

PRAXAIR SURFACE TECHNOLOGIES INC -- ALO-101 (PRODUCT CODE 061001-04) --  
3439-01-425-8388

===== Product Identification =====

Product ID:ALO-101 (PRODUCT CODE 061001-04)  
MSDS Date:06/07/1994  
FSC:3439  
NIIN:01-425-8388  
Status Code:A  
MSDS Number: CJTJB  
=== Responsible Party ===  
Company Name:PRAXAIR SURFACE TECHNOLOGIES INC  
Address:1555 MAIN STREET  
City:INDIANAPOLIS  
State:IN  
ZIP:46224-3283  
Country:US

Info Phone Num:317-240-2650  
Emergency Phone Num:317-240-2209  
Preparer's Name:MICHELLE ALEXANDER  
Chemtrec Ind/Phone:(800)424-9300

CAGE:0FGH2  
=== Contractor Identification ===  
Company Name:PRAXAIR SURFACE TECHNOLOGIES INC  
Address:1555 MAIN STREET  
Box:City:INDIANAPOLIS  
State:IN  
ZIP:46224-3283  
Country:US  
Phone:317-240-2650  
CAGE:0FGH2  
Company Name:STARGHILL TECHNOLOGIES CORP  
Address:3850 OAKMAN BLVD  
Box:City:DETROIT  
State:MI  
ZIP:48204-1119  
Country:US  
Phone:313-933-4141  
Contract Num:SP0490-95-D-4037  
CA

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Composition/Information on Ingredients  
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Ingred Name:ALUMINUM OXIDE  
CAS:1344-28-1  
RTECS #:BD1200000  
> Wt:75.  
OSHA PEL:15 MG/M3  
ACGIH TLV:10 MG/M3

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Hazards Identification  
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Routes of Entry: Inhalation:YES Skin:YES Ingestion:YES  
Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO  
Health Hazards Acute and Chronic:SKIN CONTACT: MAY CAUSE IRRITATION.  
EYE CONTACT: MAY CAUSE IRRITATION. SKIN ABSORPTION MAY SHO

W

EVIDENCE OF IRRITATION. INHALATION: MAY CAUSE INCREASE IN BLOOD  
WHITE CELL COUNTS. EFFECTS OF PEPEATED O VEREXPOSURE: MAY CAUSE  
SKIN SENSITIZATION IN SUSCEPTABLE INDIVIDUALS. MAY CAUSE DERMATITIS  
PAPULES.

Explanation of Carcinogenicity:NONE CURRENTLY KNOWN

Effects of Overexposure:EYE CONTACT: MAY EXPERIENCE REDNESS OF THE  
CONJUNCTIVA. SWALLOWING: MAY CAUSE NAUSEA. INHALATION: MAY CAUSE  
FEVER AND/OR COUGH.

Medical Cond Aggravated by Exposure:BREATHING OF DUST MAY AGGRAVA  
TE

ASTHMA AND INFLAMMATORY OR FIBROTIC PULMONARY DISEASE. MAY ALSO  
AGGRAVATE AN EXISTING DERMATITIS.

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First Aid Measures  
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First Aid:SKIN: WASH THOROUGHLY WITH SOAP AND WATER. INHALATION:  
REMOVE TO FRESH AIR. GIVE ARTIFICIAL RESPIRATION IF NOT BREATHING.  
OXYGEN MAY BE GIVEN. CALL A PHYSICIAN. EYES:FLUSH THOROUGHLY WITH  
WATER. SW ALLOWING: NO HARMFUL EFFECTS EXPECTED. NOTE TO PHYSICIAN:  
THERE IS NO SPECIFIC ANTIDOTE. TREA  
TMENT OF OVEREXPOSURE SHOULD BE  
DIRECTED AT THE CONTROL OF SYMPTOMS AND THE CLINICAL CONDITION.

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Fire Fighting Measures  
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Flash Point:NONE

Lower Limits:NONE

Upper Limits:NONE

Extinguishing Media:USE SPECIAL DRY POWDER METAL EXTINGUISHING MATERIAL  
TO EXTINGUISH METAL FIRES. USE APPROPRIATE EXTINGUISHER TO  
EXTINGUISH COMBUSTABLE MATERIALS THAT MAY BE IGNITED BY THERMAL  
FLAME.

Fire Fighting Procedures:CONSULT AND COMPLY WITH ANSI Z49.1 SA

FETY IN

WELDING AND CUTTING, NFPA51B STANDARD FOR FIRE PREVENTION IN USE OF CUTTING AND WELDING PROCESSES. NFPA51B OXYGEN-FUEL GAS SYSTEMS FOR WELDING AND CUTTING, AND NFPA58 STANDARD FOR THE STORAGE AND HANDLING OF LIQUIFIED PETROLEUM GASES.

Unusual Fire/Explosion Hazard: AIRBORNE DUST PARTICLES, ESPECIALLY METAL DUST, AND ACCUMULATION OF SUCH SHOULD BE TREATED AS EXPLOSIVES. TO MINIMIZE DANGER FROM DUST EXPLOSIONS, ADEQUATE VENTILATION SHOULD BE PROVIDED TO SPRAY BO

OT H IN ACCORDANCE WITH AMERICAN WELDING

SOCIETY PUBLICATION AWS C2.1-73, AND ACGIH PUBLICATION "INDUSTRIAL VENTILATION".

===== Accidental Release Measures =====

Spill Release Procedures: WEAR PROTECTIVE EQUIPMENT TO PROTECT AGAINST HAZARDS AND DISPOSE OF PER WASTE DISPOSAL METHOD.

===== Handling and Storage =====

Other Precautions: CAUTION: WHEN THERMAL SPRAYING - ELECTRICITY CAN CAUSE FATAL SHOCK! DO NOT TOUCH LIVE ELECTRICAL PARTS! ARC RAYS CAN BURN EYES AND SKIN! WEAR RECOMMENDED EYE AND BODY PROTECTION. FUMES, GAS, & DUST CAN HARM YOUR HEALTH. PROVIDE ENOUGH VENTILATION AND WEAR RESPIRATORS.

===== Exposure Controls/Personal Protection =====

Respiratory Protection: DEPENDS UPON SPECIFIC USE, CONDITION, AND LOCATION. IF THERE IS DUSTINESS, WEAR RESPIRATOR SELECTED PER OSHA 1910.134, AND OSHA 29 CFR 1910.252 AND ANSI Z49.1

Ventilation: LOCAL DUST PICK UP AND VENTILATION RECOMMENDED.

Protective Gloves: NOT REQUIRED.

Eye Protection: WHEN DUSTY USE GOGGLES PER OSHA 1910.13.

Other Protective Equipment: SEE ANSI Z49.1, ANSI Z87.1, ANSI Z88.2 FOR HELMETS, FACE SHIELDS AND GOGGLES.

Supplemental Safety and Health

CAUTION: WHEN THERMAL SPRAYING-ELECTRICITY CAN CAUSE FATAL SHOCK! DO NOT TOUCH LIVE ELECTRICAL PARTS! ARC RAYS CAN BURN EYES AND SKIN! WEAR RECOMMENDED EYE AND BODY PROTECTION. FUMES, GAS, AND DUST CAN HARM YOUR HEALTH. PROVIDE ENOUGH VENTIL

ATION AND WEAR RESPIRATORS  
(OTHER INFO).

===== Physical/Chemical Properties =====

HCC:N1  
Boiling Pt:B.P. Text:NONE  
Vapor Density:N/VOLATILE  
Appearance and Odor:FINE WHITE POWDER

===== Stability and Reactivity Data =====

Stability Indicator/Materials to Avoid:YES  
NONE KNOWN  
Stability Condition to Avoid:NONE KNOWN  
Hazardous Decomposition Products:WHEN THERMAL SPRAYING, DECOMPOSITION  
PRODUCTS WILL VARY WITH OPERATING CONDITIONS. DEC  
OMPOSITION  
PRODUCTS OF NORMAL OPERATION FROM THIS THERMAL SPRAY POWDER-  
OXIDES, SUB-OXIDES, ETC.

===== Disposal Considerations =====

Waste Disposal Methods:DISPOSE OF WASTE PER LOCAL, STATE, AND FEDERAL  
REGULATIONS.

===== MSDS Transport Information =====

Transport Information:PROPER SHIPPING NAME: METAL ALLOY POWDER NOI ITEM  
136500 SUB 1.

===== Regulatory Information =====

SARA T  
Title III Information:NONE  
Federal Regulatory Information:NONE  
State Regulatory Information:NONE

===== Other Information =====

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