

# Syn<sup>thetic</sup>EX<sup>othermic</sup>s

## SF351

*SODIUM FREE - CHLORINE FREE  
DEGASSING AGENT*

**SF351, the "HEX TERMINATOR," is an employee and facility friendly degassing agent. It was designed to remove unwanted gasses from molten aluminum alloys without the use of hexachloroethane. It achieves the same results as hex-based degassing tablets or agents without the NTP, IARC, OSHA, or EPA carcinogenicity warnings.**

### **Product Appearance**

Like all Synex fluxes, **SF351** is snow white in color and has the consistency of powdered sugar. All materials in Synex **SF351** are of the highest quality available. The high quality materials are custom blended to keep the product granularity very tight, which prevents them from becoming unblended during shipment.

### **Product Purpose**

**SF351** is highly effective at the removal of hydrogen gas porosity. It also removes oxide buildup from molten aluminum castings. **SF351** takes less time to apply than other gas treatments, such as SF<sub>6</sub>, argon, or nitrogen.

### **Product Usage**

**SF351** is most effective when it is wrapped in aluminum foil and plunged into the molten bath of metal. The ratio of flux to metal is important, and the recommended amount is about ½ to 1 oz. for every 100 lbs. of metal. Once plunged, the product will become very active and remove undesirable gases and oxides within a few minutes. Complete directions for effective use are provided with the product. For product or additional information call:

**Synthetic Exothermic, Inc.**  
**One Madison St.**  
**Newnan, Georgia 30263**

**Tel. - (770)253-7652**  
**Fax - (866)894-4254**  
**[www.synex-flux.com/](http://www.synex-flux.com/)**

## **High Tech Fluxes for Today's Metals**

Synthetic Exothermic, Inc. fluxes are of the highest quality and conform with all Synex specifications. Purchaser must read and adhere to all safety handling warnings. Due to the fact that Synex has no control of the purchaser's usage, Synex neither makes nor implies any warranties as to the specific results the purchaser may achieve.

date prepared 4/17/2008

PRODUCT NAME

# SF351 ALUMINUM FLUX

## SECTION I - PRODUCT IDENTITY

Manufacturer's name: Synex, Inc.

EMERGENCY TELEPHONE: 770-253-7652, FAX 866-894-4254

address: **Synthetic Exothermics**, Inc. ; One Madison Street, Newnan, Georgia 30263

Chemical name: aluminum flux trade name and synonyms: **sf-351**

## PRODUCT IDENTIFICATION

Chemical Name: Inorganic Salts

Chemical Family: Chlorides, Carbonates, Fluorides

Formula: Mixture

NFPA/HMIS: Health -2, Fire -0, Reactivity-0, Specific hazard

## SECTION II HAZARDOUS INGREDIENTS/ IDENTITY INFORMATION

Hazardous Components	other limits		
Specific Chemical Identity: Common Name(s)	OSHA PEL	ACGIH TLV	recommended
Fluorides potassium aluminum fluoride (CAS NO. 60304-31-1, less than 10%)	2.5mg/m3	2.5mg/m3	N/A
Ammonium fluoroborate (cas No. 13826-83-0)	2.5mg/m3	2.5mg/m3	N/A
Potassium Tetra fluoroborate (cas no. 14075-53-7)	2.5mg/m3	2.5mg/m3	N/A
Nuisance Dust Respirable	5mg/m3	5mg/m3	N/A
Total Dust	15mg/m3	10mg/m3	N/A

## SECTION III - PHYSICAL PROPERTIES

molecular weight:nd specific gravity(water=1):nd  
melting point (deg. F):1150-1250 boiling point (deg. C):na  
water solubility (wt.%) 8.5gr/LT volatiles (wt.%)nd  
vapor pressure (mmhg):na vapor density (air =1):na  
evaporation rate: nd  
appearance and odor: white crystalline powder.

## SECTION IV- FIRE AND EXPLOSION HAZARD DATA

Flash point (method used): nd flammable limits:nd  
extinguishing media: this product is not considered flammable, nor will it support combustion  
special fire fighting procedures: wear respirator for fluorides  
unusual fire and explosion hazards: fumes of f<sub>2</sub> and na<sub>2</sub> may be given off

## SECTION V- REACTIVITY DATA

stability: unstable stable X factors promoting instability:  
hazardous polymerization: will not occur  
incompatibility: acid, acidferous vapors  
avoid contact with:acids or high temperatures except under controlled  
conditions. Avoid dampness. Keep container closed  
hazardous decomposition products:fumes of F, Cl, and NaO<sub>2</sub> may be given off  
when heated to decomposition.

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na= not applicable nd= not determined unk=unknown

**SECTION VI- HEALTH HAZARD INFORMATION**

Routes of Entry Inhalation? yes Skin? yes Ingestion? yes

Health Hazards (acute and chronic):

Prolonged exposure to skin may lead to irritation. Prolonged inhalation may cause mucous membrane and respiratory system irritation. Harmful or fatal if ingested.

Carcinogenicity: not known to be a carcinogenic

NTP? No IARC monographs? No OSHA Regulated? No

Medical conditions generally aggravated by exposure. - None Known

**Emergency and First Aid Procedures-**

Skin Contact- Flush liberally with flowing water for at least 15 minutes.

Eye Contact- Flush liberally with flowing water or physiological NaCl solution. When Flushing eyes, Lids should be kept open.

Inhalation. Remove to fresh air. In case of breathing difficulties, give oxygen.

**In any of the above situations, call a physician.**

**SECTION VII - ENVIRONMENTAL PROTECTION PROCEDURES**

release or spill response: use clean up method which minimizes airborne dust and avoid contamination to outplant streams.

waste disposal method: properly label waste container.

**SECTION VIII- SPECIAL PROTECTION INFORMATION**

hands (glove material to minimize contact): avoid skin contact.

eyes: avoid eye contact. Use goggles.

respirator type: use NIOSH approved respirator when tlV is exceeded.

ventilation requirements: local exhaust required.

other: safety shower and/or eye wash should be available

**SECTION IX - SPECIAL PRECAUTIONS**

special precautions in handling and storing: wash after handling

**store in dry area.**

shipping regulations: none labels required:nd

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