

SAFETY DATA SHEET

Randolph G-4200 Thinner for Ranthane**1 – IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY UNDERTAKING**

PRODUCT NAME: **Randolph G-4200 Thinner for Ranthane**
 PRODUCT NUMBER: G-4200
 SUPPLIER: Consolidated Aircraft Coatings
 P.O. Box 3129, Riverside, CA92519, USA
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Date Prepared: 01/26/2015
By: Greg Albarian

2 - HAZARDS IDENTIFICATION

Highly flammable. Irritating to eyes and skin. Harmful: danger of serious damage to health by prolonged exposure through inhalation. Possible risk of harm to the unborn child. Harmful: may cause lung damage if swallowed. Vapors may cause drowsiness and dizziness.

CLASSIFICATION (1999/45) XI, XN, F, R10, R11, R20, R66, R67

3 – COMPOSITION /INFORMATION ON INGREDIENTS

Name	EC No.	CAS No.	Content %	Classification (67/548/EEC)
Methyl Ethyl Ketone	201-159-0	78-93-3	0-45%	XI, F, R11, R36/37, S9, S16, S25, S33
1-Methoxy- 2-Propyl Acetate	203-603-9	108-65-6	0-35%	XI, R10, R36, S25
Toluene	203-625-9	108-88-3	0-30%	XN, F, R11, R20, S16, S25, S29, S33

The Full Text for all R-Phrases and S-Phrases is displayed in Section 15

COMPOSITION COMMENTS

The data shown are in accordance with the latest EC Directives.

4- FIRST AID MEASURES**WARNING:**

As with all catalyzed polyurethanes, a fresh-air supplied mask is mandatory. Charcoal masks will not protect from polyisocyanates in the spray mist.

NOTICE:

Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.

INHALATION HEALTH RISKS AND SYMPTOMS OF EXPOSURE:

High concentrations may cause headaches and dizziness, are anesthetic, and may have other central nervous system effects, including death. Breathing vapor may irritate the nose and throat.

SKIN AND EYE CONTACT HEALTH RISKS AND SYMPTOMS OF EXPOSURE:

Eye contact is primary irritation. Chronic health effects are possible from long-term skin exposure to this material, including drying, cracking and irritation of the skin. Reacts with skin protein and moisture and can cause rash, scaling or blistering. Skin and eyes should be flushed with water for at least 15 minutes.

INGESTION HEALTH RISK AND SYMPTOMS OF EXPOSURE:

Harmful if swallowed.

HEALTH HAZARDS (ACUTE AND CHRONIC):

Overexposure may cause anesthesia, headache, nausea or dizziness. Breathing the vapors may irritate the nose and throat. Detectable amounts of chemicals or substances known to the state of California to cause cancer, birth defects, or other reproductive harm may be found in this product. Use care when handling chemical and petroleum products even though they are water reducible.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE TO THIS PRODUCT:

Preexisting eye, skin, heart, central nervous system and respiratory disorders may be aggravated by exposure to this product.

EMERGENCY AND FIRST AID PROCEDURES:

Eye Contact: Contact lens wearers should consult provider before handling. Flush with copious amounts of water. If there is eye contact, call a physician as soon as possible no matter how slight the injury appears to be. First aid must be started immediately, since delay can result in serious injury.

Skin Contact: Wash hands thoroughly with soap and water.

Inhalation: Remove to fresh air. If breathing stops, give artificial respiration. Consult a physician.

Ingestion: Do not induce vomiting. Keep person warm, quiet and get medical attention.

5- FIRE FIGHTING PROCEDURES**EXTINGUISHING MEDIA:**

CO₂, Dry Chemical, Foam, Water Fog

SPECIAL FIREFIGHTING PROCEDURES:

Provide respiratory protection against fumes generated during burning. Water stream will spread fire. Do not use water hose stream. Use full bunker gear in fire area (helmet with face shield, bunker coat, gloves, and rubber boots).

UNUSUAL FIRE AND EXPLOSION HAZARDS:

Keep containers tightly closed. Isolate from heat, sparks, and open flame. Closed containers may explode when exposed to extreme heat. Water may be used to cool closed containers to prevent pressure build-up and possible auto-ignition or explosion when exposed to extreme heat. Remove all non-essential personnel from fire area. Vapor is heavier than air and can travel considerable distances to a source of ignition and flashback. Never use welding or cutting torch on or near drum (even empty) because residue or product can ignite explosively. Flammable material

6-ACCIDENTAL RELEASE MEASURES**PERSONAL PRECAUTIONS:**

Wear protective clothing as described in Section 8.

ENVIRONMENTAL PRECAUTIONS:

Spillages or uncontrolled discharges into watercourses must immediately be alerted to Environmental Agency or other appropriate regulatory authority.

SPILL CLEANUP METHODS:

Keep combustibles away from spilled material. Extinguish all ignition sources. Avoid sparks, open flames, and smoking. Ventilate. Absorb in vermiculite, dry sand, or earth and place into containers for disposal.

7-HANDLING AND STORAGE**USAGE PRECAUTIONS:**

Keep away from heat, sparks and open flames. Avoid spilling, skin and eyes contact. Use with adequate ventilation and avoid excessive exposure to solvent vapors. Use approved respirator if air contamination exceeds the accepted level.

STORAGE PRECAUTIONS:

FLAMMABLE/Combustible. Keep away from oxidizers, open flames and other ignition sources. Keep unused contents in original container and tightly closed lids. Store in a cool, dry and well-ventilated place and at an ambient Temperature not to exceeding above 120° F.

STORAGE CLASS:

FLAMMABLE liquid storage.

8-EXPOSURE CONTROL/PERSONAL PROTECTION

Name	Workplace Exposure Limits	Remarks
Methyl Ethyl Ketone	ACGIH: 200 ppm TWA; 300 ppm STEL NIOSH: 200 ppm TWA; 590 mg/m ³ TWA 3000 ppm IDLH ; OSHA-Final PELs: 200 ppm TWA; 590 mg/m ³ TWA	Consult local authorities for acceptable exposure limits
1-Methoxy- 2-Propyl Acetate	ACGIH: None Listed NIOSH: None Listed OSHA-Final PELs: None Listed	Same As Above
Toluene	ACGIH: 50ppm TWA NIOSH: 100ppm TWA, 375 mg/m ³ TWA, 500 ppm IDLH OSHA-Final PELs: 200 ppm TWA	Same As Above

**PROTECTIVE EQUIPMENTS:****PROCESS CONDITIONS:****ENGINEERING MEASURES:**

legal exposure limits are not exceeded.

RESPIRATORY EQUIPMENT:**HANDPROTECTION:****EYE PROTECTION:****OTHER PROTECTION:****HYGIENE MEASURES:**

Provide eyewash station.

Provide adequate ventilation. Fully equipped spray booth is recommended to ensure the workers

Wear respirator with appropriate cartridge for organic solvents and chemicals.

Wear approved gloves such as Neoprene, Nitrile or Rubber types.

Wear splash-proof goggles.

Wear appropriate clothing to prevent any possible skin contact.

DO NOT SMOKE IN THE WORK AREA. Wash at the end of each work shift and before eating, drinking or smoking. Promptly remove contaminated clothing.

9- PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:	Liquid
COLOR:	Clear
ODOR:	Ketone characteristics
BOILING POINT:	172-302° F
RELATIVE DENSITY:	0.852 g/mL
VAPOR DENSITY:	Heavier than air
FLASH POINT:	21° F (-7° C) (Closed Cup)
FLAMMABILITY LIMITS:	1.4 (Lower %)
SOLUBILITY VALUE (g/100g H ₂ O @ 20°C):	Insoluble
VOLATILE ORGANIC COMPOUND (VOC):	871 g/L

10- STABILITY AND REACTIVITY**STABILITY:**

Stable under normal storage conditions.

CONDITIONS TO AVOID:

Strong oxidizers, acids and alkalis.

INCOMPATIBILITY (MATERIALS TO AVOID):

None known.

HAZARDOUS DECOMPOSITION OR BYPRODUCTS:

Thermal decomposition releases carbon monoxide and/or carbon dioxide.

HAZARDOUS POLYMERIZATION:

Will not occur under normal conditions

11-TOXICOLOGICAL INFORMATION

Methyl Ethyl Ketone (CAS# 78-93-3):LD50/rabbit/skin/draize test = 500mg/24H Moderate; LC50/mouse/inhalation = 32mg/m³/4H; Carcinogenicity: Not listed by ACGIH, IARC, NIOSH, NTP or OSHA.

1-Methoxy- 2-Propyl Acetate (CAS#108-65-6):Acute toxicity: Oral LD50: LD50 Oral - rat - 8,532 mg/kg Inhalation LC50: no data available. Dermal LD50:LD50 Dermal - rabbit - > 5,000 mg/kg. Skin corrosion/irritation: Skin - rabbit - No skin irritation. Serious eye damage/eye irritation : no data available. Respiratory or skin sensitization: Maximization Test - guinea pig - Did not cause sensitization on laboratory animals. Germ cell mutagenicity: no data available. Carcinogenicity: IARC: No possible or confirmed human carcinogen by IARC. ACGIH: Not identified as a carcinogen or potential carcinogen by ACGIH. NTP: Not identified as a known or anticipated carcinogen by NTP. OSHA: Not identified as a carcinogen or potential carcinogen by OSHA. Reproductive toxicity: no data available. Teratogenicity: no data available. Aspiration hazard: no data available. Potential health effects:

Inhalation: May be harmful if inhaled. May cause respiratory tract irritation. Ingestion: May be harmful if swallowed

Skin: May be harmful if absorbed through skin. May cause skin irritation. Eyes: May cause eye irritation. Synergistic effects : no data available

Toluene (CAS# 108-88-3): ACGIH: A4-Not Classifiable as a Human Carcinogen; IARC: Group 3 carcinogen; No other toxicological data available

12- ECOLOGICAL INFORMATION

Methyl Ethyl Ketone (CAS#78-93-3): Ecotoxicity: Fish/Fathead Minnow/LC50 = 3220mg/l; Environmental: Substance evaporates in water with T1/2=3D (rivers) to 12D (lakes); Physical: Substance photodegrades in air with T1/2=2.3 days.

1-Methoxy- 2-Propyl Acetate (CAS#108-65-6): Toxicity: Mortality LC50/- Salmo gairdneri = 100 - 180 mg/l -96 h; Toxicity to daphnia and other aquatic invertebrates. Immobilization EC50 - Daphnia magna (Water flea) > 500 mg/l - 48 h. Persistence and degradability: Readily biodegradable. Bioaccumulative potential: no data available. Mobility in soil: no data available. PBT and vPvB assessment: no data available. Other adverse effects: Biochemical Oxygen Demand (BOD): 0.36 mg/l, Chemical Oxygen Demand (COD) : 1.74 mg/g. An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Harmful to aquatic life.

Toluene (CAS#108-88-3): Ecotoxicity: No data available; Environmental: From soil, substance evaporates and is microbially biodegraded. In water, substance volatilizes and biodegrades; Physical: Photo chemically produced hydroxyl radicals degrade substance.

13 – DISPOSAL CONSIDERATIONS

Hazardous wastes should be sent to a RCRA approved incinerator or disposed of in a RCRA approved waste facility. Dispose of container and unused contents in accordance with federal, state and local requirements.

14 – TRANSPORT INFORMATION

DOT PROPER SHIPPING NAME: PAINT RELATED MATERIAL

PRIMARY HAZARD CLASS/DIVISION: 3

UN/UA NUMBER: UN1263

PACKING GROUP: II

IMO PROPER SHIPPING NAME: PAINT RELATED MATERIAL

IMO UN CLASS: 3

IMO UN NUMBER: 1263

IMO PACKING GROUP: II

IMO LABEL: FLAMMABLE LIQUID

IMO VESSEL STOWAGE: B

Air shipping this product is not advised and if done must be handled by a certified carrier according to IATA rules.



GHS LABEL:

DANGER

HIGHLY FLAMMABLE LIQUID AND VAPOR. VAPOR HARMFUL. CAUSES SERIOUS EYE IRRITATION. CAUSES SKIN IRRITATION. MAY CAUSE ALLERGIC SKIN REACTION. HARMFUL OR FATAL IF SWALLOWED AND ENTERS AIRWAYS.

Refer to MSDS for additional information on safe handling / use. - Keep out of reach of children. For Industrial Use Only.

Contains: 1-Methoxy-2-Propyl Acetate, Methyl Ethyl Ketone, and Toluene. This product contains one or more chemicals known to the State of California to cause cancer, birth defects, and/or other reproductive harm.

Hazards: H226: Flammable liquid and vapour. H360: May damage fertility or the unborn child. H402: Harmful to aquatic life. H301+H311+H331: Toxic if swallowed, inhaled and in contact with skin. H373: May cause damage to organs through prolonged or repeated exposure.

Precautionary Statement(s): P210: Keep away from heat/sparks/open flames/hot surfaces. – No smoking. P403+P233: Store in a well-ventilated place. Keep container tightly closed. P202: Do not handle until all safety precautions have been read and understood. P243: Use only non-sparking tools. P280: Wear protective gloves/protective clothing/eye protection/face protection. P303+P361+P353: IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower. P308+P313: IF exposed or concerned: Get medical advice/ attention. PP370+P378: In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.

First Aid: Inhalation - Move person to fresh air. If symptoms occur obtain medical attention.

Skin Contact - Wash affected skin with soap and water. If symptoms occur obtain medical attention.

Eye Contact - If substance has got into the eyes, immediately wash out with plenty of water for at least 15 minutes. If symptoms occur obtain medical attention. **Ingestion** - Do not induce vomiting. Drink one glass of water. If symptoms occur obtain medical attention.

15-REGULATORY INFORMATION

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CODES:



XN and XI



F

- XI=harmful
- F=highly flammable

R-Phrases:

R10: Flammable
 R11: Highly flammable
 R20: Harmful by inhalation
 R36: Irritating to eyes
 R36/37: Irritating to eyes and respiratory system

S-Phrases:

S9: Keep container in a well-ventilated place
 S16: Keep away from sources of ignition - No smoking
 S25: Avoid contact with eyes
 S29: Do not empty into drains
 S33: Take precautionary measures against static discharges

16- DISCLAIMER

Above information is based on data supplied to us and is believed to be correct. Since the information contained herein may be applied under conditions beyond our control and with which we may be unfamiliar and since the data made available subsequent to the date hereof may suggest modifications of the information, we do not assume responsibility for the results of its use. This information is furnished upon the condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose. It is the user's obligation to determine the safe use of it.