

## SECTION 1: Identification

### 1.1. Identification

Product form : Mixture  
Trade name : MasterBrite  
Product code : 1010

### 1.2. Recommended use and restrictions on use

Recommended use : Acidic cleaner

### 1.3. Supplier

Synthetic Labs  
24 Victory Lane  
Dracut, MA, 01826  
United States  
T 800.255.4050 - F 978.957.5122  
[www.syntecpro.com](http://www.syntecpro.com)

### 1.4. Emergency telephone number

Emergency number : Infotrac 24 Hour Medical Emergency Number: 1-800-535-5053

## SECTION 2: Hazard(s) identification

### 2.1. Classification of the substance or mixture

#### GHS US classification

Corrosive to metals Category 1	May be corrosive to metals
Acute toxicity (oral) Category 4	Harmful if swallowed
Skin corrosion/irritation Category 1A	Causes severe skin burns and eye damage
Serious eye damage/eye irritation Category 1	Causes serious eye damage
Carcinogenicity Category 1A	May cause cancer

### 2.2. GHS Label elements, including precautionary statements

#### GHS US labeling

Hazard pictograms (GHS US)



Signal word (GHS US)

: Danger

Hazard statements (GHS US)

: May be corrosive to metals  
Harmful if swallowed  
Causes severe skin burns and eye damage  
Causes serious eye damage  
May cause cancer

Precautionary statements (GHS US)

: Obtain special instructions before use.  
Do not handle until all safety precautions have been read and understood.  
Keep only in original container.  
Do not breathe dust/fume/gas/mist/vapors/spray.  
Wash hands, forearms and face thoroughly after handling.  
Do not eat, drink or smoke when using this product.  
Wear protective gloves/protective clothing/eye protection/face protection.

If swallowed: Call a poison center or 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.  
 If exposed or concerned: Get medical advice/attention.  
 Immediately call a poison center or doctor.  
 Specific treatment (see supplemental first aid instruction on this label).  
 Rinse mouth.  
 Wash contaminated clothing before reuse.  
 Absorb spillage to prevent material-damage.  
 Store locked up.  
 Store in corrosive resistant container with a resistant inner liner.  
 Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

### 2.3. Other hazards which do not result in classification

No additional information available

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

No additional information available

## SECTION 3: Composition/Information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

Name	Product identifier	%	GHS US classification
Sulfuric Acid	CAS-No.: 7664-93-9	15 – 20	Met. Corr. 1, H290 Acute Tox. 1 (Inhalation:vapour), H330 Skin Corr. 1A, H314 Carc. 1A, H350
Ammonium Hydrogendifluoride	CAS-No.: 1341-49-7	10 – 15	Acute Tox. 3 (Oral), H301 Skin Corr. 1B, H314 Eye Dam. 1, H318

Full text of hazard classes and H-statements : see section 16

## SECTION 4: First-aid measures

### 4.1. Description of first aid measures

First-aid measures general : Call a physician immediately.  
 First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing.  
 First-aid measures after skin contact : Rinse skin with water/shower. Remove/Take off immediately all contaminated clothing. Call a physician immediately. In case of skin contact, wearing rubber gloves rub 2.5% calcium gluconate gel continuously into the affected area for 1.5 hours or until further medical care is available.  
 First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately.  
 First-aid measures after ingestion : Rinse mouth. Do not induce vomiting. Call a physician immediately.

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### 4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects after skin contact : Burns.  
Symptoms/effects after eye contact : Serious damage to eyes.  
Symptoms/effects after ingestion : Burns.

### 4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

## SECTION 5: Fire-fighting measures

### 5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.

### 5.2. Specific hazards arising from the chemical

Hazardous decomposition products in case of fire : Toxic fumes may be released.

### 5.3. Special protective equipment and precautions for fire-fighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

## SECTION 6: Accidental release measures

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

#### 6.1.1. For non-emergency personnel

Emergency procedures : Only qualified personnel equipped with suitable protective equipment may intervene. Do not breathe dust/fume/gas/mist/vapors/spray.

#### 6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

### 6.2. Environmental precautions

Avoid release to the environment. Notify authorities if product enters sewers or public waters.

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

Methods for cleaning up : Take up liquid spill into absorbent material. Notify authorities if product enters sewers or public waters.  
Other information : Dispose of materials or solid residues at an authorized site.

### 6.4. Reference to other sections

For further information refer to section 13.

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### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

Precautions for safe handling	: Ensure good ventilation of the work station. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Take all necessary technical measures to avoid or minimize the release of the product on the workplace. Limit quantities of product at the minimum necessary for handling and limit the number of exposed workers. Provide local exhaust or general room ventilation. Wear personal protective equipment. Floors, walls and other surfaces in the hazard area must be cleaned regularly. Avoid contact with skin and eyes. Do not breathe dust/fume/gas/mist/vapors/spray.
Hygiene measures	: Separate working clothes from town clothes. Launder separately. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

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

Storage conditions	: Store in corrosive resistant container with a resistant inner liner. Keep only in original container. Store locked up. Store in a well-ventilated place. Keep cool.
Incompatible materials	: Metals.

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

<b>MasterBrite</b>	
No additional information available	
<b>Ammonium Hydrogendifluoride (1341-49-7)</b>	
<b>USA - ACGIH - Occupational Exposure Limits</b>	
ACGIH OEL TWA	≈ 2.5 fibers/cm <sup>3</sup>
<b>USA - OSHA - Occupational Exposure Limits</b>	
OSHA PEL (TWA) [1]	≈ 2.5 mg/m <sup>3</sup>
<b>Sulfuric Acid (7664-93-9)</b>	
<b>USA - ACGIH - Occupational Exposure Limits</b>	
Local name	Sulfuric acid
ACGIH OEL TWA	0.2 mg/m <sup>3</sup>
Remark (ACGIH)	Pulm func
<b>USA - OSHA - Occupational Exposure Limits</b>	
Local name	Sulfuric acid
OSHA PEL (TWA) [1]	1 mg/m <sup>3</sup>

#### 8.2. Appropriate engineering controls

Appropriate engineering controls	: Ensure good ventilation of the work station.
Environmental exposure controls	: Avoid release to the environment.

#### 8.3. Individual protection measures/Personal protective equipment

<b>Hand protection:</b>
Protective gloves

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### Eye protection:

Safety glasses

### Skin and body protection:

Wear suitable protective clothing

### Respiratory protection:

[In case of inadequate ventilation] wear respiratory protection.

### Personal protective equipment symbol(s):



## SECTION 9: Physical and chemical properties

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

Physical state	: Liquid
Appearance	: Liquid.
Color	: pink
Odor	: acidic
Odor threshold	: No data available
pH	: 1
Melting point	: Not applicable
Freezing point	: 32 °F
Boiling point	: No data available
Flash point	: No data available
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: Not applicable.
Vapor pressure	: No data available
Relative vapor density at 20°C	: No data available
Relative density	: No data available
Density	: 1.17 g/m <sup>3</sup>
Solubility	: No data available
Partition coefficient n-octanol/water (Log Pow)	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosion limits	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

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### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

### 10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

### 10.5. Incompatible materials

metals.

### 10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity (oral) : Harmful if swallowed.  
Acute toxicity (dermal) : Not classified  
Acute toxicity (inhalation) : Not classified

#### MasterBrite

ATE US (oral)	1083.333 mg/kg body weight
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#### Ammonium Hydrogendifluoride (1341-49-7)

LD50 oral rat	130 mg/kg (OECD 401: Acute Oral Toxicity, Rat, Male / female, Experimental value, Oral, 14 day(s))
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ATE US (oral)	130 mg/kg body weight
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#### Sulfuric Acid (7664-93-9)

LD50 oral rat	≈ 2140 mg/kg
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LC50 Inhalation - Rat	0.38 mg/l (Equivalent or similar to OECD 403, 4 h, Rat, Male / female, Experimental value, Inhalation (mixture of vapour and aerosol), 14 day(s))
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LC50 Inhalation - Rat (Vapours)	≈ 510 mg/l/4h
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ATE US (vapors)	0.38 mg/l/4h
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ATE US (dust, mist)	0.38 mg/l/4h
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Skin corrosion/irritation : Causes severe skin burns.  
pH: 1

#### Ammonium Hydrogendifluoride (1341-49-7)

pH	3.5 (5 %)
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#### Sulfuric Acid (7664-93-9)

pH	No data available in the literature
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Serious eye damage/irritation : Causes serious eye damage.  
pH: 1

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Ammonium Hydrogendifluoride (1341-49-7)	
pH	3.5 (5 %)
Sulfuric Acid (7664-93-9)	
pH	No data available in the literature
Respiratory or skin sensitization	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: May cause cancer.
Sulfuric Acid (7664-93-9)	
National Toxicity Program (NTP) Status	Known Human Carcinogens
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified
Viscosity, kinematic	: No data available
Sulfuric Acid (7664-93-9)	
Viscosity, kinematic	No data available in the literature
Symptoms/effects after skin contact	: Burns.
Symptoms/effects after eye contact	: Serious damage to eyes.
Symptoms/effects after ingestion	: Burns.

## SECTION 12: Ecological information

### 12.1. Toxicity

Ecology - general : Before neutralisation, the product may represent a danger to aquatic organisms.

Ammonium Hydrogendifluoride (1341-49-7)	
LC50 - Fish [1]	421.4 mg/l (96 h, Pisces, Estimated value)
Sulfuric Acid (7664-93-9)	
LC50 - Fish [1]	16 – 28 mg/l (96 h, Lepomis macrochirus, Static system, Fresh water, Experimental value, Lethal)
EC50 - Crustacea [1]	> 100 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, GLP)
EC50 72h - Algae [1]	> 100 mg/l (OECD 201: Alga, Growth Inhibition Test, Desmodesmus subspicatus, Static system, Fresh water, Experimental value, Growth rate)

### 12.2. Persistence and degradability

Ammonium Hydrogendifluoride (1341-49-7)	
Persistence and degradability	Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable (inorganic)
ThOD	Not applicable (inorganic)
Sulfuric Acid (7664-93-9)	
Persistence and degradability	Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable

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### Sulfuric Acid (7664-93-9)

ThOD	Not applicable
BOD (% of ThOD)	Not applicable

### 12.3. Bioaccumulative potential

#### Ammonium Hydrogendifluoride (1341-49-7)

Bioaccumulative potential	Not bioaccumulative.
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#### Sulfuric Acid (7664-93-9)

Bioaccumulative potential	Not bioaccumulative.
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### 12.4. Mobility in soil

#### Ammonium Hydrogendifluoride (1341-49-7)

Ecology - soil	No (test)data on mobility of the substance available.
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#### Sulfuric Acid (7664-93-9)

Surface tension	No data available in the literature
Ecology - soil	No (test)data on mobility of the substance available.

### 12.5. Other adverse effects

No additional information available

## SECTION 13: Disposal considerations

### 13.1. Disposal methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

## SECTION 14: Transport information

### 14.1. UN number

DOT NA No	: UN2922
UN-No. (TDG)	: Not applicable
UN-No. (IMDG)	: Not applicable
UN-No. (IATA)	: Not applicable

### 14.2. UN proper shipping name

Proper Shipping Name (DOT)	: Corrosive liquids, toxic, n.o.s.
Proper Shipping Name (TDG)	: Not applicable
Proper Shipping Name (IMDG)	: Not applicable
Proper Shipping Name (IATA)	: Not applicable

### 14.3. Transport hazard class(es)

<b>DOT</b>	
Transport hazard class(es) (DOT)	: 8 (6.1)
Hazard labels (DOT)	: 8, 6.1



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### TDG

Transport hazard class(es) (TDG) : Not applicable

### IMDG

Transport hazard class(es) (IMDG) : Not applicable

### IATA

Transport hazard class(es) (IATA) : Not applicable

#### 14.4. Packing group

Packing group (DOT) : II  
Packing group (TDG) : Not applicable  
Packing group (IMDG) : Not applicable  
Packing group (IATA) : Not applicable

#### 14.5. Environmental hazards

Other information : No supplementary information available.

#### 14.6. Special precautions for user

##### DOT

UN-No.(DOT) : UN2922  
DOT Special Provisions (49 CFR 172.102) : B3 - MC 300, MC 301, MC 302, MC 303, MC 305, and MC 306 and DOT 406 cargo tanks and DOT 57 portable tanks are not authorized.  
IB2 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized.  
T7 - 4 178.274(d)(2) Normal..... 178.275(d)(3)  
TP2 - a. The maximum degree of filling must not exceed the degree of filling determined by the following: (image) Where: tr is the maximum mean bulk temperature during transport, tf is the temperature in degrees celsius of the liquid during filling, and a is the mean coefficient of cubical expansion of the liquid between the mean temperature of the liquid during filling (tf) and the maximum mean bulk temperature during transportation (tr) both in degrees celsius. b. For liquids transported under ambient conditions may be calculated using the formula: (image) Where: d15 and d50 are the densities (in units of mass per unit volume) of the liquid at 15 C (59 F) and 50 C (122 F), respectively.  
DOT Packaging Exceptions (49 CFR 173.xxx) : 154  
DOT Packaging Non Bulk (49 CFR 173.xxx) : 202  
DOT Packaging Bulk (49 CFR 173.xxx) : 243  
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"

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### TDG

Emergency Response Guide (ERG) Number : 154

### IMDG

No data available

### IATA

No data available

### 14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

## SECTION 15: Regulatory information

### 15.1. US Federal regulations

Commercial status of components according to the United States Environmental Protection Agency's Toxic Substances Control Act (TSCA):

Name	CAS-No.	Listing	Commercial status	Flags
Ammonium Hydrogendifluoride	1341-49-7	Present	Active	
Sulfuric Acid	7664-93-9	Present	Active	

#### Ammonium Hydrogendifluoride (1341-49-7)

Not subject to reporting requirements of the United States SARA Section 313

CERCLA RQ	100 lb
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#### Sulfuric Acid (7664-93-9)

Not subject to reporting requirements of the United States SARA Section 313

Subject to reporting requirements of United States SARA Section 313

CERCLA RQ	1000 lb
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RQ (Reportable quantity, section 304 of EPA's List of Lists)	1000 lb
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SARA Section 302 Threshold Planning Quantity (TPQ)	1000 lb
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### 15.2. International regulations

#### CANADA

##### Ammonium Hydrogendifluoride (1341-49-7)

Listed on the Canadian DSL (Domestic Substances List)

##### Sulfuric Acid (7664-93-9)

Listed on the Canadian DSL (Domestic Substances List)

### EU-Regulations

No additional information available

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### National regulations

#### Sulfuric Acid (7664-93-9)

Listed as carcinogen on NTP (National Toxicology Program)

### 15.3. US State regulations

Component	State or local regulations
Ammonium Hydrogendifluoride(1341-49-7)	U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) List
Sulfuric Acid(7664-93-9)	U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) List

## SECTION 16: Other information

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Revision date : 3/23/2017

#### Hazard 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.

Safety Data Sheet (SDS), USA

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.