

# Material Safety Data Sheet

May be used to comply with  
 OSHA's Hazard Communication Standard  
 29 CFR 1910.1200. Standard must be  
 consulted for specific requirements.



## Product Identity – Section I

<b>PRODUCT NAME:</b> Brill Part 1 (A&B) <b>CAS #:</b> See Below <b>MANUFACTURER:</b> Arcal Chemicals, Inc. <b>ADDRESS:</b> 223 Westhampton Avenue Capitol Heights, MD 20747	Emergency Tele: 1-800-424-9300 Revision Date: May 6, 2008 Other Tele: 301-336-9300 Fax: 301-336-6597
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## HAZARDOUS INGREDIENTS / OTHER COMPONENTS – SECTION II

MATERIAL / CAS #	ACGIH (TLV – TWA)	OSHA (PEL -TWA)
Phosphoric Acid CAS# 7664-38-2	1mg/m <sup>3</sup>	1mg/m <sup>3</sup>
Sulfuric Acid CAS# 7664-93-9	1mg/m <sup>3</sup>	1mg/m <sup>3</sup>
Hydrogen Fluoride CAS# 7664-39-3	3 ppm	3 ppm

## PHYSICAL DATA – SECTION III

<b>APPEARANCE</b> Colorless Solution	<b>ODOR</b> Acidic	<b>MELT POINT</b> NA	<b>SPECIFIC GRAVITY</b> 1.52
<b>VAPOR DENSITY</b> Equivalent to water	<b>% VOLATILE BY VOLUME</b> >50%	<b>BULK DENSITY</b> 12.66 #/GAL	<b>BOILING POINT</b> 230°F
<b>VAPOR PRESSURE</b> Similar to water	<b>% SOLUBILITY (H2O)</b> Complete	<b>PH of 1% solution = 2</b>	

## FIRE AND EXPLOSION HAZARD DATA – SECTION IV

<b>FLASH POINT</b> None	<b>NFPA FIRE HAZARDS</b>  <table border="1"> <tr> <td><b>HEALTH</b></td> <td>4</td> </tr> <tr> <td><b>FLAMMABILITY</b></td> <td>0</td> </tr> <tr> <td><b>REACTIVITY</b></td> <td>1</td> </tr> <tr> <td><b>SPECIFIC</b></td> <td></td> </tr> </table>	<b>HEALTH</b>	4	<b>FLAMMABILITY</b>	0	<b>REACTIVITY</b>	1	<b>SPECIFIC</b>	
<b>HEALTH</b>		4							
<b>FLAMMABILITY</b>		0							
<b>REACTIVITY</b>		1							
<b>SPECIFIC</b>									
<b>FLAMMABLE LIMITS</b> LEL NA UEL NA									
<b>EXTINGUISHING MEDIA</b> NA									
<b>SPECIAL FIRE FIGHTING PROCEDURES</b> Use self-contained breathing apparatus.									
<b>UNUSUAL FIRE AND EXPLOSION HAZARDS:</b> Concentrated, corrosive acidic solution. <b>DECOMPOSITION PRODUCTS UNDER FIRE CONDITIONS:</b> May liberate hydrogen fluoride and/or oxides of phosphorous, sulfur and carbon. <b>EMPTY CONTAINER WARNING:</b> Acid vapors and fluorides are hazardous.	4 = EXTREME 3 = HIGH 2 = MODERATE 1 = SLIGHT 0 = INSIGNIFICANT								

REACTIVITY DATA – SECTION V				BRILL A (cont.)	
<b>Stability:</b>	Stable		<b>CONDITIONS TO AVOID:</b> Contact with active metals or strong alkalis.		
<b>INCOMPATIBILITY (MATERIAL TO AVOID):</b> Strong Alkalis					
<b>HAZARDOUS DECOMPOSITION OR BYPRODUCTS:</b> May liberate hydrogen fluoride and/or oxides of phosphorus, carbon and sulfur.					
<b>HAZARDOUS POLYMERIZATION:</b> Will not occur.			<b>CONDITIONS TO AVOID:</b> Strong alkalis.		
HEALTH HAZRD DATA – SECTION VI					
<b>Route(s) of Entry:</b>	<b>Inhalation?</b>	Yes	<b>Skin?</b>	Yes	<b>Ingestion?</b> Yes
<b>Health Hazards (Acute and Chronic):</b> May cause severe skin burns with ulceration. Removes calcium from tissues with necrosis.					
<b>CARCINOGENICITY:</b>	NO	<b>NTP?</b>	NA	<b>IARC Monographs?</b>	NA
<b>OSHA?</b> NA					
<b>MEDICAL CONDITIONS</b>					
<b>GENERALLY AGGRAVATED by EXPOSURE:</b> Various types of dermatitis.					
EMERGENCY AND FIRST AID PROCEDURES					
<b>EYE CONTACT:</b> Flush with large amounts of flowing water for 15 minutes. If <u>sterile 1% calcium gluconate solution</u> is available, washing may be reduced to 5 minutes, after which the 1% calcium gluconate solution should be used repeatedly to irrigate.					
<b>SKIN CONTACT:</b> <u>Remove any contaminated clothing</u> and flush with plenty of cool water; speed in washing off acid is of primary importance. If 0.13% benzalkonium chloride solution (Zephiran) or 2.5% calcium gluconate gel is available, the water rinse may be reduced to 5 minutes, with the soaks or gel applied as soon as the rinsing is stopped.					
<b>INHALATION:</b> If overcome from inhalation, remove patient from exposure and seek medical attention.					
<b>INGESTION:</b> Have the victim drink large amounts of water as quickly as possible to dilute the acid. Do not induce vomiting. Do not give emetics or baking soda.					
PRECAUTIONS FOR SAFE HANDLING AND USE – SECTION VII					
<b>Steps to be taken in case material is released or spilled:</b> Contain the spill. Collect the material into a plastic container. The affected area can be neutralized with a solution of sodium hydroxide.					
<b>Waste Disposal Method:</b> All federal, state and local regulations must be followed. This product may be neutralized with a solution of sodium hydroxide.					
<b>Precautions to be taken in handling and storing:</b> Rubber gloves, goggles and other protective gear should be used in handling. Store in heavy-duty plastic containers.					
CONTROL MEASURES – SECTION VIII					
<b>Respiratory or breathing apparatus:</b> Respiratory protection should be used in addition to good ventilation.					
<b>Ventilation:</b>	Yes	<b>Local Exhaust:</b>	Yes	<b>Special:</b>	
		<b>Mechanical:</b>		<b>Other:</b>	
<b>Protective Gloves:</b> Yes		<b>Eye Protection:</b> Yes, preferably splash resistant goggles.			
<b>Other Protective Clothing or Equipment:</b> Waterproof, chemical resistant aprons.					
TRANSPORTATION INFORMATION					
<b>PROPER SHIPPING NAME:</b> Corrosive Liquid, toxic, n.o.s. (Ammonium Hydrogen Difluoride, Sulfuric Acid), 8 (6.1), UN2922, PG: II, Corrosive, Toxic					