

Safety Data Sheet
Step I (w/o HF)

SDS Revision Date:

08/20/2015

1. Identification**1.1. Product identifier****Product Identity**

Step I (w/o HF)

1.2. Relevant identified uses of the substance or mixture and uses advised against**Intended Use / Application Method**

See Technical Data Sheet.

1.3. Details of the supplier of the safety data sheet**Company Name**Deep South Chemical, Inc.
229 Millstone Road
Broussard, LA 70518**CHEMTREC (USA)**

(800) 424-9300

Emergency Phone

(337) 837-9931; Outside the U.S.A. (703) 527-3887

Customer Service: Deep South Chemical, Inc.

Phone: (800) 737-3546 Fax: (337) 837-9565

2. Hazard(s) identification**2.1. Classification of the substance or mixture**

Acute Tox. 4;H302	Harmful if swallowed.
Acute Tox. 5;H313	May be harmful in contact with skin. (Not adopted by US OSHA)
Acute Tox. 3;H331	Toxic if inhaled.
Skin Corr. 1A;H314	Causes severe skin burns and eye damage.
Eye Dam. 1;H318	Causes serious eye damage.
Skin Sens. 1;H317	May cause an allergic skin reaction.
Aquatic Chronic 1;H410	Very toxic to aquatic life with long lasting effects.

2.2. Label elements

Using the Toxicity Data listed in section 11 and 12 the product is labeled as follows.

**Danger**

H302 Harmful if swallowed.
H313 May be harmful in contact with skin.
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H331 Toxic if inhaled.
H410 Very toxic to aquatic life with long lasting effects.



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[Prevention]:

- P261 Avoid breathing dust / fume / gas / mist / vapors / spray.
- P264 Wash thoroughly after handling.
- P270 Do not eat, drink or smoke when using this product.
- P271 Use only outdoors or in a well-ventilated area.
- P272 Contaminated work clothing should not be allowed out of the workplace.
- P273 Avoid release to the environment.
- P280 Wear protective gloves / eye protection / face protection.

[Response]:

- P301+312 IF SWALLOWED: Call a POISON CENTER or doctor / physician if you feel unwell.
- P302+352 IF ON SKIN: Wash with plenty of soap and water.
- P303+361+353 IF ON SKIN (or hair): Remove / Take off immediately all contaminated clothing. Rinse skin with water / shower.
- P304+312 IF INHALED: Call a POISON CENTER or doctor / physician if you feel unwell.
- P305+351+338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.
- P310 Immediately call a POISON CENTER or doctor / physician.
- P311 Call a POISON CENTER or doctor / physician.
- P313 Get medical advice / attention.
- P321 Specific treatment (see information on this label).
- P330 Rinse mouth.
- P331 Do NOT induce vomiting.
- P333+313 If skin irritation or a rash occurs: Get medical advice / attention.
- P340 Remove victim to fresh air and keep at rest in a position comfortable for breathing.
- P363 Wash contaminated clothing before reuse.
- P391 Collect spillage.

[Storage]:

- P403+233 Store in a well ventilated place. Keep container tightly closed.
- P405 Store locked up.

[Disposal]:

- P501 Dispose of contents / container in accordance with local / national regulations.

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3. Composition/information on ingredients

This product contains the following substances that present a hazard within the meaning of the relevant State and Federal Hazardous Substances regulations.

Ingredient/Chemical Designations	Weight %	GHS Classification	Notes
Phosphoric acid, 2,2-dichloroethenyl dimethyl ester CAS Number: 0000062-73-7	5 - 10	Acute tox. 2;H330 Acute tox. 3;H311 Acute tox. 3;H301 Skin Sens. 1;H317 Aquatic Acute 1;H400	[1][2]
Hydrochloric acid CAS Number: 0007647-01-0	5 - 10	Skin Corr. 1B;H314 STOT SE 3;H335	[1][2]
Isopropenyl acetylene CAS Number: 0000078-80-8	5 - 10	Flam. Liq. 1;H224 Acute Tox. 4;H302 Asp. Tox. 1;H304 Skin Irrit. 2;H315 Eye Irrit. 2;H319 Acute Tox. 4;H332 STOT SE 3;H335	[1]
Ammonium fluoride. CAS Number: 0012125-01-8	1 - 5	Acute Tox. 3;H331 Acute Tox. 3;H311 Acute Tox. 3;H301	[1]
CHLOROBENZYLIDENE MALONITRILE CAS Number: 0002698-41-1	1 - 5	Acute Tox. 3;H301 Skin Sens. 1;H317 Resp. Sens. 1;H334 Aquatic Acute 1;H400	[1][2]

In accordance with paragraph (i) of §1910.1200, the specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

[1] Substance classified with a health or environmental hazard.

[2] Substance with a workplace exposure limit.

[3] PBT-substance or vPvB-substance.

*The full texts of the phrases are shown in Section 16.

4. First aid measures

4.1. Description of first aid measures

General	In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person.
Inhalation	Remove to fresh air, keep patient warm and at rest. If breathing is irregular or stopped, give artificial respiration. If unconscious place in the recovery position and obtain immediate medical attention. Give nothing by mouth.
Eyes	Irrigate copiously with clean water for at least 15 minutes, holding the eyelids apart and seek medical attention.
Skin	Flush area with large amounts of water. If burning continues, use alkaline base soap. Rub well then flush with water.
Ingestion	If swallowed obtain immediate medical attention. Keep at rest. Do NOT induce vomiting.

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

Overview	Product is corrosive to eyes and skin, and is slightly toxic if ingested. See section 2 for further details.
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Inhalation	Toxic if inhaled.
Eyes	Causes serious eye damage.
Skin	May be harmful in contact with skin. (Not adopted by US OSHA) May cause an allergic skin reaction. Causes severe skin burns and eye damage.
Ingestion	Harmful if swallowed.

5. Fire-fighting measures

5.1. Extinguishing media

Recommended extinguishing media; alcohol resistant foam, CO₂, powder, water spray.
Do not use: water jet.

5.2. Special hazards arising from the substance or mixture

Reacts with metals. May release hydrogen gas.
Hazardous decomposition: No hazardous decomposition data available.
Avoid breathing dust / fume / gas / mist / vapors / spray.

5.3. Advice for fire-fighters

None

ERG Guide No. 154

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Put on appropriate personal protective equipment (see section 8).
Reacts with metals. May release hydrogen gas.

6.2. Environmental precautions

Do not allow spills to enter drains or waterways.
Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

6.3. Methods and material for containment and cleaning up

Reacts with metals. May release hydrogen gas.
Contain spill. Do not contaminate sewers or ground areas. Neutralize with alkaline materials, then flush spill area with large amounts of water.

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7. Handling and storage

7.1. Precautions for safe handling

See section 2 for further details. - [Prevention]:

7.2. Conditions for safe storage, including any incompatibilities

Use proper handling equipment.

Incompatible materials: Incompatible with glass, some metals, and chlorine solutions.

See section 2 for further details. - [Storage]:

7.3. Specific end use(s)

No data available.

8. Exposure controls and personal protection

8.1. Control parameters

Exposure

CAS No.	Ingredient	Source	Value
0000062-73-7	Phosphoric acid, 2,2-dichloroethenyl dimethyl ester	OSHA	TWA 1 mg/m ³ [skin]
		ACGIH	TWA: 0.1 mg/m ³ Skin, S, 2B
		NIOSH	TWA 1 mg/m ³ [skin]
		Supplier	No Established Limit
0000078-80-8	Isopropenyl acetylene	OSHA	No Established Limit
		ACGIH	No Established Limit
		NIOSH	No Established Limit
		Supplier	No Established Limit
0002698-41-1	CHLOROBENZYLIDENE MALONITRILE	OSHA	TWA 0.05 ppm (0.4 mg/m ³)
		ACGIH	Ceiling: 0.05 ppmSkin
		NIOSH	C 0.05 ppm (0.4 mg/m ³) [skin]
		Supplier	No Established Limit
0007647-01-0	Hydrochloric acid	OSHA	C 5 ppm (7 mg/m ³)
		ACGIH	Ceiling: 2 ppmRevised 2003,
		NIOSH	C 5 ppm (7 mg/m ³)
		Supplier	No Established Limit
0012125-01-8	Ammonium fluoride.	OSHA	No Established Limit
		ACGIH	No Established Limit
		NIOSH	No Established Limit
		Supplier	No Established Limit

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Carcinogen Data

CAS No.	Ingredient	Source	Value
0000062-73-7	Phosphoric acid, 2,2-dichloroethenyl dimethyl ester	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: Yes; Group 3: No; Group 4: No;
0000078-80-8	Isopropenyl acetylene	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;
0002698-41-1	CHLOROBENZYLIDENE MALONITRILE	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;
0007647-01-0	Hydrochloric acid	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: Yes; Group 4: No;
0012125-01-8	Ammonium fluoride.	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;

8.2. Exposure controls

Respiratory	Use OSHA-approved respirator.
Eyes	Use acid goggles.
Skin	Use neoprene or rubber gloves.
Engineering Controls	Use local exhaust.
Other Work Practices	Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

See section 2 for further details. - [Prevention]:

9. Physical and chemical properties

Appearance	Orange Liquid
Odor	Acidic Odor
Odor threshold	Not determined
pH	Not Measured
Melting point / freezing point	Not Measured
Initial boiling point and boiling range	100°C
Flash Point	Not Measured
Evaporation rate (Ether = 1)	Same as Water (1.0)
Flammability (solid, gas)	Not Applicable
Upper/lower flammability or explosive limits	Not Measured
Vapor pressure (Pa)	Not Measured
Vapor Density	Not Measured
Specific Gravity	1.25



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Solubility in Water	Complete
Partition coefficient n-octanol/water (Log Kow)	Not Measured
Auto-ignition temperature	Not Measured
Decomposition temperature	Not Measured
Viscosity (cSt)	Not Measured

9.2. Other information

No other relevant information.

10. Stability and reactivity

10.1. Reactivity

Hazardous Polymerization will not occur.

10.2. Chemical stability

Stable under normal circumstances.

10.3. Possibility of hazardous reactions

Reacts with metals. May release hydrogen gas.

10.4. Conditions to avoid

No data available.

10.5. Incompatible materials

Incompatible with glass, some metals, and chlorine solutions.

10.6. Hazardous decomposition products

No hazardous decomposition data available.

11. Toxicological information

Acute toxicity

Ingredient	Oral LD50, mg/kg	Skin LD50, mg/kg	Inhalation Vapor LC50, mg/L/4hr	Inhalation Dust/Mist LC50, mg/L/4hr	Inhalation Gas LC50, ppm
Phosphoric acid, 2,2-dichloroethenyl dimethyl ester - (62-73-7)	No data available	No data available	No data available	No data available	No data available
Hydrochloric acid - (7647-01-0)	900.00, Rabbit - Category: 4	5,010.00, Rabbit - Category: NA	781.00, Mouse - Category: NA	No data available	3,124.00, Rat - Category: 4
Isopropenyl acetylene - (78-80-8)	No data available	No data available	No data available	No data available	No data available
Ammonium fluoride. - (12125-01-8)	No data available	No data available	No data available	No data available	No data available
CHLOROBENZYLIDENE MALONITRILE - (2698-41-1)	No data available	No data available	No data available	No data available	No data available

Note: When no route specific LD50 data is available for an acute toxin, the converted acute toxicity point estimate was used in the calculation of the product's ATE (Acute Toxicity Estimate).

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Classification	Category	Hazard Description
Acute toxicity (oral)	4	Harmful if swallowed.
Acute toxicity (dermal)	5	May be harmful in contact with skin. (Not adopted by US OSHA)
Acute toxicity (inhalation)	3	Toxic if inhaled.
Skin corrosion/irritation	1A	Causes severe skin burns and eye damage.
Serious eye damage/irritation	1	Causes serious eye damage.
Respiratory sensitization	---	Not Applicable
Skin sensitization	1	May cause an allergic skin reaction.
Germ cell mutagenicity	---	Not Applicable
Carcinogenicity	---	Not Applicable
Reproductive toxicity	---	Not Applicable
STOT-single exposure	---	Not Applicable
STOT-repeated exposure	---	Not Applicable
Aspiration hazard	---	Not Applicable

12. Ecological information

12.1. Toxicity

Very toxic to aquatic life with long lasting effects.

No additional information provided for this product. See Section 3 for chemical specific data.

Aquatic Ecotoxicity

Ingredient	96 hr LC50 fish, mg/l	48 hr EC50 crustacea, mg/l	ErC50 algae, mg/l
Phosphoric acid, 2,2-dichloroethenyl dimethyl ester - (62-73-7)	Not Available	Not Available	Not Available
Hydrochloric acid - (7647-01-0)	282.00, Gambusia affinis	260.00, Crangon crangon	Not Available
Isopropenyl acetylene - (78-80-8)	Not Available	Not Available	Not Available
Ammonium fluoride. - (12125-01-8)	Not Available	Not Available	Not Available
CHLOROBENZYLIDENE MALONITRILE - (2698-41-1)	Not Available	Not Available	Not Available

12.2. Persistence and degradability

There is no data available on the preparation itself.

12.3. Bioaccumulative potential

Not Measured

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

This product contains no PBT/vPvB chemicals.

12.6. Other adverse effects

No data available.

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13. Disposal considerations

13.1. Waste treatment methods

Observe all federal, state and local regulations when disposing of this substance.

14. Transport information

	DOT (Domestic Surface Transportation)	IMO / IMDG (Ocean Transportation)	ICAO/IATA
14.1. UN number	UN1760	UN1760	UN1760
14.2. UN proper shipping name	UN1760, Corrosive liquids, n.o.s., (Contains Orthophosphoric Acid), 8, III	Corrosive liquids, n.o.s., (Contains Orthophosphoric Acid)	Corrosive liquids, n.o.s., (Contains Orthophosphoric Acid)
14.3. Transport hazard class(es)	DOT Hazard Class: 8	IMDG: 8 Sub Class: Not Applicable	Air Class: 8
14.4. Pack.Group	III	III	III
14.5. Environmental hazards	IMDG Marine Pollutant: Yes (Phosphoric acid, 2,2-dichloroethenyl dimethyl ester)		
14.6. Special precautions for user	No further information		

15. Regulatory information

Regulatory Overview	The regulatory data in Section 15 is not intended to be all-inclusive, only selected regulations are represented.
Toxic Substance Control Act (TSCA)	All components of this material are either listed or exempt from listing on the TSCA Inventory.
WHMIS Classification	D1B E
US EPA Tier II Hazards	Fire: No Sudden Release of Pressure: No Reactive: No Immediate (Acute): Yes Delayed (Chronic): No
EPCRA 311/312 Chemicals and RQs (lbs):	Ammonium fluoride. (100.00) Hydrochloric acid (5,000.00) Phosphoric acid, 2,2-dichloroethenyl dimethyl ester (10.00)
EPCRA 302 Extremely Hazardous:	Hydrochloric acid Phosphoric acid, 2,2-dichloroethenyl dimethyl ester
EPCRA 313 Toxic Chemicals:	Hydrochloric acid Phosphoric acid, 2,2-dichloroethenyl dimethyl ester
Proposition 65 - Carcinogens (>0.0%):	Phosphoric acid, 2,2-dichloroethenyl dimethyl ester



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Proposition 65 - Developmental Toxins (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Female Repro Toxins (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Male Repro Toxins (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

New Jersey RTK Substances (>1%):

Ammonium fluoride.
CHLOROBENZYLIDENE MALONITRILE
Hydrochloric acid
Isopropenyl acetylene
Phosphoric acid, 2,2-dichloroethenyl dimethyl ester

Pennsylvania RTK Substances (>1%):

Ammonium fluoride.
CHLOROBENZYLIDENE MALONITRILE
Hydrochloric acid
Isopropenyl acetylene
Phosphoric acid, 2,2-dichloroethenyl dimethyl ester

16. Other information

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein. We accept no responsibility and disclaim all liability for any harmful effects which may be caused by exposure to our products. Customers/users of this product must comply with all applicable health and safety laws, regulations, and orders.

The full text of the phrases appearing in section 3 is:

H224 Extremely flammable liquid and vapor.
H301 Toxic if swallowed.
H302 Harmful if swallowed.
H304 May be fatal if swallowed and enters airways.
H311 Toxic in contact with skin.
H314 Causes severe skin burns and eye damage.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H330 Fatal if inhaled.
H331 Toxic if inhaled.
H332 Harmful if inhaled.
H334 May cause allergic or asthmatic symptoms or breathing difficulties if inhaled.
H335 May cause respiratory irritation.
H400 Very toxic to aquatic life.

We cannot anticipate all conditions under which this information and our products, or the products of other manufacturers in combination with our products may be used. We accept no responsibility for results obtained by the application of this information or the safety and suitability of our products, either alone or in combination with other products. Users are advised to make their own tests to determine the safety and suitability of each product or product combination for their own purposes. Unless otherwise obtained in writing, we sell the products without warranty, and buyers and users assume all responsibility and liability for loss or damage arising from handling and use of our products, whether used alone or in combination with other products.

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