



MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: ALPHA EF-6000 FLUX

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
ISOPROPANOL	67-63-0	96 - 99	400 ppm TWA; 980 mg/m3 TWA
SUCCINIC ACID	110-15-6	1 - 3	N/E

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: MODERATE TO SEVERE EYE IRRITANT.
HIGHLY FLAMMABLE
MODERATE GASTROINTESTINAL TRACT IRRITANT.
MINOR RESPIRATORY TRACT IRRITANT.
CAUSES MILD SKIN IRRITATION

HMIS RATING SYSTEM:
Health: 1 ; Flammability: 3 ; Reactivity: 0 ; Protection: B

NFPA RATING SYSTEM:
ISOPROPYL ALCOHOL health-1; flammability-3; reactivity-0

ROUTES OF ENTRY: EYE CONTACT; SKIN CONTACT; INHALATION
TARGET ORGANS: SKIN; RESPIRATORY TRACT; EYES; NERVOUS SYSTEM
MEDICAL CONDITIONS AGGRAVATED: RESPIRATORY DISEASE INCLUDING ASTHMA AND BRONCHITIS

IMMEDIATE (ACUTE) SYMPTOMS OVER-EXPOSURE BY ROUTE OF EXPOSURE:
INHALATION: CAN CAUSE MINOR RESPIRATORY IRRITATION, DIZZINESS, WEAKNESS, FATIGUE, NAUSEA, AND HEADACHE.
IRRITATION MAY BE DELAYED FOR SEVERAL HOURS.
EYES: 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 CONTACT: CAN CAUSE MINOR SKIN IRRITATION, DEFATTING, AND DERMATITIS.
SKIN ABSORPTION: NO ABSORPTION HAZARD IN NORMAL INDUSTRIAL USE.
INGESTION: IRRITATING TO MOUTH, THROAT, AND STOMACH. CAN CAUSE ABDOMINAL DISCOMFORT, NAUSEA, VOMITING AND DIARRHEA.



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3. HAZARDS IDENTIFICATION (Cont.)

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.

4. FIRST AID MEASURES

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

EYE EXPOSURE: IMMEDIATELY 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 AND MONITOR THE EYE DAILY AS ADVISED BY YOUR PHYSICIAN.

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

INGESTION: DO NOT INDUCE VOMITING AND SEEK MEDICAL ATTENTION IMMEDIATELY. DRINK TWO GLASSES OF WATER OR MILK TO DILUTE. 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: 450 deg. C

EXPLOSIVE LIMITS VOLUME % IN AIR: Lower-2.0 Upper-12.0

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.

FIRE FIGHTING METHODS: DO NOT ENTER FIRE AREA WITHOUT PROPER PROTECTION INCLUDING SELF-CONTAINED BREATHING APPARATUS AND FULL PROTECTIVE EQUIPMENT. FIGHT FIRE FROM A SAFE DISTANCE AND A PROTECTED LOCATION DUE TO THE



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5. FIRE FIGHTING MEASURES (Cont.)

POTENTIAL OF HAZARDOUS VAPORS AND DECOMPOSITION PRODUCTS.

FLAMMABLE COMPONENT(S) OF THIS MATERIAL MAY BE LIGHTER THAN WATER AND BURN WHILE FLOATING ON THE SURFACE.

HAZARDOUS COMBUSTION PRODUCTS: CARBON MONOXIDE, CARBON DIOXIDE

6. ACCIDENTAL RELEASE MEASURES

PRECAUTIONS AND EQUIPMENT: EXPOSURE TO THE SPILLED MATERIAL MAY BE IRRITATING OR HARMFUL. FOLLOW PERSONAL PROTECTIVE EQUIPMENT RECOMMENDATIONS FOUND IN SECTION VIII OF THIS MSDS.

METHODS FOR CLEAN-UP: 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.

7. HANDLING AND STORAGE

HANDLING MEASURES: MILDLY IRRITATING MATERIAL. AVOID UNNECESSARY EXPOSURE. USE SPARK-PROOF TOOLS AND EXPLOSION-PROOF EQUIPMENT

STORAGE MEASURES: STORE IN A COOL DRY VENTILATED LOCATION. ISOLATE FROM INCOMPATIBLE MATERIALS AND CONDITIONS. KEEP CONTAINER(S) CLOSED.
KEEP AWAY FROM SOURCES OF IGNITION

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

ENGINEERING MEASURES: GENERAL ROOM VENTILATION MIGHT BE REQUIRED TO MAINTAIN OPERATOR COMFORT UNDER NORMAL CONDITIONS OF USE.

RESPIRATORY PROTECTION: NO RESPIRATORY PROTECTION REQUIRED UNDER NORMAL CONDITIONS OF USE. PROVIDE GENERAL ROOM EXHAUST VENTILATION IF SYMPTOMS OF OVEREXPOSURE OCCUR AS EXPLAINED IN SECTION III. A RESPIRATOR MAY BE REQUIRED.

EYE PROTECTION: WEAR CHEMICALLY RESISTANT SAFETY GLASSES WITH SIDE SHIELDS WHEN HANDLING THIS PRODUCT. WEAR ADDITIONAL



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8. EXPOSURE CONTROLS AND PERSONAL PROTECTION (Cont.)

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 PROTECTION: WEAR PROTECTIVE GLOVES. 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

GLOVES: NEOPRENE; NITRILE

CONTROL PARAMETERS: CHEMICAL NAME	-----ACGIH EXPOSURE LIMITS-----		
	TLV-TWA	STEL	CEILING
ISOPROPRANOL	(400) ppm TWA; (983) mg/m3 TWA	(500) ppm STEL; (1230) mg/ m3 STEL	

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: CLEAR, COLORLESS TO PALE YELLOW LIQUID

ODOR: MODERATE ALCOHOL

pH: 3.0

VAPOR DENSITY: 2.1 (air= 1)

SPECIFIC GRAVITY: 0.790

SOLUBILITY IN WATER: COMPLETE; 100%

VAPOR PRESSURE, mm Hg at 20C: 31

MELTING POINT or RANGE (C): -82

BOILING POINT (C): 90

VAPORATION RATE: 1(butyl acetate= 1)

10. STABILITY AND REACTIVITY

INCOMPATIBLE MATERIALS: STRONG OXIDIZING AGENTS
ELEVATED TEMPERATURES

11. TOXICOLOGICAL INFORMATION

COMPONENT TOXICOLOGY DATA (NIOSH)

CHEMICAL NAME	LD50/LC50
ISOPROPYL ALCOHOL	Inhalation LC50 Rat : 16000 ppm/8H; Oral LD50 Rat : 5045 mg/kg; Oral LD50



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11. TOXICOLOGICAL INFORMATION (Cont.)

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.

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: ISOPROPANOL SOLUTION, 3, UN1219, PG II. LABEL
REQUIRED: FLAMMABLE LIQUID

15. REGULATORY INFORMATION

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

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.