = 1 Flammability = 2 Reactivity = 0 Personal Protection = B

**14. Additional Precautions****Handling and Storage Procedures**

Store only in tightly closed, properly vented containers away from heat, sparks, open flame and strong oxidizing agents. Storage under nitrogen atmosphere is recommended to minimize possible formation of highly reactive peroxides. It is recommended that any liquid product exposed to air not be highly concentrated by evaporation without first assuring that no peroxide is present. Alternately, positive steps should be taken to reduce any accumulated peroxides to a safe level before concentrating the liquid. Use only non-sparking tools. Properly ground containers before beginning transfer. All equipment must conform to applicable electrical code. Handle empty containers with care. Flammable/combustible residue remains after emptying. Store in properly lined steel/stainless steel to avoid slight discoloration from mild steel/copper. Aluminum (5000 series alloys - U.S. Aluminum Association Standard) showed no corrosion after 30 days contact with Arcosolv PM Acetate, Arcosolv DPM, TPM, PTB, or PM at 160°F. Some plastics/rubbers are attacked by Glycol Ethers/Ether Esters. This product will absorb water if exposed to air.

**Decontamination Procedures**

Isolate, vent, drain, wash and purge systems or equipment before maintenance or repair. Remove all ignition sources. Check atmosphere for explosiveness and oxygen deficiencies. Wear recommended personal protective equipment. Observe precautions pertaining to confined space entry.

**15. Regulatory Information****Federal****Toxic Substance Control Act (TSCA)**

The following is the Toxic Substances Control Act (TSCA) Chemical Substance Inventory Status of the components of this material with CAS numbers listed in Section 9 - Components:

CHEMICAL	CAS NO.	STATUS
Dipropylene Glycol Methyl Ether Acetate	88917-22-0	Listed - See Notes

**Notes:**

Confidential Inventory - ACC Bona Fide Intent #52-8400478

**Superfund Amendments and Reauthorization of 1988 (SARA), Title III****-Section 302/304**

Requires emergency planning based on 'Threshold Planning Quantities' (TPQs), and release reporting based on Reportable Quantities (RQs) of 'Extremely Hazardous Substances' (EHS) listed in Appendix A of 40 CFR 355. There are no components of this material with known CAS numbers which are on the EHS list.

**-Section 311 & 312**

Based upon available information, this material and/or components are classified as the following health and/or physical hazards according to Section 311 & 312:

Fire Hazard

**-Section 313**

The material does not contain any chemical components with known CAS numbers that exceed the De Minimis reporting levels established by SARA Title III, Section 313 and 40 CFR 372.

**Comprehensive Environmental Response, Compensation and Liability Act (CERCLA)**

No chemicals in this material with known CAS numbers are subject to the reporting requirements of CERCLA.

**OSHA Regulations**

'Chemical-specific' U.S. Occupational Safety and Health Administration (OSHA) regulations (1910.1002 to 1910.1050) presented under 29 U.S. Code of Federal Regulations (CFR) 1910 do not apply to this material or its components.

**Other EPA Regulations**

No additional information available

**Department of Transportation (DOT)**

Other than the normal shipping instructions and information given in this MSDS, there are no other specific U.S. Department of Transportation (DOT) regulations governing the shipment of this material.

**State Regulations:****California Safe Drinking Water and Toxic Enforcement Act of 1988 - Proposition 65**

This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins under California Proposition 65 at levels which would be subject to the proposition.

**California South Coast Air Quality Management District (SCAQMD) Rule 443.1 (VOC's)**

A Volatile Organic Compound (VOC) is any volatile compound of carbon excluding methane, carbon monoxide, carbonic acid, metallic carbides or carbonates, ammonium carbonate, 1,1,1-trichloroethane, methylene chloride, (FC-23), (CFC-113), (CFC-12), (CFC-11), (CFC-22), (CFC-114), and (CFC-115). By this definition, this is a VOC material.

**Massachusetts Right to Know Substance List (MSL) [105 CMR 670.000]**

Extraordinarily Hazardous Substances (MSL-EHS) must be identified when present in materials at levels greater than state specified criterion. The criterion is  $\geq 0.0001\%$ . Hazardous Substances (MSL-HS) on the MSL must be identified when present in materials at greater than the state specified criterion. The criterion is  $\geq 1\%$ . Components with CAS numbers present in this material, at levels specified in Section 9 - Components, do not require reporting under the statute.

**New Jersey Registration**

The New Jersey, Registry 3, Registration law does not apply to this material, as none of its components are trade secrets.

**Pennsylvania Right to Know Hazardous Substance List**

Special Hazardous Substances (PA-SHS) must be identified when present in materials at levels greater than the state specified criterion. The criterion is  $\geq 0.01\%$ . Hazardous Substances (PA-HS) must be identified when present in materials at levels greater than the state specified criterion. The criterion is  $\geq 1\%$ . Environmental Hazards (PA-EH) must be identified when present in materials at levels greater than the state specified criterion. The criterion is  $\geq 0.01\%$ . Components with CAS numbers present in this material, at levels specified in Section 9 - Components, do not require reporting under the statute.



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**Regulatory Advisory**

**If you reformulate or further process this material, you should consider re-evaluation of the regulatory status of the components listed in this sheet.**



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16. Label Information

<b>Manufacturer</b> ARCO Chemical Company 3801 West Chester Pike Newtown Square, PA 19073-3287		<b>Telephone Numbers:</b> EMERGENCY (800) 424-9300      CHEMTREC (610) 353-8300      ARCO CHEM CUSTOMER SERVICE (800) 321-7000      INFO ONLY		
<b>Other Company Names</b>	DPM Acetate	<b>Signal Word</b> CAUTION		
<b>Use Statement</b>	For industrial use only Keep out of reach of children			
<b>Physical Hazards</b> Combustible	<b>Health Hazards</b> Suspect eye irritant Suspect skin irritant			
<b>Precautionary Measures</b> Do not handle near heat, sparks, or open flame Avoid contact with eyes, skin, and clothing Wash thoroughly with soap and water Before handling and use, read and understand the Material Safety Data Sheet for this material Obey all label warnings, especially during container cleaning Refer to all federal, state, and local regulations prior to disposition of container and unused contents by reuse, recycling, or disposal				
<b>DOT Information:</b>	<b>UN/NA ID No.</b> NA 1993	<b>DOT Hazard Class</b> Combustible Liquid, n.o.s.	<b>DOT Packing Group</b> III	<b>DOT RQ (Based on Material)</b> Not applicable
<b>DOT Hazardous Material Proper Shipping Name</b> Combustible liquid, n.o.s. (glycol ether acetate)				
<b>Component Name</b>	<b>CAS No.</b>	<b>Composition Amount (Wt.)</b>	<b>RQ</b>	
Dipropylene Glycol Methyl Ether Acetate	88917-22-0	GT 99                      %	Not applicable	
<b>Instructions:</b> In case of fire, use:    CO <sub>2</sub> ; Dry chemical; Foam;				
<b>First Aid:</b>	<b>Inhalation</b>	If overcome by exposure, remove victim to fresh air immediately. Give oxygen or artificial respiration as needed. Obtain emergency medical attention. Prompt action is essential.		
	<b>Eye Contact</b>	In case of eye contact, immediately rinse with clean water for 20-30 minutes. Retract eyelids often. Obtain emergency medical attention.		
	<b>Skin Contact</b>	Remove contaminated clothing as needed. Wash skin thoroughly with mild soap and water. Flush with lukewarm water for 15 minutes. If sticky, use waterless cleaner first.		
	<b>Ingestion</b>	If large quantity swallowed, give lukewarm water (pint/ 1/2 litre) if victim completely conscious/alert. DO NOT INDUCE VOMITING. Risk of damage to lungs exceeds poisoning risk. Obtain emergency medical attention.		
<b>In case of spill:</b>	Release may ignite and may cause fire/explosion. Extinguish all ignition sources. Blanket with firefighting foam. Slippery walking/spread granular cover or soak up. Impound/recover large land spill; soak up small spill with inert solids. On water, may biodegrade. Contain/collect rapidly to minimize dispersion. Report per regulatory requirements.			
<b>Protective Equipment</b>				
	<b>Respiratory</b>	No special respiratory protection is recommended under anticipated conditions of normal use with adequate ventilation.		
	<b>Eye</b>	Chemical splash goggles and/or face shield should be worn.		
	<b>Skin</b>	Clothing such as gloves, apron, sleeves, boots, and full head/face protection appropriate to conditions of use should be worn.		
<b>Label No.:</b>	LP000365	<b>Version No.:</b>	1	<b>Date:</b> 1 September 1993

**17. General Comments****General Comments**

This document is generated for the purpose of distributing health, safety, and environmental data. It is not a specification sheet nor should any displayed data be construed as a specification.

**Other Comments**

Some of the information presented and conclusions drawn herein are from sources other than direct test data on the material itself.

Note	EQ=Equal	AP=Approximately	N/P=No Applicable Information Found
Qualifications:	LT=Less Than	UK=Unknown	N/AP=Not Applicable
	GT=Greater Than	TR=Trace	N/DA=No Data Available

**DISCLAIMER OF LIABILITY:**

The information in this MSDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This MSDS was prepared and is to be used only for this product. If the product is used as a component in another product, this MSDS information may not be applicable.

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