



M400-000 Amalgamator

MATERIAL SAFETY DATA SHEET

RPM Wood Finishes Group
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EMERGENCY PHONE (CHEM TREC): 1-800-424-9300
FOR ALL INTERNATIONAL TRANSPORTATION ACCIDENTS. 1-703-527-3887 (collect)

Health: 2 Flammability: 3 Reactivity 0

PRODUCT NAME: M400-000 Amalgamator

I. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

REVISION DATE: 07/01/02
SUPERCEDES: None
MSDS NO. M400-000
OSHA HAZ. CLASS: Eye irritant. Neurotoxin - may cause nervous system damage.
Mucous membrane (respiratory tract) irritant.

II. COMPOSITION/INFORMATION ON INGREDIENTS

CHEMICAL NAME	%	CAS #	PEL
Ethanol	41-50	64-17-5	1000 ppm TWA; 1900 mg/m3 TWA
1-Methoxy-2-hydroxypropane	21-30	107-98-2	No PEL established
Toluene	1-10	108-88-3	200 ppm TWA; C 300 ppm
2-Methylpropyl isobutyrate	1-10	97-85-8	No PEL established
n-Propyl Acetate, Propyl Ester, Propyl Acetate	1-10	109-60-4	200 ppm TWA; 840 mg/m3 TWA
isopropanol	1-10	67-63-0	400 ppm TWA; 980 mg/m3 TWA
Hydrotreated distilate, light	1-10	68410-97-9	No PEL established
Methanol	1-10	67-56-1	200 ppm TWA; 260 mg/m3 TWA

III. HAZARDS IDENTIFICATION

Routes of Entry: Inhalation., Ingestion., Skin contact., Eye contact., Absorption.
Medical Conditions Aggravated: Eye disease. Liver disease. Skin disease including eczema and sensitization.
Respiratory disease including asthma and bronchitis. Kidney disease. Digestive tract disease.

Immediate (Acute) Health Effects

Inhalation: Irritation may be delayed for several hours. Can cause severe respiratory irritation, dizziness, weakness, fatigue, nausea, headache and possible unconsciousness.

Skin Contact: May cause skin irritation. Contact with the eyes may cause moderate to severe eye injury. Eye contact may result in tearing and reddening, but not likely to permanently injure eye tissue. Temporary vision impairment (cloudy or blurred vision) is possible.

Eye Contact: Can cause irritation. Contact with the eyes may cause moderate to severe eye injury. Eye contact may result in tearing and reddening, but not likely to permanently injure eye tissue. Temporary vision impairment (cloudy or blurred vision) is possible.

Skin Absorption: Can be absorbed through the skin but exposure must be extensive before adverse health effects occur. { Contains methanol. Upon prolonged or repeated exposure, may cause deterioration of the optic nerve if large quantities are absorbed through the skin. Repeated absorption of large quantities may lead to blindness. Harmful if absorbed through the skin. May cause severe irritation and systemic damage.

Ingestion: Aspiration of material into the lungs can cause chemical pneumonitis which can be fatal. Irritating to mouth, throat, and stomach. Can cause abdominal discomfort, nausea, vomiting and diarrhea.

Target Organ Acute Toxicity:

Ethyl alcohol	respiratory system, skin, eyes, CNS, liver, blood, reproductive system
Propylene glycol monomethyl ether	eyes, skin, respiratory system, CNS
Toluene	CNS, liver, kidneys, skin, eyes, respiratory system
n-Propyl acetate	skin, eyes, CNS, respiratory system
Isopropyl alcohol	eyes, skin, respiratory system
Methyl alcohol	skin, eyes, CNS, GI tract, respiratory system

Long-Term (Chronic) Health Effects:

Carcinogenicity: Contains a substance that is a probable cancer hazard based on human studies.

Reproductive and Developmental Toxicity: Possible reproductive hazard.

Mutagenicity: No data available to indicate product or any components present at greater than 0.1% is mutagenic or genotoxic.

Skin Contact: Prolonged or repeated contact may cause irritation.

Target Organ Chronic Toxicity: Eyes. Blood. Liver. Skin. Nervous System. Respiratory Tract. Eyes. Skin. Nervous System. Respiratory Tract. Kidneys. Digestive Tract.

Supplemental Health Hazard Information: No additional health information available.

IV. FIRST AID

Inhalation: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get immediate medical attention.

Eyes: Immediately flush eyes with plenty of water. Get medical attention, if irritation persists. Seek medical advice if symptoms persist.

Skin Contact:	Wash with soap and water. Get medical attention if irritation develops or persists.
Ingestion:	Induce vomiting as a last measure. Induced vomiting may lead to aspiration of the material into the lungs potentially causing chemical pneumonitis that may be fatal. Never give anything by mouth to an unconscious person.
Notes to MD:	No additional first aid information available.

V. FIRE FIGHTING MEASURES

Flammability Summary:

Flash Point:	-22C; -8F
Autoignition Temperature:	286 deg. C
Upper Flammable/Explosive Limit, % in air:	13.8 @ 77° F
Lower Flammable/Explosive Limit, % in air:	1.4 @ 77° F

Fire Hazards: Empty containers that retain product residue (liquid, solid/sludge, or vapor) can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose container to heat, flame, sparks, static electricity, or other sources of ignition. Any of these actions can potentially cause an explosion that may lead to injury or death. Container may explode in heat of fire. Vapors may be ignited by heat, sparks, flames or other sources of ignition at or above the low flash point giving rise to a fire (Class B). Vapors are heavier than air and may travel to a source of ignition and flash back.

Extinguishing Media: Water may be ineffective in fire fighting due the material (or component(s)) low flash point, low solvent density, and limited miscibility with water. Alcohol foam Dry chemical Use alcohol resistant foam, carbon dioxide, or dry chemical extinguishing agents. Water may be ineffective but water spray can be used to extinguish a fire if swept across the base of the flames. Water can absorb heat and keep exposed material from being damaged by fire.

Fire Fighting Instructions: Empty containers that retain product residue (liquid, solid/sludge, or vapor) can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose container to heat, flame, sparks, static electricity, or other sources of ignition. Any of these actions can potentially cause an explosion that may lead to injury or death. Container may explode in heat of fire. Vapors may be ignited by heat, sparks, flames or other sources of ignition at or above the low flash point giving rise to a fire (Class B). Vapors are heavier than air and may travel to a source of ignition and flash back.

Hazardous Combustion Products: Carbon monoxide Toxic gases

VI. ACCIDENTAL RELEASE MEASURES

Health Consideration for Spill Response: Exposure to the spilled material may be irritating or harmful. Follow personal protective equipment recommendations found in Section VIII of this MSDS. Additional precautions may be necessary based on special circumstances created by the spill including; the material spilled, the quantity of the spill, the area in which the spill occurred. Also consider the expertise of employees in the area responding to the spill.

Spill Mitigation Procedures
General Methods: Prevent the spread of any spill to minimize harm to human health and the environment if safe to do so. Wear complete and proper personal protective equipment following the recommendation of Section VIII at a minimum. Dike with suitable absorbent material like granulated clay. Gather and store in a sealed container pending a waste disposal evaluation.

VII. HANDLING AND STORAGE

Handling: Wash thoroughly after handling. Avoid contact with material. Ground and bond containers when transferring material. Keep in air-tight containers- material is hygroscopic. "Empty" containers retain product residue (liquid and/or vapor) and can be dangerous. Use spark-proof tools and explosion-proof equipment. Remove contaminated clothing and wash before reuse.

Storage: Do not store near combustible materials. Limit quantity of material stored. Avoid exposure to sunlight or ultraviolet (UV) light sources. Keep away from sources of ignition. Keep container closed when not in use. Keep away from heat, sparks, and flame.

VIII. ENGINEERING CONTROLS AND PERSONAL PROTECTIVE EQUIPMENT

Engineering Controls: Facilities storing or using this material should be equipped with an eyewash and safety shower. Engineering controls must be designed to meet the OSHA chemical specific standard in 29 CFR 1910. Explosion proof exhaust ventilation should be used.

Protective Equipment

Respiratory Tract: Respirators should be selected by and used under the direction of a trained health and safety professional following requirements found in OSHA's respirator standard (29 CFR 1910.134) and ANSI's standard for respiratory protection (Z88.2-1992). A written respiratory protection program, including provisions for medical certification, training, fit testing, exposure assessments, maintenance, inspection, cleaning, and convenient, sanitary storage should be implemented.

Eyes: Wear chemically resistant safety glasses with side shields when handling this product. Wear additional eye protection such as chemical splash goggles and/or face shield when the possibility exists for eye contact with splashing or spraying liquid, or airborne material. Do not wear contact lenses. Have an eye wash station available.

Skin: Avoid skin contact by wearing chemically resistant gloves, an apron and other protective equipment depending upon conditions of use. Inspect gloves for chemical break-through and replace at regular intervals. Clean protective equipment regularly. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work.

IX. PHYSICAL DATA

Physical State:	COLORED LIQUID
Odor:	MODERATELY STRONG ALCOHOL
Solids Vol %:	4.0975
Solids Wt %:	5.7882
Material VOC lbs/gal:	6.6642
Material VOC gms/l:	800.3107
Weight per gallon:	7.0897

X. STABILITY AND REACTIVITY

Stability Information:	Stable.
Conditions to Avoid:	Avoid: heat, sparks, flame and oxidizing agents.
Chemical Incompatibility:	Oxidizing materials. Strong oxidizing agents. Nitrogen oxides. Strong acids. Strong alkalis.

XI. TOXICOLOGICAL INFORMATION

Chemical Name	CAS Number	LD50/LC50
Ethyl alcohol	64-17-5	Inhalation LC50 Rat : 20000 ppm/10H; Inhalation LC50 Mouse : 39 gm/m ³ /4H; Oral LD50 Rat : 7060 mg/kg; Oral LD50 Mouse : 3450 mg/kg
2-Propanol, 1-methoxy-	107-98-2	Inhalation LC50 Rat : 10000 ppm/5H; Oral LD50 Mouse : 11700 mg/kg; Dermal LD50 Rabbit : 13 gm/kg
Toluene	108-88-3	Inhalation LC50 Rat : 49 gm/m ³ /4H; Inhalation LC50 Mouse : 400 ppm/24H; Oral LD50 Rat : 636 mg/kg; Dermal LD50 Rabbit : 14100 uL/kg
Isobutyric acid, isobutyl ester	97-85-8	Inhalation LC50 Rat : 5000 ppm/6H; Oral LD50 Rat : 12800 mg/kg; Dermal LD50 Rabbit : >8600 mg/kg
Acetic acid, propyl ester	109-60-4	Oral LD50 Rat : 9370 mg/kg; Oral LD50 Mouse : 8300 mg/kg; Dermal LD50 Rabbit : >20 mL/kg
Isopropyl alcohol	67-63-0	Inhalation LC50 Rat : 16000 ppm/8H; Oral LD50 Rat : 5045 mg/kg; Oral LD50 Mouse : 3600 mg/kg; Dermal LD50 Rabbit : 12800 mg/kg
Methanol	67-56-1	Inhalation LC50 Rat : 64000 ppm/4H; Oral LD50 Rat : 5628 mg/kg; Oral LD50 Mouse : 7300 mg/kg; Dermal LD50 Rabbit : 15800 mg/kg

XII. ECOLOGICAL INFORMATION

Overview (for ingredients): No data available.

Ecological Toxicity Values:

XIII. DISPOSAL CONSIDERATIONS

Waste Description for Spent Product: The waste may be a "special" waste. Spent or discarded material is a hazardous waste.

Disposal Methods: Comply with all Local, State, Federal, and Provincial Environmental Regulations. Dispose of by incineration following Federal, State, Local, or Provincial regulations.

Potential EPA Waste Codes: If discarded, this product is considered a RCRA ignitable waste, D001.

Components Subject to USEPA Land Disposal Restrictions:

Toluene	108-88-3	6.82 %
Methanol	67-56-1	1.75 %

XIV. TRANSPORTATION INFORMATION

DOT Paint 3 UN1263 PG II
Quart or less ORM-D***Label:None

XV. REGULATORY INFORMATION

Toxic Substances Control Act (TSCA): A component (or components) of this product is not listed on the TSCA Inventory of Existing Chemical Substances.

Chemical Name	Regulation	CASRN	%
Toluene	SARA 313 Reportable:	108-88-3	6.82

Isopropyl alcohol	SARA 313 Reportable:	67-63-0	2.3
Methanol	SARA 313 Reportable:	67-56-1	1.75
Ethyl alcohol	California Proposition 65 Developmental Toxicity:	64-17-5	46.34
Toluene	California Proposition 65 Developmental Toxicity:	108-88-3	6.82
Ethanol	New Jersey Right To Know:	64-17-5	46.34
1-Methoxy-2-hydroxypropane	New Jersey Right To Know:	107-98-2	29.00
Toluene	New Jersey Right To Know:	108-88-3	6.82
Polyester Acrylate	New Jersey Right To Know:		5.79
2-Methylpropyl isobutyrate	New Jersey Right To Know:	97-85-8	3.27

XVI. ADDITIONAL INFORMATION

Other Information:

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MSDS glossary.