SAFETY DATA SHEET

Randolph Nitrate Thinner 286

1 – IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY UNDERTAKING

PRODUCT NAME:	**Randolph Nitrate Thinner 286**
PRODUCT NUMBER:	**286**
SUPPLIER:	Consolidated Aircraft Coatings P.O. Box 3129, Riverside, CA 92519, USA 4343 Fort Drive, Riverside, CA 92509, USA (951) 684-4280 (951) 809-7144 (760) 782-1947
EMERGENCY TELEPHONE:	(800) 424-9300 (Chemtrec- US) (703) 527-3887 (International – Call Collect)

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, R11, R20, R66, R67

3 – COMPOSITION /INFORMATION ON INGREDIENTS

Name	EC No.	CAS No.	Content %	Classification (67/548/EEC)
Toluene	203-625-9	108-88-3	35-65%	XN, F, R11, R20, S16, S25, S29, S33
Acetone	200-662-2	67-64-1	1-25%	XI, F, R11, R36, R66, R67, S16, S26, S9
Glycol Ether.PM Acetate	203-603-9	108-65-6	10-40%	XI, R10, R36, S25, S16, S36/37/39
Ethyl Acetate	205-500-4	141-78-6	15-45%	XI, F, R11, R36, R66, R67, S16, S26, 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

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:
Breathing vapor may irritate the nose and throat. Central nervous system effects including excitation, euphoria, contracted eye pupil dizziness, blurred vision, fatigue, nausea, headache, loss of consciousness, respiratory arrest and sudden death could occur on long term and/or high concentration exposures to vapors.
SKIN AND EYE CONTACT HEALTH RISKS AND SYMPTOMS OF EXPOSURE:
Contact with the skin or eyes may cause irritation. Prolonged or repeated contact can cause moderate irritation, defatting and/or dermatitis. Skin and eyes should be flushed with water for at least 15 minutes.
INGESTION HEALTH RISK AND SYMPTOMS OF EXPOSURE:
Preexisting eye, skin, heart, central nervous system and respiratory disorders may be aggravated by exposure to this product.
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.
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:
Remove victim to fresh air and restore breathing if required. Call a physician if required. If breathing stops give artificial respiration. Keep person warm. Never give anything by mouth to an unconscious person. Do not induce vomiting. If spontaneous vomiting occurs, keep head below hips to prevent aspiration of liquid into the lungs. Vapors may irritate the nose and throat.

5- FIRE FIGHTING PROCEDURES

EXTINGUISHING MEDIA:
CO_2, Dry Chemical, Water Fog
SPECIAL FIREFIGHTING PROCEDURES:
Do not use a direct stream of water. Product may float and can be reignited on the surface of the water. Do not enter a confined area without full bunker gear including a positive-pressure NIOSH-approved self-contained breathing apparatus. Decomposition products may form toxic materials.
UNUSUAL FIRE AND EXPLOSION HAZARDS:
Never use welding or cutting torch on or near drum (even empty) because residue or product can ignite explosively. Vapors are heavier than air and may travel along the ground or be moved by ventilation and ignited by pilot lights, flames and other ignition sources at locations distant from the material handling point. 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^{o}F.
STORAGE CLASS:
FLAMMABLE liquid storage.

8-EXPOSURE CONTROL/PERSONAL PROTECTION

Name	Workplace Exposure Limits	Remarks
Toluene	ACGIH: 50ppm TWA NIOSH: 100ppm TWA, 375 mg/m^3 TWA, 500 ppm IDLH OSHA-Final PELs: 200 ppm TWA	Consult local authorities for acceptable exposure limits
Acetone	ACGIH: 500 ppm TWA; 750 ppm STEL NIOSH: 250 ppm TWA; 590 mg/m3 TWA 2500 ppm IDLH (10% LEL) OSHA-Final PELs: 1000 ppm TWA; 2400 mg/m3 TWA	Same As Above
Glycol Ether.PM Acetate	ACGIH: 2 mg/m^3 TWA; 50 ppm Workplace Environmental Exposure Levels (WEEL) Guide. NIOSH, OSHA-Final PELs: Not Listed	Same As Above
Ethyl Acetate	ACGIH: 400 ppm TWA NIOSH: 400 ppm TWA; 1400 mg/m3 TWA 2000 ppm IDLH OSHA-Final PELs: 400 ppm TWA; 1400 mg/m3 TWA	Same As Above

PROTECTIVE EQUIPMENTS:	
PROCESS CONDITIONS:	Provide eyewash station.
ENGINEERING MEASURES:	Provide adequate ventilation. Fully equipped spray booth is recommended to ensure the workers legal exposure limits are not exceeded.
RESPIRATORY EQUIPMENT:	Wear respirator with appropriate cartridge for organic solvents and chemicals.
HANDPROTECTION:	Wear approved gloves such as Neoprene, Nitrile or Rubber types.
EYE PROTECTION:	Wear splash-proof goggles.
OTHER PROTECTION:	Wear appropriate clothing to prevent any possible skin contact.
HYGIENE MEASURES:	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:	175-300° F
RELATIVE DENSITY:	0.874 g/mL
VAPOR DENSITY:	Heavier than air
FLASH POINT:	43° F (6° C) (Closed Cup)
FLAMMABILITY LIMITS:	NA (Lower%)
SOLUBILITY VALUE (g/100g H_2O @ 20°C):	Insoluble
VOLATILE ORGANIC COMPOUND (VOC):	872 g/L

10- STABILITY AND REACTIVITY

STABILITY:
Stable
CONDITIONS TO AVOID:
Heat and fires. Ignition sources.
INCOMPATIBILITY (MATERIALS TO AVOID):
Strong alkali or strong oxidizers. This material may dissolve some plastics, rubber compounds or coatings. May react strong with acids while in liquid form .
HAZARDOUS DECOMPOSITION OR BYPRODUCTS:
Hydrogen chloride and very small amounts of phosgene and chlorine.
HAZARDOUS POLYMERIZATION:
N/A

11-TOXICOLOGICAL INFORMATION

Toluene (CAS# 108-88-3): ACGIH: A4-Not Classifiable as a Human Carcinogen; IARC: Group 3 carcinogen; No other toxicological information available.
Acetone (CAS#67-64-1) : LD50/LC50: Dermal, guinea pig: LD50 = >9400 uL/kg; Draize test, rabbit, eye: 20 mg Severe; Draize test, rabbit, eye: 20 mg/24H Moderate; Draize test, rabbit, eye: 10 uL Mild; Draize test, rabbit, skin: 500 mg/24H Mild; Inhalation, mouse: LC50 = 44 gm/m3/4H; Inhalation, rat: LC50 = 50100 mg/m3/8H; Oral, mouse: LD50 = 3 gm/kg; Oral, rabbit: LD50 = 5340 mg/kg; Oral, rat: LD50 = 5800 mg/kg; Carcinogenicity: Not listed by ACGIH, IARC, NTP, or CA Prop 65. Epidemiology: In a series of studies, no statistically significant differences in causes of death or clinical laboratory results were observed in 948 employees exposed to up to 1070 ppm acetone over 23 years. Teratogenicity: Animal studies have only shown harmful effects in the offspring of animals exposed to doses which also produced significant maternal toxicity. Reproductive Effects: During the Stewart et al. study; four adult female volunteers were exposed 7.5 hours to acetone vapor at a nominal concentration of 1000 ppm. Three of the four women experienced premature menstrual periods which were attributed to the acetone exposure. Mutagenicity: Sex chromosome loss and nondisjunction(Yeast - Saccharomyces cerevisiae) = 47600 ppm; Cytogenetic analysis(Rodent - hamster Fibroblast)= 40 gm/L. Neurotoxicity: No information found.
Glycol Ether.PM 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: Maximisation 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.
Ethyl Acetate (CAS# 141-78-6): **LD50/LC50:** Inhalation, mouse: LC50 = 45 gm/m3/2H; Inhalation, rat: LC50 = 200 gm/m3; Oral, mouse: LD50 = 4100 mg/kg; Oral, rabbit: LD50 = 4935 mg/kg; Oral, rat: LD50 = 5620 mg/kg; Skin, rabbit: LD50 = >20 mL/kg;
Carcinogenicity: Not listed by ACGIH, IARC, NTP, or CA Prop 65. Epidemiology**:** No information available. Teratogenicity: No information available. Reproductive Effects: No information available. Mutagenicity: Cytogenetic Analysis: hamster fibroblast 9g/L Sex Chromosome Loss/Non-disjunction: S. cerevisiae 24400 ppm. Neurotoxicity**:** No information available.

12- ECOLOGICAL INFORMATION

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
Acetone (CAS#67-64-1) : Ecotoxicity: Fish: Rainbow trout: 5540 mg/l; 96-hr; LC50Fish: Bluegill/Sunfish: 8300 mg/l; 96-hr; LC50 No data available. Environmental: Volatilizes, leeches, and biodegrades when released to soil. TERRESTRIAL FATE: If released on soil, acetone will both volatilize and leach into the ground. Acetone readily biodegrades and there is evidence suggesting that it biodegrades fairly rapidly in soils. AQUATIC FATE: If released into water, acetone will probably biodegrade. It is readily biodegradable in screening tests, although data from natural water are lacking. It will also be lost due to volatilization (estimated half-life 20 hr from a model river). Adsorption to sediment should not be significant. Physical: ATMOSPHERIC FATE: In the atmosphere, acetone will be lost by photolysis and reaction with photo chemically produced hydroxyl radicals. Half-life estimates from these combined processes are 79 and 13 days in January and June, respectively, for an overall annual average of 22 days. Therefore considerable dispersion should occur. Being miscible in water, wash out by rain should be an important removal process. This process has been confirmed around Lake Shinsei-ko in Japan. There acetone was found in the air and rain as well as the lake.
Glycol Ether.PM 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.
Ethyl Acetate (CAS# 141-78-6): Ecotoxicity: Fish: Fathead Minnow: 230mg/L; 96H; Daphnid LC50=2500 mg/L/96H Golden orfe LC50=270 mg/L/48H. Environmental: Terrestrial: Expected to have high mobility in soil. Volatilization of ethyl acetate from moist soil surfaces is expected to be important. Aquatic: Not expected to adsorb to suspended solids and sediment in water. Atmospheric: Expected to exist solely as a vapor in the ambient atmosphere. Vapor-phase ethyl acetate is degraded in the atmosphere by reaction with photo-chemically-produced hydroxyl radicals; the half-life for this reaction in air is estimated to be 10 days. Physical: Substance biodegrades at a high rate with little bioconcentration

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: Randolph Nitrate Thinner 286
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.

15 – REGULATORY INFORMATION

LABELLING


XN and XI


F

- XN and XI=harmful
- F=highly flammable

R-Phrases:
R10: Flammable
R11: Highly flammable
R20: Harmful by inhalation
R36: Irritating to eyes
R66: Repeated exposure may cause skin dryness or cracking
R67: Vapors may cause drowsiness and dizziness

S-Phrases:
S9: Keep container in a well-ventilated place
S16: Keep away from sources of ignition - No smoking
S25: Avoid contact with eyes
S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice
S29: Do not empty into drains
S33: Take precautionary measures against static discharges
S36/37/39: Wear suitable protective clothing, gloves and eye/face protection

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.