

**SECTION 1: Identification of the substance/mixture and of the company/undertaking**

**1.1. Identification**

Product form : Mixture  
Product name : COIL BRITE  
Product code :

**1.2. Relevant identified uses of the substance or mixture and uses advised against**

No additional information available

**1.3. Details of the supplier of the safety data sheet**

MISCO INDUSTRIAL, LLC.  
1018 STEARMAN DRIVE  
WHITE HOUSE, TN 37188  
T 615-334-1861

**1.4. Emergency telephone number**

Emergency number : CHEM TEL 800-255-3924

**SECTION 2: Hazard(s) identification**

**2.1. Classification of the substance or mixture**

**GHS-US classification**

Acute Tox. 4 (Oral) Harmful if swallowed  
Skin Corr. 1A Causes severe skin burns and eye damage  
Eye Dam. 1 Causes serious eye damage

**2.2. Label elements**

**GHS-US labelling**

Hazard pictograms (GHS-US) :



GHS05

Signal word (GHS-US) : Danger  
Hazard statements (GHS-US) : Harmful if swallowed  
Causes severe skin burns and eye damage  
Precautionary statements (GHS-US) : Do not breathe vapours, spray, mist  
Wash hands thoroughly after handling  
Do not eat, drink or smoke when using this product  
Wear eye protection, protective gloves  
If swallowed: Call a doctor if you feel unwell  
If swallowed: rinse mouth. Do NOT induce vomiting  
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower  
If inhaled: Remove person to fresh air and keep comfortable for breathing  
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
Immediately call a doctor  
Specific treatment (see First Aid measures on this label)  
Rinse mouth  
Wash contaminated clothing before reuse  
Store locked up  
Dispose of contents/container to an approved waste disposal plant

**2.3. Other hazards**

No additional information available

**2.4. Unknown acute toxicity (GHS US)**

Not applicable

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### SECTION 3: Composition/information on ingredients

#### 3.1. Substance

Not applicable

#### 3.2. Mixture

Name	Product identifier	%	GHS-US classification
AMmonium hydrogen difluoride	(CAS No) 1341-49-7	7 - 11	Acute Tox. 3 (Oral), H301 Skin Corr. 1B, H314
Phosphoric acid	(CAS No) 7664-38-2	0.75 - 9	Skin Corr. 1B, H314
Sulfuric acid, conc>51%, aqueous solutions	(CAS No) 7664-93-9	4 - 7	Skin Corr. 1A, H314 Carc. 1A, H350

Full text of H-statements: see section 16

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

- First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
- First-aid measures after inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.
- First-aid measures after skin contact : Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Immediately call a POISON CENTER or doctor/physician.
- First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.
- First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Call a POISON CENTER or doctor/physician if you feel unwell. Immediately call a POISON CENTER or doctor/physician.

#### 4.2. Most important symptoms and effects, both acute and delayed

- Symptoms/injuries : Causes severe skin burns and eye damage.
- Symptoms/injuries after eye contact : Causes serious eye damage.
- Symptoms/injuries after ingestion : Swallowing a small quantity of this material will result in serious health hazard.

#### 4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

- Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray. Sand.
- Unsuitable extinguishing media : Do not use a heavy water stream.

#### 5.2. Special hazards arising from the substance or mixture

- Reactivity : Corrosive vapours.

#### 5.3. Advice for firefighters

- Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.
- Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

##### 6.1.1. For non-emergency personnel

- Emergency procedures : Evacuate unnecessary personnel.

##### 6.1.2. For emergency responders

- Protective equipment : Equip cleanup crew with proper protection.
- Emergency procedures : Ventilate area.

#### 6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

#### 6.3. Methods and material for containment and cleaning up

- Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.

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### 6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapour. Do not breathe spray, mist, vapours. Avoid contact during pregnancy/while nursing. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood.

Hygiene measures : Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling.

### 7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Comply with applicable regulations.

Storage conditions : Keep only in the original container in a cool, well ventilated place away from : Heat sources. Keep container closed when not in use.

Incompatible products : Strong bases. Strong acids.

Incompatible materials : Sources of ignition. Direct sunlight.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

sulfuric acid, conc>51%, aqueous solutions (7664-93-9)		
ACGIH	Remark (ACGIH)	Pulm func
OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	1 mg/m <sup>3</sup>

phosphoric acid (7664-38-2)		
ACGIH	Remark (ACGIH)	URT, eye, & skin irr
OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	1 mg/m <sup>3</sup>

### 8.2. Exposure controls

Personal protective equipment : Gloves. Safety glasses.



Hand protection : Wear protective gloves.

Eye protection : Chemical goggles or face shield.

Skin and body protection : Wear suitable protective clothing.

Respiratory protection : Wear appropriate mask.

Other information : Do not eat, drink or smoke during use.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state : Liquid  
Color : Green  
Odor : Mild Acidic  
Odor threshold : No data available  
pH : No data available  
Melting point : No data available  
Freezing point : No data available  
Boiling point : No data available  
Flash point : No data available  
Relative evaporation rate (butylacetate=1) : No data available  
Flammability (solid, gas) : No data available  
Explosive limits : No data available

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Explosive properties	: No data available
Oxidizing properties	: No data available
Vapor pressure	: No data available
Relative density	: No data available
Relative vapour density at 20 °C	: No data available
Solubility	: Water: Solubility in water of component(s) of the mixture : • ammonium hydrogen difluoride: 63 g/100ml • nonylphenoxypoly(ethyleneoxy)ethanol: soluble • phosphoric acid: Complete
Log Pow	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Corrosive vapors.

### 10.2. Chemical stability

Not established.

### 10.3. Possibility of hazardous reactions

Not established.

### 10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures.

### 10.5. Incompatible materials

Strong acids. Strong bases.

### 10.6. Hazardous decomposition products

Carbon monoxide. Carbon dioxide. Thermal decomposition generates : Corrosive vapours.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity : Oral: Harmful if swallowed.

COIL BRITE	
ATE US (oral)	1181.818 mg/kg bodyweight
Ammonium hydrogen difluoride (1341-49-7)	
LD50 oral rat	130 mg/kg (Rat; Literature)
ATE US (oral)	130.000 mg/kg bodyweight
Sulfuric acid, conc>51%, aqueous solutions (7664-93-9)	
LD50 oral rat	> 2140 mg/kg (Rat)
Phosphoric acid (7664-38-2)	
LD50 oral rat	4400 mg/kg (Rat)
ATE US (oral)	4400.000 mg/kg bodyweight

Skin corrosion/irritation	: Causes severe skin burns and eye damage.
Serious eye damage/irritation	: Causes serious eye damage.
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified.

Sulfuric acid, conc>51%, aqueous solutions (7664-93-9)	
IARC group	1 - Carcinogenic to humans

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<b>Sulfuric acid, conc&gt;51%, aqueous solutions (7664-93-9)</b>	
National Toxicology Program (NTP) Status	2 - Known Human Carcinogens
Reproductive toxicity	: Not classified
Specific target organ toxicity (single exposure)	: Not classified
Specific target organ toxicity (repeated exposure)	: Not classified
Aspiration hazard	: Not classified
Potential adverse human health effects and symptoms	: Based on available data, the classification criteria are not met. Harmful if swallowed.
Symptoms/injuries after eye contact	: Causes serious eye damage.
Symptoms/injuries after ingestion	: Swallowing a small quantity of this material will result in serious health hazard.

### SECTION 12: Ecological information

#### 12.1. Toxicity

<b>Ammonium hydrogen difluoride (1341-49-7)</b>	
LC50 fish 1	< 562 mg/l (LC50; 96 h; Brachydanio rerio)
<b>Sulfuric acid, conc&gt;51%, aqueous solutions (7664-93-9)</b>	
LC50 fish 1	42 mg/l (LC50; 96 h)
EC50 Daphnia 1	29 mg/l (EC50; 24 h)
<b>Phosphoric acid (7664-38-2)</b>	
LC50 fish 1	138 mg/l (LC50)

#### 12.2 COIL BRITE. Persistence and degradability

<b>COIL BRITE</b>	
Persistence and degradability	Not established.
<b>Ammonium hydrogen difluoride (1341-49-7)</b>	
Persistence and degradability	Biodegradability: not applicable. Not established.
ThOD	Not applicable
<b>Sulfuric acid, conc&gt;51%, aqueous solutions (7664-93-9)</b>	
Persistence and degradability	Biodegradability: not applicable. No (test)data on mobility of the components available. Not established.
Biochemical oxygen demand (BOD)	Not applicable
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
<b>Phosphoric acid (7664-38-2)</b>	
Persistence and degradability	Biodegradability: not applicable. No (test)data on mobility of the components available. Not established.
Biochemical oxygen demand (BOD)	Not applicable
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable

#### 12.3. Bioaccumulative potential

<b>COIL BRITE</b>	
Bioaccumulative potential	Not established.
<b>Ammonium hydrogen difluoride (1341-49-7)</b>	
Bioaccumulative potential	Bioaccumulation: not applicable. Not established.
<b>Sulfuric acid, conc&gt;51%, aqueous solutions (7664-93-9)</b>	
Log Pow	-2.20 (Estimated value)
Bioaccumulative potential	Bioaccumulation: not applicable. Not established.

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Phosphoric acid (7664-38-2)	
Log Pow	-0.77 (Estimated value)
Bioaccumulative potential	Bioaccumulation: not applicable. Not established.

### 12.4. Mobility in soil

No additional information available

### 12.5. Other adverse effects

Effect on the global warming : No known ecological damage caused by this product.

Other information : Avoid release to the environment.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container to an approved waste disposal plant.

Ecology - waste materials : Avoid release to the environment.

## SECTION 14: Transport information

### Department of Transportation (DOT)

In accordance with DOT

Transport document description : UN2817 Ammonium hydrogendifluoride, solution, 8, II

UN-No.(DOT) : UN2817

Proper Shipping Name (DOT) : Ammonium hydrogendifluoride, solution

Transport hazard class(es) (DOT) : 8 - Class 8 - Corrosive material 49 CFR 173.136

Hazard labels (DOT) : 8 - Corrosive  
6.1 - Poison



Packing group (DOT) : II - Medium Danger

DOT Packaging Bulk (49 CFR 173.xxx) : 243

DOT Packaging Exceptions (49 CFR 173.xxx) : 154

DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) : 1 L

DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) : 30 L

DOT Vessel Stowage Location : B - (i) The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel carrying a number of passengers limited to not more than the larger of 25 passengers, or one passenger per each 3 m of overall vessel length; and (ii) "On deck only" on passenger vessels in which the number of passengers specified in paragraph (k)(2)(i) of this section is exceeded.

DOT Vessel Stowage Other : 40 - Stow "clear of living quarters"

Other information : No supplementary information available.

### TDG

No additional information available

### Transport by sea

UN-No. (IMDG) : 2817

Proper Shipping Name (IMDG) : AMMONIUM HYDROGENDIFLUORIDE SOLUTION

Class (IMDG) : 8 - Corrosive substances

Packing group (IMDG) : II - substances presenting medium danger

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### Air transport

UN-No. (IATA)	: 2817
Proper Shipping Name (IATA)	: Ammonium hydrogendifluoride solution
Class (IATA)	: 8 - Corrosives
Packing group (IATA)	: II - Medium Danger

## SECTION 15: Regulatory information

### 15.1. US Federal regulations

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

Chemical(s) subject to the reporting requirements of Section 313 or Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372.

sulfuric acid, conc>51%, aqueous solutions	CAS No 7664-93-9	4 - 7%
<b>Ammonium hydrogen difluoride (1341-49-7)</b>		
Not subject to reporting requirements of the United States SARA Section 313		
RQ (Reportable quantity, section 304 of EPA's List of Lists)	100 lb	
<b>Sulfuric acid, conc&gt;51%, aqueous solutions (7664-93-9)</b>		
Not subject to reporting requirements of the United States SARA Section 313		
Subject to reporting requirements of United States SARA Section 313		
RQ (Reportable quantity, section 304 of EPA's List of Lists)	1000 lb	
SARA Section 302 Threshold Planning Quantity (TPQ)	1000 lb	
<b>Phosphoric acid (7664-38-2)</b>		
Not subject to reporting requirements of the United States SARA Section 313		
RQ (Reportable quantity, section 304 of EPA's List of Lists)	5000 lb	

### 15.2. International regulations

#### CANADA

No additional information available

#### EU-Regulations

No additional information available

### National regulations

<b>Sulfuric acid, conc&gt;51%, aqueous solutions (7664-93-9)</b>
Listed on IARC (International Agency for Research on Cancer)
Listed as carcinogen on NTP (National Toxicology Program)

### 15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer and/or reproductive harm

<b>Ammonium hydrogen difluoride (1341-49-7)</b>
U.S. - Massachusetts - Right To Know List
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) List
<b>Sulfuric acid, conc&gt;51%, aqueous solutions (7664-93-9)</b>
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) List
<b>Phosphoric acid (7664-38-2)</b>
U.S. - Massachusetts - Right To Know List
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) List

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### SECTION 16: Other information

Other information : None.

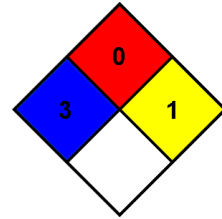
Full text of H-statements:

Acute Tox. 3 (Oral)	Acute toxicity (oral), Category 3
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Carc. 1A	Carcinogenicity, Category 1A
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Skin Corr. 1A	Skin corrosion/irritation, Category 1A
Skin Corr. 1B	Skin corrosion/irritation, Category 1B
H301	Toxic if swallowed
H302	Harmful if swallowed
H314	Causes severe skin burns and eye damage
H318	Causes serious eye damage
H350	May cause cancer

NFPA health hazard : 3 - Short exposure could cause serious temporary or residual injury even though prompt medical attention was given.

NFPA fire hazard : 0 - Materials that will not burn.

NFPA reactivity : 1 - Normally stable, but can become unstable at elevated temperatures and pressures or may react with water with some release of energy, but not violently.



HMIS III Rating

Health : 3 Serious Hazard - Major injury likely unless prompt action is taken and medical treatment is given

Flammability : 0 Minimal Hazard - Materials that will not burn

Physical : 0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.

Personal Protection : B  
B - Safety glasses, Gloves

SDS US (GHS HazCom 2012)

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