



Material Safety Data Sheet

Product Name: FILTER PRESS CAKE

ID: 824

*** Section 1 - Chemical Product and Company Identification ***

Chemical Formula: Mixture

Product Use: Hazardous Waste

Other Designations: Chrome Hydroxide Sludge, Wastewater Treatment Sludge, Chrome Sludge, F019

Alcoa Inc.
201 Isabella Street
Pittsburgh, PA 15212-5858

Phone: Health and Safety: 1-412-553-4649

Manufacturer/Supplier

Alcoa Inc.
P.O. Box 387
Hernando, MS 38632

Phone: 1-601-429-5261

Alcoa Inc.
2500 Alumax Road
Yankton, SD 57078-9399

Phone: 1-605-665-6063

Emergency Information: USA: Chemtrec: 1-800-424-9300 or 1-703-527-3887

Alcoa: 1-412-553-4001

Website: For a current MSDS, refer to Alcoa websites: www.alcoa.com or Internally at my.alcoa.com EHS Community

*** Section 2 - Composition / Information on Ingredients ***

Complete composition is provided below and may include some components classified as non-hazardous.

CAS #	Component	Percent
1305-62-0	Calcium hydroxide	50
21645-51-2	Aluminum hydroxide	12
7789-75-5	Calcium fluoride	12
Not Available	Fluoride salts	9
1310-73-2	Sodium hydroxide	7
1308-14-1	Chromium (III) hydroxide	5
7732-18-5	Water	5

Component Related Regulatory Information

Some component information may be found under the following: Fluorides (16984-48-8), Fluorides and Hydrogen fluoride, Chromium (III) Compounds.

*** Section 3 - Hazards Identification ***

Emergency Overview

Solid, moist. Blue-green. Mild odor. Non-combustible. Dust can cause severe irritation of eyes and irritation of skin and upper respiratory tract.

Potential Health Effects

Eyes: Can cause severe irritation.

Skin: Can cause irritation.

Ingestion: Can cause irritation of the gastrointestinal tract and other health effects listed below.

Inhalation: Can cause irritation of upper respiratory tract and other health effects listed below.

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Health Effects of Ingredients

Fluorides Can cause irritation of eyes, mucous membranes, skin and respiratory tract. Chronic overexposures: Can cause fluoride deposition in bones and cartilage (fluorosis) as evidenced by x-ray changes. Can be accompanied by stiffness of the joints.

Chromium dust and mist Can cause irritation of eyes, skin and respiratory tract. **Chromium and trivalent chromium** IARC/NTP: Not classified by IARC.

Medical Conditions Aggravated By Exposure to the Product and/or Components

Asthma, chronic lung disease, and skin rashes.

*** Section 4 - First Aid Measures ***

First Aid: Eyes

Flush eyes with plenty of water or saline for at least 15 minutes. Consult a physician.

First Aid: Skin

Wash skin with soap and water for at least 15 minutes. Consult a physician if irritation persists.

First Aid: Ingestion

If swallowed, dilute by drinking large amounts of water. Recommend quantities up to 30 mL (~1 oz.) in children and 250 mL (~9 oz.) in adults. *Never give anything by mouth to a convulsing or unconscious person.* Do **not** induce vomiting. Consult a physician immediately.

First Aid: Inhalation

Remove to fresh air. If unconscious or severely injured, check for clear airway, breathing and presence of pulse. Perform CPR if there is no pulse or respiration. Consult a physician.

*** Section 5 - Fire Fighting Measures ***

Flammable/Combustible Properties

Non-combustible.

Extinguishing Media

Use fire fighting methods and materials that are appropriate for surrounding fire.

Fire Fighting Equipment/Instructions

Fire fighters should wear NIOSH approved, positive pressure, self-contained breathing apparatus and full protective clothing when appropriate.

*** Section 6 - Accidental Release Measures ***

Small/Large Spill: Absorb with absorbent material. Containerize for disposal.

*** Section 7 - Handling and Storage ***

Handling/Storage: Avoid eye and skin contact. Avoid generating dust.

*** Section 8 - Exposure Controls / Personal Protection ***

Engineering Controls

Use with adequate ventilation to meet the limits listed in Section 8, Exposure Guidelines.

Personal Protective Equipment

Respiratory Protection

Use NIOSH-approved respiratory protection as specified by an Industrial Hygienist or other qualified professional if concentrations exceed the limits listed in Section 8, Exposure Guidelines. Suggested respiratory protection: N95

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Eye Protection

Wear safety glasses/goggles to avoid eye contact.

Skin Protection

Wear appropriate gloves to avoid direct skin contact.

Exposure Guidelines

A: General Product Information

No information available for product.

B: Component Exposure Limits

Calcium hydroxide (1305-62-0)

ACGIH 5 mg/m³ TWA

OSHA 15 mg/m³ TWA (total dust); 5 mg/m³ TWA (respirable fraction)

Calcium fluoride (7789-75-5)

ACGIH 2.5 mg/m³ TWA (as F) (related to Fluorides)

OSHA 2.5 mg/m³ TWA (as F) (related to Fluoride)

Sodium hydroxide (1310-73-2)

ACGIH 2 mg/m³ Ceiling

OSHA 2 mg/m³ TWA

Chromium (III) hydroxide (1308-14-1)

ACGIH 0.5 mg/m³ TWA (as Cr) (related to Chromium (III) compounds)

OSHA 0.5 mg/m³ TWA (as Cr) (related to Chromium (III) Compounds)

*** Section 9 - Physical & Chemical Properties ***

Physical State:	Solid, moist	Appearance:	Blue-green.
Boiling Point:	Not applicable	Freezing Point:	Not applicable
Melting Point:	Not applicable	Vapor Pressure:	Not applicable
Vapor Density:	Not applicable	Solubility in Water:	Not determined
Specific Gravity:	See Density	Density:	81 lbs./ft ³ (1.3 g/cm ³)
pH Level:	7-10 (saturated solution)	Odor:	Mild
Odor Threshold:	Not determined	Octanol-Water Coefficient:	Not determined

*** Section 10 - Chemical Stability & Reactivity Information ***

Stability

Stable under normal conditions of use, storage, and transportation.

Hazardous Decomposition

No known hazardous decomposition products.

Hazardous Polymerization

Will not occur.

*** Section 11 - Toxicological Information ***

Health Effects of Ingredients

A: General Product Information

No information available for product.

B: Component Analysis - LD50/LC50

Calcium hydroxide (1305-62-0)

Oral LD50 Rat: 7340 mg/kg

Aluminum hydroxide (21645-51-2)

Oral LD50 Rat: >5000 mg/kg

Calcium fluoride (7789-75-5)

Oral LD50 Rat: 4250 mg/kg

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Sodium hydroxide (1310-73-2)

Dermal LD50 Rabbit: 1350 mg/kg

Chromium (III) hydroxide (1308-14-1)

Oral LD50 Rat: >5000 mg/kg

Carcinogenicity

A: General Product Information: No information available for product.

B: Component Carcinogenicity

Calcium fluoride (7789-75-5)

ACGIH A4 - Not Classifiable as a Human Carcinogen (related to Fluorides)

Chromium (III) hydroxide (1308-14-1)

ACGIH A4 - Not Classifiable as a Human Carcinogen (related to Chromium (III) compounds)

IARC Monograph 49, 1990 (Listed under Chromium and Chromium compounds) (related to Chromium (III) Compounds)

*** Section 12 - Ecological Information ***

Ecotoxicity

A: General Product Information

No information available for product.

B: Component Analysis - Ecotoxicity - Aquatic Toxicity

No ecotoxicity data was found for this product's components.

Environmental Fate

No information available for product.

*** Section 13 - Disposal Considerations ***

Disposal Instructions

Material may be disposed of at a hazardous waste management facility, in accordance with applicable regulations.

US EPA Waste Number & Descriptions

A: General Product Information

RCRA Hazardous Waste No.: F019

B: Component Waste Numbers

RCRA waste codes other than described under Section A may apply depending on use of product. Refer to 40 CFR 261 or state equivalent in the U.S.

*** Section 14 - Transportation Information ***

Special Transportation

	PSN #1	PSN #2	PSN #3	PSN #4
Notes:		(1)(2)		
Proper Shipping Name:	Hazardous waste solid, n.o.s.	Not regulated		
Hazard Class:	9	-		
UN NA Number:	NA 3077	-		
Packing Group:	III	-		
RQ:	RQ	-		
Other - Tech Name:	(F019)	-		
Other - Marine Pollutant:	-	-		

Notes:

- (1) Not regulated when containing less than 10 lbs. per package.
- (2) When not regulated, include the "MSDS Number" and "Product Name" on the shipping paperwork.

Canadian TDG Hazard Class & PIN: Not regulated

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***** Section 15 - Regulatory Information *****

US Federal Regulations

A: General Product Information

In reference to Title VI of the Clean Air Act of 1990, this material does not contain nor was it manufactured using ozone-depleting chemicals.

B: Component Analysis

This material contains one or more of the following chemicals required to be identified under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65) and/or CERCLA (40 CFR 302.4).

Sodium hydroxide (1310-73-2)

CERCLA: 1000 lb final RQ; 454 kg final RQ

Chromium (III) hydroxide (1308-14-1)

SARA 313: 0.1 % de minimis concentration (except for chromite ore mined in the Transvaal Region of South Africa and the unreacted ore component of the chromite ore processing residue (COPR). Chemical Category N090) (related to Chromium (III) Compounds)

SARA 311/312 Physical and Health Hazard Categories:

Immediate (acute) Health Hazard: Yes
Delayed (chronic) Health Hazard: Yes
Fire Hazard: No
Sudden Release of Pressure: No
Reactive: No

State Regulations

A: General Product Information: No information available for product.

B: Component Analysis - State

The following components appear on one or more of the following state hazardous substances lists:

Component	CAS #	CA	FL	MA	MN	NJ	PA
Calcium hydroxide	1305-62-0	Yes	No	Yes	Yes	Yes	Yes
Calcium fluoride (¹related to Fluoride) (²related to Fluorides)	7789-75-5	Yes¹	No	No	Yes²	Yes	Yes²
Sodium hydroxide	1310-73-2	Yes	No	Yes	Yes	Yes	Yes
Chromium (III) hydroxide (¹related to Chromium (III))	1308-14-1	No	No	No	Yes¹	No	No

Other Regulations

A: General Product Information: Material meets the criteria for inclusion in WHMIS Hazard Class D2B.

B: Component Analysis - WHMIS IDL

The following components are identified under the Canadian Hazardous Products Act Ingredient Disclosure List:

Component	CAS #	Minimum Concentration
Calcium hydroxide	1305-62-0	1 % (English Item 302, French Item 991)
Sodium hydroxide	1310-73-2	1 % (English Item 1442, French Item 998)
Chromium (III) hydroxide	1308-14-1	1 % (English Item 397, French Item 559) (related to Chromium (III) compounds)

C: Component Analysis - Inventory

Component	CAS #	TSCA	DSL	EINECS	AUST.	MITI
Calcium hydroxide	1305-62-0	Yes	Yes	Yes	Yes	Yes
Aluminum hydroxide	21645-51-2	Yes	Yes	Yes	Yes	Yes
Calcium fluoride	7789-75-5	Yes	Yes	Yes	Yes	Yes
Sodium hydroxide	1310-73-2	Yes	Yes	Yes	Yes	Yes
Chromium (III) hydroxide	1308-14-1	Yes	Yes	Yes	Yes	Yes
Water	7732-18-5	Yes	Yes	Yes	Yes	No

All additional components not identified above are listed on the TSCA Inventory.

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*** Section 16 - Other Information ***

MSDS History

Original: December 9, 1992
Supersedes: July 9, 2002
Revised: August 24, 2005

MSDS Status

08/24/2005: Reviewed on a periodic basis in accordance with Alcoa policy.
Changes made in sections 1, 3, 4, 8, 11 & 15.
07/09/2002: New format.

Prepared By

Hazardous Materials Control Committee
Preparer: Jon N. Peace, 412-553-2293

MSDS System Number: 145360

Other Information

- * Guide to Occupational Exposure Values-2005, Compiled by the American Conference of Governmental Industrial Hygienists (ACGIH).
- * Documentation of the Threshold Limit Values and Biological Exposure Indices, Sixth Edition, 1991, Compiled by the American Conference of Governmental Industrial Hygienists, Inc. (ACGIH).
- * NIOSH Pocket Guide to Chemical Hazards, U.S. Department of Health and Human Services, June 1994.
- * Patty's Industrial Hygiene and Toxicology: Volume II: Toxicology, 4th ed., 1994, Patty, F. A.; edited by Clayton, G. D. and Clayton, F. E.: New York: John Wiley & Sons, Inc.
- * Integrated Index(R), MICROMEDEX, Inc., 2005

Key-Legend:

ACGIH	American Conference of Governmental Industrial Hygienists
AICS	Australian Inventory of Chemical Substances
CAS	Chemical Abstract Service
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
CPR	Cardio-pulmonary Resuscitation
DOT	Department of Transportation
DSL	Domestic Substances List (Canada)
EC	Effective Concentration
ED	Effective Dose
EINECS	European Inventory of Existing Commercial Chemical Substances
EPA	Environmental Protection Act
IARC	International Agency for Research on Cancer
LC ₅₀	Lethal concentration (50 percent kill)
LC _{Lo}	Lowest published lethal concentration
LD ₅₀	Lethal dose (50 percent kill)
LD _{Lo}	Lowest published lethal dose
LFL	Lower Flammable Limit
MITI	Ministry of International Trade & Industry
NFPA	National Fire Protection Association
NIOSH	National Institute for Occupational Safety and Health
NTP	National Toxicology Program
OEL	Occupational Exposure Limit
OSHA	Occupational Safety and Health Administration
PEL	Permissible Exposure Limit
PIN	Product Identification Number
PSN	Proper Shipping Name
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 Substance Control Act
TWA	Time Weighted Average
UFL	Upper Flammable Limit
WHMIS	Workplace Hazardous Materials Information System

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atm	atmosphere
cm	centimeter
g, gm	gram
in	inch
kg	kilogram
lb	pound
m	meter
mg	milligram
ml, ML	milliliter
mm	millimeter
mppcf	million particles per cubic foot
n.o.s.	not otherwise specified
ppb	parts per billion
ppm	parts per million
psia	pounds per square inch absolute
u	micron
ug	microgram

INFORMATION HEREIN IS GIVEN IN GOOD FAITH AS AUTHORITATIVE AND VALID; HOWEVER, NO WARRANTY, EXPRESS OR IMPLIED, CAN BE MADE.

This is the end of MSDS # 824

FILTER PRESS CAKE



WARNING

Hazards: Can cause severe irritation of eyes and irritation of skin and upper respiratory tract.

Chronic overexposures to fluoride dust can result in fluoride deposition in bones and cartilage (fluorosis) which may be accompanied by stiffness of joints

Chromium dust can cause irritation of eyes, skin and respiratory tract.

Precautions: Avoid contact with eyes and skin. Avoid generating dust. Use with adequate ventilation. Wear appropriate eye and skin protection to prevent contact. Use appropriate respiratory protection (N95), if exposures exceed the permissible limits.

First Aid: EYES: Flush eyes with plenty of water or saline for at least 15 minutes. Consult a physician. SKIN: Wash skin with soap and water for at least 15 minutes. Consult a physician if irritation persists. INGESTION: If swallowed, dilute by drinking large amounts of water. Recommended quantities up to 30 mL (~ 1oz.) in children and 250 mL (~9 oz.) in adults. *Never give anything by mouth to a convulsing or unconscious person.* Do NOT induce vomiting. Consult a physician immediately. INHALATION: Remove to fresh air. If unconscious or severely injured, check for clear airway, breathing and presence of pulse. Perform CPR if there is no pulse or respiration. Consult a physician.

Read Alcoa Material Safety Data Sheet No. 824 for more information about use and disposal.

Emergency Phone: (412) 553-4001.

INGREDIENTS:	CAS NUMBERS:	INGREDIENTS:	CAS NUMBERS:
Calcium hydroxide	(1305-62-0)	Sodium Hydroxide	(1310-73-2)
Aluminum hydroxide	(21645-51-2)	Chromium (III) Hydroxide	(1308-14-1)
Calcium Fluoride	(7789-75-5)	Water	(7732-18-5)
Fluoride Salts	(--)		

Alcoa Inc.

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8/05 824

