



MATERIAL SAFETY DATA SHEET

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Revised 4/11/00
Replaces 3/29/00
Printed 4/22/02
MSDS ID: AA 00115865

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: 815-MIL RA ROSIN FLUX BULK
MANUFACTURER'S NAME: ALPHA METALS, INC
ADDRESS: 600 ROUTE 440
JERSEY CITY, NJ 07304
TRANSPORT EMERGENCY #: CHEMTREC: 1-800-424-9300
BUSINESS PHONE: 1-201-434-6778

2. INGREDIENT AND EXPOSURE LIMIT INFORMATION

CHEMICAL NAME	CAS #	% W/W	OSHA PEL - TWA
DIMETHYL FORMAMIDE	68-12-2	1 - 5	10 ppm TWA; 30 mg/m3 TWA
ETHANOL	64-17-5	1 - 5	1000 ppm TWA; 1900 mg/m3 TWA
GUM ROSIN	8050-09-7	30 - 40	NO PEL DATA
ISOPROPANOL	67-63-0	40 - 50	400 ppm TWA; 980 mg/m3 TWA

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: MODERATE EYE IRRITANT.
HIGHLY FLAMMABLE
HARMFUL BY INHALATION.
MILD GASTROINTESTINAL TRACT IRRITANT.
MINOR RESPIRATORY TRACT IRRITANT.
CAUSES MILD SKIN IRRITATION

HMIS RATING SYSTEM:
Health: 2 ; Flammability: 3 ; Reactivity: 0 ; Protection: B

NFPA RATING SYSTEM:
N,N-DIMETHYLFORMAMIDE health-1; flammability-2; reactivity-0
ETHYL ALCOHOL health-0; flammability-3; reactivity-0
ISOPROPYL ALCOHOL health-1; flammability-3; reactivity-0

ROUTES OF ENTRY: INHALATION; INGESTION; SKIN CONTACT; EYE CONTACT
TARGET ORGANS: EYES; BLOOD; LIVER; SKIN; NERVOUS SYSTEM; RESPIRATORY TRACT

MEDICAL CONDITIONS AGGRAVATED: NO MEDICAL CONDITIONS AFFECTED BY EXPOSURE.
EYE DISEASE; LIVER DISEASE; SKIN DISEASE
INCLUDING ECZEMA AND SENSITIZATION;
RESPIRATORY DISEASE INCLUDING ASTHMA AND
BRONCHITIS

IMMEDIATE (ACUTE) SYMPTOMS OVER-EXPOSURE BY ROUTE OF EXPOSURE:
INHALATION: CAN CAUSE MINOR RESPIRATORY IRRITATION, DIZZINESS, WEAKNESS,



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3. HAZARDS IDENTIFICATION (Cont.)

FATIGUE, NAUSEA, AND HEADACHE.
MAY CAUSE RESPIRATORY TRACT SENSITIZATION, CHARACTERIZED BY
ASTHMA-LIKE SYMPTOMS SUCH AS TIGHTNESS IN THE CHEST,
DIFFICULTY BREATHING, AND WHEEZING MAY RESULT FROM PROLONGED
OR REPEATED INHALATION OF DUST/PROCESSING FUMES OF THIS
PRODUCT. IRRITATION MAY BE DELAYED FOR SEVERAL HOURS.

EYES: CAN CAUSE MODERATE IRRITATION, TEARING AND REDDENING, BUT
NOT LIKELY TO PERMANENTLY INJURE EYE TISSUE.

SKIN CONTACT: CAN CAUSE MINOR SKIN IRRITATION, DEFATTING, AND DERMATITIS.
MAY CAUSE SKIN SENSITIZATION, AN ALLERGIC REACTION, WHICH
BECOMES EVIDENT ON RE EXPOSURE TO THIS MATERIAL.

SKIN ABSORPTION: NO ABSORPTION HAZARD IN NORMAL INDUSTRIAL USE.

INGESTION: MILDLY IRRITATING TO MOUTH, THROAT, AND STOMACH. CAN CAUSE
ABDOMINAL DISCOMFORT.

LONG TERM (CHRONIC) HEALTH EFFECTS:

CARCINOGENICITY: NONE OF THE SUBSTANCES HAVE BEEN SHOWN TO CAUSE CANCER IN
LONG TERM ANIMAL STUDIES. NOT A CARCINOGEN ACCORDING TO NTP,
IARC, OR OSHA.

REPRODUCTION: NO DATA AVAILABLE TO INDICATE PRODUCT OR ANY COMPONENTS
PRESENT AT GREATER THAN 0.1% MAY CAUSE BIRTH DEFECTS.

MUTAGENICITY: NO DATA AVAILABLE TO INDICATE PRODUCT OR ANY COMPONENTS
PRESENT AT GREATER THAN 0.1% IS MUTAGENIC OR GENOTOXIC.

4. FIRST AID MEASURES

SKIN EXPOSURE: WASH WITH SOAP AND WATER. GET MEDICAL ATTENTION IF
IRRITATION DEVELOPS OR PERSISTS.

EYE EXPOSURE: FLUSH EYES WITH PLENTY OF WATER FOR AT LEAST 20 MINUTES
RETRACTING EYELIDS OFTEN. TILT THE HEAD TO PREVENT CHEMICAL
FROM TRANSFERRING TO THE UNCONTAMINATED EYE. GET IMMEDIATE
MEDICAL ATTENTION.

INHALATION: REMOVE TO FRESH AIR. IF BREATHING IS DIFFICULT, HAVE A
TRAINED INDIVIDUAL ADMINISTER OXYGEN.

INGESTION: MINIMAL RISK OF HARM IF SWALLOWED. DO NOT INDUCE VOMITING.
SEEK MEDICAL ATTENTION IMMEDIATELY. PROVIDE MEDICAL CARE
PROVIDER WITH THIS MSDS.

NOTES TO DOCTOR: NO ADDITIONAL FIRST AID INFORMATION AVAILABLE

5. FIRE FIGHTING MEASURES

FLAMMABILITY SUMMARY: HIGHLY FLAMMABLE
FLASH POINT: 12 deg. C
AUTOIGNITION TEMPERATURE: 399 deg. C
EXPLOSIVE LIMITS % IN AIR: N/E /



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5. FIRE FIGHTING MEASURES (Cont.)

EXTINGUISHING MEDIA: USE ALCOHOL RESISTANT FOAM, CARBON DIOXIDE, OR DRY CHEMICAL EXTINGUISHING AGENTS. WATER MAY BE INEFFECTIVE BUT WATER SPRAY CAN BE USED EXTINGUISH A FIRE IF SWEEPED ACROSS THE BASE OF THE FLAMES. WATER CAN ABSORB HEAT AND KEEP EXPOSED MATERIAL FROM BEING DAMAGED BY FIRE.

FIRE AND EXPLOSION HAZARDS: VAPORS MAY BE IGNITED BY SPARKS, FLAMES OR OTHER SOURCES OF IGNITION IF MATERIAL IS ABOVE THE 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. FLAMMABLE LIQUID. CAN RELEASE VAPORS THAT FORM EXPLOSIVE MIXTURES AT TEMPERATURES AT OR ABOVE THE FLASH POINT. 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.

FIRE FIGHTING METHODS: WILL NOT BURN, NO SPECIAL INSTRUCTIONS AVAILABLE. USE METHODS APPROPRIATE FOR SURROUNDING MATERIALS. FLAMMABLE COMPONENT(S) OF THIS MATERIAL MAY BE LIGHTER THAN WATER AND BURN WHILE FLOATING ON THE SURFACE. USE METHODS FOR THE SURROUNDING FIRE.

HAZARDOUS COMBUSTION PRODUCTS: CARBON MONOXIDE, CARBON DIOXIDE.

6. ACCIDENTAL RELEASE MEASURES

PRECAUTIONS AND EQUIPMENT: NO ADVERSE HEALTH EFFECTS EXPECTED FROM THE CLEAN-UP OF SPILLED MATERIAL. FOLLOW PERSONAL PROTECTIVE EQUIPMENT RECOMMENDATIONS FOUND IN SECTION VIII OF THIS MSDS. EVAPORATION OF VOLATILE SUBSTANCES CAN LEAD TO THE DISPLACEMENT OF AIR CREATING AN ENVIRONMENT THAT CAN CAUSE ASPHYXIATION.

METHODS FOR CLEAN-UP: NO SPECIAL SPILL CLEAN-UP CONSIDERATIONS. COLLECT AND DISCARD IN REGULAR TRASH. SHUT OFF IGNITION SOURCES; INCLUDING ELECTRICAL EQUIPMENT AND FLAMES. DO NOT ALLOW SMOKING IN THE AREA.

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7. HANDLING AND STORAGE

HANDLING MEASURES: NO SPECIAL HANDLING INSTRUCTIONS DUE TO TOXICITY. AS WITH ALL CHEMICALS, GOOD INDUSTRIAL HYGIENE PRACTICES SHOULD BE FOLLOWED WHEN HANDLING THIS MATERIAL. AVOID CONTACT WITH MATERIAL, AVOID BREATHING DUSTS OR FUMES, USE ONLY IN A WELL VENTILATED AREA. WASH THOROUGHLY AFTER HANDLING; DO NOT GET IN EYES, ON SKIN AND CLOTHING; 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. REMOVE CONTAMINATED CLOTHING AND WASH BEFORE REUSE; USE SPARK-PROOF TOOLS AND EXPLOSION-PROOF EQUIPMENT

STORAGE MEASURES: NO SPECIAL REQUIREMENTS
KEEP AWAY FROM SOURCES OF IGNITION; STORE IN A TIGHTLY CLOSED CONTAINER; DO NOT STORE NEAR COMBUSTIBLE MATERIALS; STORE IN A COOL DRY PLACE; KEEP CONTAINER CLOSED WHEN NOT IN USE

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

ENGINEERING MEASURES: NO ENGINEERING CONTROLS ARE LIKELY TO BE REQUIRED TO MAINTAIN OPERATOR COMFORT UNDER NORMAL CONDITIONS OF USE.
ENGINEERING CONTROLS MUST BE DESIGNED TO MEET THE OSHA CHEMICAL SPECIFIC STANDARD IN 29 CFR 1910. USE PROCESS ENCLOSURES, LOCAL EXHAUST VENTILATION, OR OTHER ENGINEERING CONTROLS TO CONTROL AIRBORNE LEVELS BELOW RECOMMENDED EXPOSURE LIMITS; FACILITIES STORING OR USING THIS MATERIAL SHOULD BE EQUIPPED WITH AN EYEWASH AND SAFETY SHOWER.

RESPIRATORY PROTECTION: NO RESPIRATORY PROTECTION REQUIRED UNDER NORMAL CONDITIONS OF USE.
FOLLOW A RESPIRATORY PROTECTION PROGRAM THAT MEETS 29 CFR 1910.134 AND ANSI Z88.2 REQUIREMENTS WHENEVER WORK PLACE CONDITIONS WARRANT THE USE OF A RESPIRATOR. RESPIRATORY PROTECTION MAY BE REQUIRED IN ADDITION TO VENTILATION DEPENDING UPON CONDITIONS OF USE. WEAR A NIOSH APPROVED RESPIRATOR IF ANY EXPOSURE IS POSSIBLE.

EYE PROTECTION: NO SPECIAL REQUIREMENTS UNDER NORMAL INDUSTRIAL USE.
WEAR GOGGLES AND A FACE SHIELD

SKIN PROTECTION: NOT NORMALLY CONSIDERED A SKIN HAZARD. WHERE USE CAN RESULT IN SKIN CONTACT, PRACTICE GOOD PERSONAL HYGIENE. WASH HANDS AND OTHER EXPOSED AREAS WITH MILD SOAP AND WATER BEFORE EATING, DRINKING, AND WHEN LEAVING WORK.

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8. EXPOSURE CONTROLS AND PERSONAL PROTECTION (Cont.)

WHERE CONTACT IS LIKELY, WEAR CHEMICAL RESISTANT GLOVES, A CHEMICAL SUIT, RUBBER BOOTS, AND CHEMICAL SAFETY GOGGLES PLUS A FACE SHIELD
NO INFORMATION AVAILABLE; NEOPRENE; NITRILE

GLOVES:

CONTROL PARAMETERS:

CHEMICAL NAME	TLV-TWA	STEL	CEILING
DIMETHYL FORMAMIDE	10 ppm TWA; 30 mg/m ³ TWA		
ETHANOL	1000 ppm TWA; 1880 mg/m ³ TWA		
GUM ROSIN	sensitizer; reduce exposure to as low as possible		
ISOPROPANOL	(400) ppm TWA; (983) mg/m ³ TWA	(500) ppm STEL; (1230) mg/m ³ STEL	

9. PHYSICAL AND CHEMICAL PROPERTIES

COLOR: AMBER
ODOR: ALCOHOL
pH: N/A
VAPOR DENSITY: HEAVIER THAN AIR. VAPORS THAT EVOLVE FROM THIS PRODUCT WILL TEND TO SETTLE AND ACCUMULATE NEAR THE FLOOR.
SPECIFIC GRAVITY: 0.8840
SOLUBILITY IN WATER: COMPLETE; 100%
VAPOR PRESSURE, mm Hg at 20C: 33.000000
BOILING POINT (C): 90

10. STABILITY AND REACTIVITY

DECOMPOSITION PRODUCTS: CARBON DIOXIDE; CARBON MONOXIDE
INCOMPATIBLE MATERIALS: STRONG OXIDIZING AGENTS
CONDITIONS TO AVOID: NONE KNOWN
CONTAMINATION; ELEVATED TEMPERATURES

11. TOXICOLOGICAL INFORMATION

COMPONENT TOXICOLOGY DATA (NIOSH)
CHEMICAL NAME LD50/LC50
FORMAMIDE, N,N-DIMETHYL- Inhalation LC50 Mouse : 9400 mg/m³/2H;



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11. TOXICOLOGICAL INFORMATION (Cont.)

ETHYL ALCOHOL

Oral LD50 Rat : 2800 mg/kg; Oral LD50
Mouse : 3700 mg/kg; Dermal LD50 Rabbit
: 4720 mg/kg

Inhalation LC50 Rat : 20000 ppm/10H;

Inhalation LC50 Mouse : 39 gm/m3/4H;

Oral LD50 Rat : 7060 mg/kg; Oral LD50

Mouse : 3450 mg/kg

ISOPROPYL ALCOHOL

Inhalation LC50 Rat : 16000 ppm/8H;

Oral LD50 Rat : 5045 mg/kg; Oral LD50

Mouse : 3600 mg/kg; Dermal LD50 Rabbit

: 12800 mg/kg

12. ECOLOGICAL INFORMATION

OVERVIEW: THIS MATERIAL IS NOT EXPECTED TO BE HARMFUL TO THE ECOLOGY.
MOBILITY: NO DATA
PERSISTENCE: NO DATA
DEGRADABILITY: NO DATA

13. DISPOSAL CONSIDERATIONS

WASTE DESCRIPTION: SPENT OR DISCARDED MATERIAL IS A HAZARDOUS WASTE.
DISPOSAL METHODS: DISPOSE OF BY INCINERATION FOLLOWING FEDERAL, STATE,
LOCAL, OR PROVINCIAL REGULATIONS.
EPA WASTE CODES: D001

14. TRANSPORT INFORMATION

SHIPPING BASIC DESCRIPTION: DOT & IATA: FLAMMABLE LIQUID, N.O.S., (ISOPROPYL
ALCOHOL) 3, UN/NA1993, PGII, LABEL REQUIRED:
FLAMMABLE LIQUID

15. REGULATORY INFORMATION

TSCA STATUS: ALL COMPONENTS OF THIS PRODUCT ARE LISTED ON THE TSCA INVENTORY
OF EXISTING CHEMICAL SUBSTANCES.
REGULATED CHEMICALS:

CHEMICAL NAME		REGULATION
N,N-DIMETHYLFORMAMIDE	68-12-2	SARA 313



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15. REGULATORY INFORMATION (Cont.)

CERCLA REGULATED CHEMICALS AND REPORTABLE QUANTITY (RQ):

16. OTHER INFORMATION

The information contained herein is based on data considered accurate. However, no warranty is expressed or implied regarding the accuracy of these data or the results to be obtained from the use thereof. Additionally, Alpha Metals, Inc. assumes no responsibility for injury to the vendee or third persons proximately caused by the material even if reasonable safety procedures are followed. Furthermore, vendee assumes the risk in his use of the material.