

JONATHAN BORAK & COMPANY, INC.

Specialists in Occupational & Environmental Health

PLAINTIFF'S
EXHIBIT
AL-1321

Kathryn Rezens, MS, RN, CS
Corporate Health Services
Aluminum Company of America
Room 625B, Alcoa Building
Pittsburgh, Pennsylvania 15219

June 29, 1995

Dear Kathryn:

I am faxing to you comments on Coated Fin Stock, Sheet and Foil; Painted or Pretreated Aluminum Extrusions; and Used Foundry Sand. Essentially these are the issues we discussed on the phone.

I hope this is helpful. Feel free to call if questions arise. Have a great weekend.

Sincerely,



Mark Russi, MD, MPH

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HQI003 0078

COATED FIN STOCK, SHEET AND FOIL

- ✓ •Generally, this MSDS looks good. There are three places where I would recommend replacing the word "may" with the word "can": (1) the last sentence of the EMERGENCY OVERVIEW, (2) the third line on page 2, and (3) the sentence on hydrogen chloride. All of these health effects are established rather than merely postulated outcomes of sufficiently high exposures.
- ✓ •Under Hydrogen Chloride, I would recommend adding the sentence "Severe overexposures can cause pulmonary edema (fluid in the lungs)."

PAINTED OR PRETREATED ALUMINUM EXTRUSIONS

- ✓ •Under manganese oxide fumes, consider changing wording to "...can cause nervous system disorders, (manganism) and may cause pneumonitis and fibrosis of lung tissue." (Manganism is an established human health effect of manganese exposure.)
- ✓ •Under nitrogen dioxide, I would recommend you say that very high concentrations can cause pulmonary edema (fluid in the lungs) and death, since these are established health outcomes at high doses.
- ✓ •The two paragraphs regarding welding and formaldehyde look fine. I assume you have decided there is insufficient oil exposure to merit its discussion. (The previous MSDS addressed health effects of an oil coating on some aluminum products, and I had had some suggestions regarding that section, which you may recall.)
- ✓ •Under hydrogen chloride, I would recommend changing "may" to "can", and adding the sentence "Severe overexposures can cause pulmonary edema (fluid in the lungs)."

USED FOUNDRY SAND

- ✓ •Under INHALATION, I would recommend changing the wording to "Overexposure to dust containing silica can cause scarring of the lungs (silicosis). Cancer hazard." (Essentially, the best lay definition of silicosis is scarring of the lungs".)
- ✓ •Under **Medical conditions aggravated by exposure to the product**, I would list only chronic lung disease. One could consider listing rheumatoid arthritis due to the unlikely hazard of Caplan's Syndrome, but I would not recommend it. I think that would only confuse people, perhaps leaving the impression that silica exposure somehow affects the joints. I would recommend deleting what is presently on the MSDS sheet in this section.
- ✓ •Under FIRST AID MEASURES, I think you should qualify the triage to a physician i.e. "Consult a physician if irritation persists."

Under INHALATION, checking for a pulse is left out for some reason. I would recommend the following:

- ✓ "If unconscious or severely injured, assure that the airway is clear, that the person is breathing, and that there is a pulse. Perform CPR for persons without pulse or respirations. Consult a physician."

TOTAL P.02

HQ1003 0079

MATERIAL SAFETY DATA SHEET

Original/Supersedes: October 21, 1981

Revised: July 5, 1995No. 40
Page 3 of 4Product Name: ASBESTOS

ENGINEERING CONTROLS: Use with adequate ventilation to meet exposure limits listed in Section 2.
Plant air sampling and analysis are required to insure conformance.

EYE PROTECTION: Safety glasses are recommended to avoid eye contact.

SKIN PROTECTION: Gloves are recommended to avoid skin contact. Disposable coveralls should be worn when working with asbestos.

INGESTION PROTECTION: Cleanse skin thoroughly with hand cleaners or soap and water after contact, and before eating, drinking, or smoking.

RESPIRATORY PROTECTION: Select appropriate respiratory protection (dust mask, self-contained breathing apparatus, supplied-air respirator) based on the actual or potential concentration present. NIOSH approved respiratory protection is required for conditions in which the 8 hour TWA or ceiling concentrations is exceeded.

9. PHYSICAL AND CHEMICAL PROPERTIES**DRAFT**

APPEARANCE: White or greenish (chrysotile), gray-green (amosite)
gray-brown (amphibole), or blue (crocidolite) - fibrous solids

BOILING POINT: Not applicable

FREEZE-MELT POINT: Not determined

VAPOR PRESSURE (mm): Not applicable

VAPOR DENSITY (air = 1): Not applicable

SOLUBILITY IN WATER: Insoluble; breaks down slowly in hot water

SPECIFIC GRAVITY: Not determined

DENSITY: Not determined

pH: Not applicable

ODOR: None

ODOR THRESHOLD (ppm) Not applicable

COEFFICIENT OF WATER/OIL DISTRIBUTION: Not applicable

10. STABILITY AND REACTIVITY

CHEMICAL STABILITY (CONDITIONS TO AVOID): Stable and relatively inert. In some situations, asbestos can maintain its integrity at temperatures up to 1700°C (3092°F). Chrysotile is resistant to degradation by alkaline attack. Heat resistance of amosite is superior to chrysotile. Crocidolite is more resistant to acid attack than chrysotile and amosite.

INCOMPATIBILITY: None.

HAZARDOUS DECOMPOSITION PRODUCTS: None

HAZARDOUS POLYMERIZATION: Will not occur

11. TOXICOLOGICAL INFORMATION

Carcinogen - See 29 CFR 1910.1001

12. ECOLOGICAL INFORMATION

ECOTOXICOLOGICAL/CHEMICAL FATE INFORMATION:

13. DISPOSAL CONSIDERATION

Scrap asbestos should be disposed in sealed plastic bags in steel drums. Drums must be marked with special asbestos label and shipped to approved disposal site.

RCRA Hazardous Waste No.: Not federally regulated.

HQI003 0167

MATERIAL SAFETY DATA SHEET

Original/Supersedes: October 21, 1981

Revised: July 5, 1995Product Name: ASBESTOSNo. 40
Page 4 of 4**14. TRANSPORT INFORMATION**

U.S.A. DOT: Not Regulated – Enter the proper freight classification, "MSDS Number," and "Product Name" on the shipping paperwork.

Canadian TDG Hazard Class & PIN: Not regulated.

15. REGULATORY INFORMATION**DRAFT****U.S. Federal Regulations**

TSCA STATUS: All components of this product are listed on the TSCA inventory.

CERCLA HAZARDOUS SUBSTANCES: Asbestos

SARA TITLE III:

Section 311/312 Hazardous Categories: Immediate (acute), delayed (chronic)

Section 302 Extremely Hazardous Substances: None

Section 313 Toxic Chemicals: Asbestos

OSHA Designation: (29 CFR 1910.1000, Table Z-1-A, Z-3)

16. OTHER INFORMATION

MSDS STATUS: New format

PREPARED BY: Hazardous Materials Control Committee

- U.S. Dept. of Health and Human Services, NIOSH: Registry of Toxic Effects of Chemical Substances, 1985-86 Edition
- Sax, N. Irving: Dangerous Properties of Industrial Materials, Van Nostrand Reinhold Co., Inc., 1984

Information herein is given in good faith as authoritative and valid; however, no warranty, express or implied, can be made.

LEGEND:

ACGIH	American Conference of Governmental Industrial Hygienists
CAS	Chemical Abstract Services
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
DOT	Department of Transportation
DSL	Domestic Substances List (Canada)
ECOIN	European Core Inventory
EPA	Environmental Protection Agency
IARC	International Agency for Research on Cancer
LC	Lethal Concentration
LD	Lethal Dose
NFPA	National Fire Protection Association
NIOSH	National Institute for Occupational Safety and Health
NTP	National Toxicology Program
OSHA	Occupational Safety and Health Administration
PEL	Permissible Exposure Limit
PIN	Product Identification Number
RCRA	Resource Conservation and Recovery Act
SARA	Superfund Amendments and Reauthorization Act
STEL	Short Term Exposure Limit
TCLP	Toxic Chemicals Leachate Program
TDG	Transportation of Dangerous Goods
TLV	Threshold Limit Value
TSCA	Toxic Substances Control Act
TWA	Time Weighted Average

atm	atmosphere
cm	centimeter
g	gram
in	inch
kg	kilogram
lb	pound
m	meter
mg	milligram
mm	millimeter
n.o.s.	not otherwise specified
ppb	parts per billion
ppm	parts per million
psia	pounds per square inch absolute
µg	microgram