

1 PRODUCT AND COMPANY IDENTIFICATION

Product Name: RER 600

Product Number: 00000000000800217

Synonyms: 1-Methoxy-2-propanol acetate;
Propylene glycol monomethyl ether acetate
(PGMEA)

Company:
FUJIFILM Electronic Materials U.S.A., Inc.
80 Circuit Road
North Kingstown RI 02852

Emergency Telephone:
Transportation Emergency:
FOR ALL TRANSPORTATION ACCIDENTS,
CALL CHEMTREC: 1-800-424-9300

Medical Emergency (24HR):
FOR ANY HEALTH & MEDICAL
EMERGENCY, 24 HOURS /7 DAYS CALL:
1-800-365-8951

Non-emergency Telephone:
General Information:
FOR ALL MSDS REQUESTS & QUESTIONS,
CALL CUSTOMER SERVICE: 1-800-553-6546

Intended Use: Edge Bead Remover

2 HAZARDS IDENTIFICATION

Emergency Overview

Physical State: Liquid

Color: Colorless

Odor: Mild, solvent

CAUTION!

May cause eye irritation.

Combustible liquid.

Potential Health Effects

Inhalation: Vapors may irritate throat and respiratory system and cause coughing. Vapors may cause drowsiness and dizziness.

Eye Contact: May cause eye irritation. May cause redness and pain.

Skin Contact: Degreasing to skin. The product contains components which may penetrate skin.

Ingestion: May cause discomfort if swallowed.

Chronic Health Effects: Organic solvents may be absorbed into the body by inhalation and cause permanent damage to the nervous system, including the brain. Contains a substance/a group of substances which may cause harm to the unborn child.

Target Organ(s): | Eye | Central nervous system.

Potential Physical / Chemical Effects: COMBUSTIBLE.

OSHA Regulatory Status: When used for its intended purpose, this material is classified as hazardous in accordance with OSHA 29CFR 1910.1200.

Environment: The product contains a substance which has a photochemical ozone creation potential.

3 COMPOSITION / INFORMATION ON INGREDIENTS

General Information: The product contains: CAS-No. 108-65-6 contains an impurity: 2-Methoxypropanol acetate (CAS-no 70657-70-4) below 0.5 %.

Chemical Name	CAS-No.	Concentration*
†1-Methoxy-2-propanol acetate	108-65-6	99.5 - 100%

* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

† This chemical is hazardous according to OSHA/WHMIS criteria.

4 FIRST AID MEASURES

General: Thermal burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital.

Inhalation: Move injured person into fresh air and keep person calm under observation. Get medical attention if any discomfort continues.

Eye Contact: Immediately flush with plenty of water for up to 15 minutes. Remove any contact lenses and open eyes wide apart. Get medical attention if irritation persists after washing.

Skin Contact: Remove contaminated clothing. Wash skin with soap and water.

Ingestion: Rinse mouth thoroughly with water and give large amounts of milk or water to people not unconscious. Get medical attention if any discomfort continues.

5 FIRE-FIGHTING MEASURES

Extinguishing Media: Extinguish with foam, carbon dioxide, dry powder or water fog.

Unsuitable Extinguishing Media: None.

Special Fire Fighting Procedures: Use standard firefighting procedures and consider the hazards of other involved materials. Containers close to fire should be removed or cooled with water.

Unusual Fire & Explosion Hazards: During fire, gases hazardous to health may be formed. Solvent vapors may form explosive mixtures with air.

Hazardous Combustion Products: Carbon Dioxide, Carbon Monoxide

Protective Measures: Selection of respiratory protection for fire fighting: follow the general fire precautions indicated in the workplace. Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Flammability Class: 2

6 ACCIDENTAL RELEASE MEASURES

Personal Precautions: Extinguish all ignition sources. Avoid sparks, flames, heat and smoking. Ventilate. Avoid inhalation of vapors/spray and contact with skin and eyes. Wear suitable protective clothing. See Section 8 of the MSDS for Personal Protective Equipment.

Spill Cleanup Methods: Remove sources of ignition. Absorb spillage with non-combustible, absorbent material. For waste disposal, see section 13 of the MSDS.

Environmental Precautions: Avoid discharge into drains, water courses or onto the ground unless authorized by permit.

7 HANDLING AND STORAGE

Handling: Local exhaust is recommended. Avoid inhalation of vapors and spray mist and contact with skin and eyes. Wear approved safety goggles. Wear protective gloves and appropriate clothing to prevent skin contact. Do not smoke and do not spray near an open flame or other sources of ignition. The product is combustible. Vapors are heavier than air and may travel along the floor and in the bottom of containers. Vapors may be ignited by a spark, a hot surface or an ember. Ground container and transfer equipment to eliminate static electric sparks. Observe good industrial hygiene practices.

Storage: Follow rules for flammable liquids. Keep away from heat, sparks and open flame. Store in closed original container in a dry place.

8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Limits:

Chemical Name	Source	Type	Exposure Limits	Notes
1-Methoxy-2-propanol acetate	AIHA WEEL	TWA	100 ppm 541 mg/m ³	

Consult Canadian Provincial Regulations and/or Mexican Regulations on exposure limits, if applicable.

Engineering Controls: Use explosion-proof ventilation equipment. Provide adequate ventilation. Observe Occupational Exposure Limits and minimize the risk of inhalation of vapors. Provide easy access to water supply and eye wash facilities.

Respiratory Protection: If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. In the United States of America, if respirators are used, a program should be instituted to assure compliance with OSHA Standard 63 FR 1152, January 8, 1998. Use a NIOSH/MSHA approved air purifying respirator as needed to control exposure. Consult with respirator manufacturer to determine respirator selection, use, and limitations. Use positive pressure air supplied respirator for uncontrolled releases or when air purifying respirator limitations may be exceeded. Follow respirator protection program requirements (OSHA 1910.134 and

ANSI Z88.2) for all respirator use.

Eye Protection: Wear approved safety goggles.

Hand Protection: Wear protective gloves. Be aware that the liquid may penetrate the gloves. Frequent change is advisable. Suitable gloves can be recommended by the glove supplier.

Skin Protection: If prolonged or repeated contact is likely, chemical resistant clothing is recommended.

Hygiene Measures: Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9 PHYSICAL AND CHEMICAL PROPERTIES

Molecular Weight:	132
Physical State:	Liquid
Color:	Colorless
Odor:	Mild, solvent
Odor Threshold:	No data available.
pH:	Not applicable
Freezing Point:	No data available.
Boiling Point:	146°C (295°F)
Density:	0.966 g/cc
Specific Gravity (=Relative Density):	0.966
Vapor Pressure:	3.7 mmHg @20°C
Vapor Density (Air=1):	4.6 (Air=1)
Evaporation Rate:	0.3 (Butyl acetate=1)
Volatiles, % by vol:	No data available
Solubility in Water:	18.5 % @20°C
Solubility (Other):	No data available.
Partition Coefficient (n-Octanol/water):	No data available.
Flash Point:	47°C (117°F) (Setaflash Closed Cup)
Autoignition Temperature:	No data available.
Viscosity:	No data available.
Upper Flammability / Explosion limit in air %:	10
Lower Flammability / Explosion limit in air %:	1.3
Decomposition Temperature:	No data available.

10 STABILITY AND REACTIVITY

Stability: Stable under normal temperature conditions

Conditions to Avoid: Heat, sparks, flames.

Incompatible Materials: Strong acids. Strong oxidizing agents.

Hazardous Decomposition Products: None known.

Possibility of Hazardous Reactions: Will not occur.

11 TOXICOLOGICAL INFORMATION

Specified Substance(s)

Acute Toxicity:

Component Chemical Name	Test Results
1-Methoxy-2-propanol acetate	Dermal LD50 (Rabbit): > 5000 mg/kg
1-Methoxy-2-propanol acetate	Inhalation LC50 (6 hour(s), Rat): > 3000 ppm (v)
1-Methoxy-2-propanol acetate	Oral LD50 (Rat): 8532 mg/kg

Chronic Toxicity: Contains a substance/a group of substances which may cause harm to the unborn child.

Listed Carcinogens: None

Product Information

Other Acute: May cause eye irritation. Defats the skin. In high concentrations, vapors are narcotic and may cause headache, fatigue, dizziness and nausea.

Chronic Toxicity: Organic solvents may be absorbed into the body by inhalation and cause permanent damage to the nervous system, including the brain.

12 ECOLOGICAL INFORMATION

Ecotoxicity: The product components are not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Specified Substance(s)

Chemical Name	Test
1-Methoxy-2-propanol acetate	LC50 (96 hour(s), Fathead Minnow): 161 mg/l
1-Methoxy-2-propanol acetate	LC50 (48 hour(s), Daphnia): 408 mg/l

Mobility: The product contains organic solvents which will evaporate easily from all surfaces.

Persistence and Degradability: The degradability of the product has not been stated.

Bioaccumulation Potential: No data available on bioaccumulation.

Other Adverse Effects: The product contains a substance which has a photochemical ozone creation potential.

13 DISPOSAL CONSIDERATIONS

Disposal Methods: Disposal recommendations are based on material as supplied. Disposal must be in accordance with current applicable laws and regulations, and material characteristics at time of disposal.

RCRA Information: D001- IGNITABLE

14 TRANSPORT INFORMATION**DOT****UN No.:** UN1993**Proper Shipping Name:** Flammable liquids, n.o.s. (1-methoxy-2-propanol acetate)**Class:** 3**Packing Group:** III**Label(s):** 3

This material can be reclassified as a combustible liquid and is considered not regulated by ground transport when packaged in non-bulk packaging (<119 G). This exception is found in 49 CFR 173.150(f).

TDG**UN No.:** UN1993**Proper Shipping Name:** Flammable liquid, n.o.s. (1-methoxy-2-propanol acetate)**Class:** 3**Packing Group:** III**IATA****UN No.:** UN1993**Proper Shipping Name:** Flammable liquid, n.o.s. (1-methoxy-2-propanol acetate)**Class:** 3**Packing Group:** III**Label(s):** 3**IMDG****UN No.:** UN1993**Proper Shipping Name:** Flammable liquid, n.o.s. (1-methoxy-2-propanol acetate)**Class:** 3**Packing Group:** III**EmS No.:** F-E, S-E**15 REGULATORY INFORMATION**

Canadian Controlled Products Regulations: This product has been classified according to the hazard criteria of the Canadian Controlled Products Regulations, Section 33, and the MSDS contains all required information.

WHMIS Classification: B3, D2B

Mexican Dangerous Statement: This is a Mexican "dangerous" product.

Inventory Status: All ingredients are either listed or exempt from listing on TSCA.

TSCA: No component is listed on TSCA Sections 4(a), 5(a)(2), 5(e) or 12(b).

US Regulations

CERCLA Hazardous Substance List (40 CFR 302.4): None

SARA Title III

Section 302 Extremely Hazardous Substances (40 CFR 355, Appendix A): None

Section 311/312 (40 CFR 370):

Acute (Immediate) Chronic (Delayed) Fire Reactive Pressure Generating

Section 313 Toxic Release Inventory (40 CFR 372): None

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130): None

Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3): None

Drug Enforcement Act: None

State Regulations

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): None

Massachusetts Right-To-Know List: None

Michigan Critical Materials List (Michigan Natural Resources and Environmental Protection Act (Act. 451 of 1994)): None

Minnesota Hazardous Substances List: None

New Jersey Right-To-Know List: None

Pennsylvania Right-To-Know List: None

Rhode Island Right-To-Know List: None

16 OTHER INFORMATION

HAZARD RATINGS

National Fire Protection Association	Health Hazard	Fire Hazard	Reactivity Hazard	Special Hazard
NFPA	1	2	0	0

Hazardous Materials Information System	Health Hazard	Fire Hazard	Reactivity Hazard	Other
HMIS	1*	2	0	NA

0 - Minimal; 1- Slight; 2 - Moderate; 3 - Serious; 4 - Severe *- Chronic Health Effect

MSDS file: 11066_NA_EN_V1.0

Replaces file: 01066

Issue Date: 06-Mar-2007

Supersedes Date:

Disclaimer: THIS MATERIAL SAFETY DATA SHEET (MSDS) HAS BEEN PREPARED IN COMPLIANCE WITH THE FEDERAL OSHA HAZARD COMMUNICATION STANDARD, 29 CFR

1910.1200 AND THE CANADIAN CONTROLLED PRODUCT REGULATION (SOR/88-66). THE INFORMATION IN THIS MSDS SHOULD BE PROVIDED TO ALL WHO WILL USE, HANDLE, STORE, TRANSPORT, OR OTHERWISE BE EXPOSED TO THIS PRODUCT. THIS INFORMATION HAS BEEN PREPARED FOR THE GUIDANCE OF PLANT ENGINEERING, OPERATIONS AND MANAGEMENT AND FOR PERSONS WORKING WITH OR HANDLING THIS PRODUCT. FUJIFILM ELECTRONIC MATERIALS BELIEVES THIS INFORMATION TO BE RELIABLE AND UP TO DATE AS OF THE DATE OF PUBLICATION BUT, MAKES NO WARRANTY THAT IT IS. ADDITIONALLY, IF THIS MSDS IS MORE THAN THREE YEARS OLD, YOU SHOULD CONTACT FUJIFILM ELECTRONIC MATERIALS AT THE PHONE NUMBER 1-800-553-6546 (CUSTOMER SERVICE) TO MAKE CERTAIN THAT THIS DOCUMENT IS CURRENT.