

# MATERIAL SAFETY DATA SHEET (MSDS)

## Part One: Chemicals and Corporate Identity

Chinese Name of Chemical: 二丙二醇甲醚醋酸酯 (DPMA)  
English Name of Chemical: Dipropylene Glycol Methyl Ether Acetate  
CAS No: 88917-22-0  
Molecule formula:  $\text{CH}_3(\text{OCH}_2\text{CHCH}_3)_2\text{OOCCH}_3$   
Molecule weight: 190.2  
Manufacturer: Jiangsu Yida Chemical Co., Ltd  
Address: No. 1 Qiuzhuang Xishiqiao Jiangyin, Jiangsu P.R. China  
Zip Code: 214441  
Fax: 0510-86608528  
Emergency Phone Number in Company: 0510-6600660  
E-mail Address: info@yidachem.com  
State's Emergency Phone Numbers (Section Number): 120, 119

## Part Two: Composition Information

Main Component: Dipropylene Glycol Monomethyl Ether Acetate, GC Content >99%  
CAS No: 88917-22-0

## Part Three: Risk Summarize

Risk Category: Combustible liquid.  
Routes of Invasion: Inhalation, skin contact, ingestion.  
Health Hazard: Vapor and liquid of this product can irritate eyes and respiratory system. Cause kidney damage if breathed in regularly.  
Environment Hazard:  
Explosion Hazard: In case of high fever, fire, oxidizer fire hazard will be occurred.

## Part Four: First Aid Treatments

Skin Contact: Take off the contaminated clothes, and flush skin with clean water.  
Eyes Contact: Flush them with abundant water, and go to a doctor if necessary.  
Inhalation: patients who breathe in vapor will be taken away from contaminated areas, to fresh air. In severe cases, seek medical advice. If breathing is difficult, give oxygen. In case of respiratory arrest, give artificial respiration immediately and seek medical treatment.

Take in by Accident: Drink enough warm water and it will actually elicit vomiting ,then send for a doctor.

## Part five: Method for Fire Fighting

Hazardous Properties: In case of high fever, fire, oxidizer fire hazard will be occurred.

Hazardous combustion products: CO<sub>2</sub>

Measures for Fire Fighting: The fire fighters should wear gas masks and fire-defense clothes, put out the fire on the windward side. Move the container to spacious place from the fire ground as far as possible. Spray water to keep the container of fire ground cooling till the fire is put out. If the container of the fire ground has changed the color or made a sound from the safe relief device, people should evacuate immediately. Spraying the overflow liquid by water to dilute it into incombustible mixture, protect the firefighters with water mist. Using powder extinguishing agent, carbon dioxide, dry powder to put out fire, and using water to cool the container in fire.

## Part six: Measures to Deal with Leakage

Emergency Treatment: Evacuate the personnel of leakage pollution area to safety immediately, quarantine the area and restrict the walking strictly. Cut off all sources of ignition, Propose that operators wear self contained breathing apparatus and general work overalls. Do not contact the leakage directly. Cut off the source of leakage as far as possible. Prevent the liquid flow into the restrictive space such as sewer and flood discharge trench. Small leakage: use water to rinse the contaminated ground, diluted sewage into the wastewater system,. a large amount of leak: build the causeway or dig a hole to collect. Transfer to tank car or dedicated container with pump and recover or send to waste disposal sites.

## Part seven: Operation, Disposition and Storage

Precautions in operation: Closed operation, fully ventilated. Operators must be specialized trained, and abide by the rules strictly. Propose that operators wear filter respirators (half-mask), wearing chemical protective gloves. Be far away from fire, heat, no smoking in workplace. Use explosion-proof ventilation systems and equipment to prevent vapor leakage into the air. Avoid contacting with oxidizer and acids. Handling should be careful to prevent damage. Provide the relevant fire-fighting equipments and emergency equipments. Empty containers may contain harmful residues.

Precautions in storage: Stored in a cool and ventilated warehouse. Be far away from fire and heat. Be separated with oxidants, acids when stored. Provide some kinds and quantities of fire-fighting equipments. Storage areas should be equipped with spill response equipments and suitable host materials.

## Part eight: Contact and Unit Protective

OEL: None

Test Means: Atmosphere sampling; chromatogram test.

Project Control: Sealed to operate and pay attention to ventilation

Respiratory Protection: Do not need special protection Generally. When the concentration in very high, people must wear non-powered air-purifying respirators (half-mask).

Eyes Protection: Chemical defense glasses.

Body Protection: Normal gas defense clothes.

Hands Protection: Wearing chemical protective gloves.

Other Protection: Smoking is not allowed in the workplace. Avoiding long-term repeated contact and doing regular health checks. To maintain good hygiene practices.

## Part nine: Physical and Chemical Characters

Appearance and Characters: The combustible liquid which is colorless, transparent, and low toxicity and a slightly ethers smell.

Purity:  $\geq 99.0$  wt %.

Specific weight (25/25 $\square$ ): 0.970-0.980

Boiling range (760mmHg): 205-217 $\square$

Acidity (Calculated as HAC) : 0.035% (wt)

Water content:  $\leq 0.05$  wt.%

Color (APHA)  $\leq 15$

Boiling point (760mmHg) :205 $\square$ C

Evaporation rate (BuAc=100) :<1

Flash point: 186 $\square$  (85.5 $\square$ )

Refractive index (25 $\square$ ) : 1.414

Dissolubility: (20 $\square$  in the water) 12 wt % (20 $\square$  in solvent) 3.5 wt %

Surface tension (25 $\square$ ) : 28.3 Dynes/cm

Viscosity (25 $\square$ C) :2.2 cSt

Vapor pressure (20 $\square$ ) :0.05 mmHg

Heat of vaporization :59.1 cal/g

Main Purpose: Used as solvent-based coatings and screen printing ink.

Other physical and chemical properties: low viscosity, strong solubility , moderate evaporation rate, and good coupling. It has good solubility for the majority of resins, such as: acrylic resin, epoxy resin, alkyd and polyester resins.

## Part ten: Stability and Reaction Conditions

Stability: Stable at normal temperature and on normal pressure.  
Forbidden Materials to Mix with: No relative data.  
Avoid contacting with heat, light, open flame, oxidizers and moisture.  
Dangers in Polymerization: Can not polymerize suddenly at normal temperature.  
Decomposition reaction: carbon dioxide will be volatilized when burned.

### Part eleven: Toxicological Data

Acute Toxicity: No relative data.  
Acrimony: Vapor and liquid can irritate eyes and respiratory system, with mild stimulus intensity.

### Part twelve: Ecology Data

Ecology Toxicity: No relative data..  
Biological Decompose Capability: Degradable..

### Part thirteen: Waste Disposal

Waste Character: Waste does not fall into danger category.  
Abandon Disposition Treatment: Burn it up or bury it.  
Precautions: In the process of disposition, please make sure not to pollute the environment.

### Part fourteen: Transport Information

UN No: No data  
UN proper shipping name: No data  
Transport hazard Class: No data  
Packing Mark: No data  
Packing Group: No data  
Packing methods: No data  
Environmental hazards(Yes/No): No

### Part fifteen: Legislation Information

*Ordinances on Chem. Safety Supervision*

### Part sixteen: Other Information

Time of Filling the Blank: 2015.6.11 (Period of validity: 10 year)  
Part of Filling: Standards Implementation Office.  
Data Audit Department: JiangSu Polytechnic University  
If there are any new standards or information, we will make timely changes.