



Material Safety Data Sheet

Product Name: PETROLEUM WAX

ID: 1172

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

Chemical Formula: Mixture

Product Use: Investment castings

Other Designations: Backfill Wax WM 5098, Box Patching Wax WM 5098, Extrusion Bar Wax WM 5046, Injection Bar Wax WM 5068, Mineral Wax WM 5093, Patching Wax WM 5098, Stick Tite Wax WM 5085, Utility Patch Wax WM 5083, Utility Patch Wax WM 5095, WM 5068, WM 5082, WM 5083, WM 5084, WM 5085, WM 5090, WM 5093, WM 5095, WM 5098, WM 5102

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

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

Manufacturer/Supplier

Howmet Castings
Specialty Materials
1600 S. Warner Street
Whitehall, MI 49461-1897

Phone: 1-231-894-5686

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 - Hazards Identification ***

EMERGENCY OVERVIEW

Solid, wax-like. Various colors. Slight odor. Dust and fume from processing can cause irritation of eyes, skin and upper respiratory tract. Contact with molten material can cause thermal burns.

POTENTIAL HEALTH EFFECTS

The following statements summarize the health effects generally expected in cases of overexposures. User specific situations should be assessed by a qualified individual. Additional health information can be found in Section 11.

The health effects listed below are not likely to occur unless processing or combustion of this product generates dust or fumes.

Eyes Dust or fume from processing: Can cause irritation.

Skin Dust or fume from processing: Can cause irritation. Contact with molten material can cause thermal burns.

Inhalation Dust or fume from processing: Can cause irritation of upper respiratory tract.

Carcinogenicity and Reproductive Hazard

Does not present any cancer or reproductive hazards.

Medical Conditions Aggravated By Exposure to Product, Components or Compounds Formed During Processing

Dust or fume from processing: Asthma, chronic lung disease, and skin rashes.

*** Section 3 - Composition / Information on Ingredients ***

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

CAS #	Component	Percent
Proprietary	Petroleum waxes	20-100
Proprietary	Resin	0-80
Proprietary	Dye	<1

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

First Aid: Eyes

Dust or fume from processing: Flush eyes with plenty of water or saline for at least 15 minutes. Consult a physician.

First Aid: Skin

Dust or fume from processing: Wash skin with soap and water for at least 15 minutes. Consult a physician if irritation persists.

Molten material: If molten material gets on skin, cool rapidly with cold water. Get medical treatment for thermal burn.

First Aid: Inhalation

Dust or fume from processing: 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

While not considered "flammable" or "combustible" as defined by OSHA or DOT, the material will burn if ignited.

Extinguishing Media

Use dry chemical, water spray (fog), foam or carbon dioxide extinguishing agents. Manual fire fighting may be difficult due to the presence of thick smoke.

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

Recover spills for reuse. Recover using mechanical means. Do not allow material to enter sewers or streams.

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

Handling/Storage

Avoid eye and skin contact. Avoid generating dust. Keep material dry. Store in a cool, dry area.

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

Engineering Controls

If dust or fumes are generated through processing: Use with adequate ventilation.

Personal Protective Equipment

Respiratory Protection

If dust or fumes are generated through processing: Use NIOSH-approved respiratory protection as specified by an Industrial Hygienist or other qualified professional. Suggested respiratory protection: N95

Eye Protection

Wear safety glasses/goggles to avoid eye contact.

Skin Protection

The need for PPE (gloves) should be based upon a hazard assessment and recommendations from health / safety professionals.

Exposure Guidelines

A: General Product Information

No information available for product.

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B: Component Exposure Limits

Petroleum waxes (Proprietary)

ACGIH 2 mg/m³ TWA (fume)

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

Physical State:	Solid, wax-like	Appearance:	Various colors
Boiling Point:	>390°F (>199°C)	Melting Point:	100°F (38°C)
Vapor Pressure:	Not determined	Vapor Density:	Not determined
Solubility in Water:	Insoluble	Specific Gravity:	Not determined
Density:	Not determined	pH Level:	Not applicable
Odor:	Slight odor	Odor Threshold:	Not determined
Octanol-Water Coefficient:	Not determined	Flash Point	>350°F (>177°C)
Auto Ignition	~500°F (~260°C)		

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

Stability

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

Conditions to Avoid

Heat and strong oxidizers.

Hazardous Decomposition

Carbon monoxide, carbon dioxide, aldehydes and partially oxidized hydrocarbons

Hazardous Polymerization

Will not occur.

* * * Section 11 - Toxicological Information * * *

Acute Toxicity of Ingredients/Formed Compounds

A: General Product Information

No information available for product.

B: Component Analysis - LD50/LC50

Petroleum waxes (Proprietary)

Oral LD50 Rat: >3750 mg/kg; Dermal LD50 Rabbit: >3600 mg/kg

Resin (Proprietary)

Oral LD50 Rat: >630 mg/kg

Carcinogenicity of Ingredients

A: Ingredient Carcinogenicity - IARC/NTP

None of this product's components are listed by IARC or NTP.

B: Ingredient Carcinogenicity - ACGIH

None of this product's components are listed by ACGIH.

* * * 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.

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* * * Section 13 - Disposal Considerations * * *

Disposal Instructions

Reuse or recycle material whenever possible. Material may be disposed of at an industrial landfill.

US EPA Waste Number & Descriptions

A: General Product Information

Not federally regulated in the U.S. if disposed of "as is." Otherwise, characterize in accordance with applicable regulations (40 CFR 261 or state equivalent in the U.S.)

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)			
UN NA Number:	-			
Proper Shipping Name:	Not regulated			
Hazard Class:	-			
Packing Group:	-			
RQ:	-			
Other - Tech Name:	-			
Other - Marine Pollutant:	-			

Notes:

(1) When "Not regulated", enter the proper freight classification, "MSDS Number", and "Product Name" on the shipping paperwork.

Canadian Controlled Products Regulation PIN: Not regulated

* * * 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

None of the components are listed under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65), or CERCLA (40 CFR 302.4).

SARA 311/312 Physical and Health Hazard Categories:

Immediate (acute) Health Hazard: No
Delayed (chronic) Health Hazard: No
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
Petroleum waxes	Proprietary	Yes	No	Yes	Yes	No	Yes

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Other Regulations

A: General Product Information

No information available for product.

B: Component Analysis - WHMIS IDL

No components are listed in the WHMIS IDL.

C: Component Analysis - Inventory

Component	CAS #	TSCA	DSL	EINECS	AUST.	MITI
Petroleum waxes	Proprietary	Yes	Yes	Yes	Yes	Yes
Resin	Proprietary	Yes	Yes	No	Yes	Yes

* * * Section 16 - Other Information * * *

MSDS History

Original: October 12, 2001

Supersedes: January 19, 2005

Revised: November 12, 2007

MSDS Status

11/12/2007: Reviewed on a periodic basis in accordance with Alcoa policy. Changes in Sections 1, 2, 3, 4, 5, 8, 9, 11 and 14.

01/19/2005: Reviewed on a periodic basis in accordance with Alcoa policy. Changes in Sections 1, 2, 4, 5, 8, 11 and 15.

10/12/2001: New MSDS. Replaces Howmet MSDSs 607, 608, 609, 612, 613, 615, 628 and 641.

Prepared By

Hazardous Materials Control Committee

Preparer: Stephanie Williams, 412-553-1479/Jon N. Peace, 412-553-2293

MSDS System Number

160890

Other Information

* Guide to Occupational Exposure Values-2007, 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, February 2004.

* 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.

* expub, www.expub.com, Expert Publishing, LLC.

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

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NORM	Naturally Occurring Radioactive Materials
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
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 # 1172

PETROLEUM WAX



CAUTION

Physical Hazards: While not considered "flammable" or "combustible" as defined by OSHA or DOT, the material will burn if ignited.

Health Hazards: Health effects generally expected in cases of overexposures:

EYES: Dust or fume from processing: Can cause irritation.

SKIN: Dust or fume from processing: Can cause irritation. Contact with molten material can cause thermal burns.

INHALATION: Dust or fume from processing: Can cause irritation of upper respiratory tract.

Precautions: Avoid eye and skin contact. Avoid generating dust. Use with adequate ventilation. Use appropriate personal protective equipment (safety glasses/gloves) as recommended by health/safety professionals. Use appropriate respiratory protection (N95) in case of insufficient ventilation.

First Aid (dust or fume from processing): EYES: Flush 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. If molten material gets on skin, cool rapidly with cold water. Get medical treatment for thermal burn.

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.

Fire Fighting: Use dry chemical, water spray, foam or carbon dioxide extinguishing agents. Manual fire fighting may be difficult due to the presence of thick smoke.

Read Alcoa Material Safety Data Sheet No. 1172 for more information about use and disposal.

Emergency Phone: (412) 553-4001.

INGREDIENTS:	CAS NUMBERS:
Petroleum waxes	(--)
Resin	(--)
Dye	(--)

Alcoa Inc.

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11/07 1172

