



Safety Data Sheet

Liquid Rust Sour

SDS Revision Date:

05/19/2015

1. Identification

1.1. Product identifier

Product Identity

Liquid Rust Sour

Alternate Names

Liquid Rust Sour

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

Intended use

See Technical Data Sheet.

Application Method

See Technical Data Sheet.

1.3. Details of the supplier of the safety data sheet

Company Name

Gurtler Industries, Inc.
15475 South LaSalle St.
South Holland, IL 60473 US

Emergency

24 hour Emergency Telephone No.

(708) 331-2550

Customer Service: Gurtler Industries, Inc.

INFOTRAC - (800) 535-5053

2. Hazard(s) identification

2.1. Classification of the substance or mixture

Acute Tox. 4;H302

Harmful if swallowed.

Acute Tox. 4;H312

Harmful in contact with skin.

Skin Corr. 1B;H314

Causes severe skin burns and eye damage.

Eye Dam. 1;H318

Causes serious eye damage.

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.

H312 Harmful in contact with skin.

H314 Causes severe skin burns and eye damage.

H318 Causes serious eye damage.



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[Prevention]:

- P260 Do not breathe mist / vapors / spray.
P264 Wash thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
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 continuously 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.
P322 Specific measures (see information on this label).
P330 Rinse mouth.
P331 Do NOT induce vomiting.
P340 Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P363 Wash contaminated clothing before reuse.

[Storage]:

- P405 Store locked up.

[Disposal]:

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

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
Fluorosilicic acid CAS Number: 0016961-83-4	10 - 25	Skin Corr. 1B;H314 Acute Tox. 4;H302 Acute Tox. 3;H311 Eye Dam. 1;H318 Aquatic Chronic 3;H412	[1]
Ammonium bifluoride CAS Number: 0001341-49-7	1.0 - 10	Acute Tox. 3;H301 Skin Corr. 1B;H314	[1]

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.



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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	If symptoms develop, move victim to fresh air. If symptoms persist, obtain medical attention. If breathing has stopped, trained personnel should administer CPR immediately.
Eyes	Flush with cool water. Remove contact lenses, if applicable, and continue flushing for at least 15 minutes. Obtain medical attention.
Skin	<p>A. Immediately remove contaminated clothing and continually flush exposed areas of skin with large volumes of water. Rinsing may be limited to 5 minutes if 0.13% benzalkonium chloride solution or 2.5% calcium gluconate gel is available, with the soaks or gel applied as soon as the rinsing is stopped. If not available, rinsing must continue until medical treatment is rendered.</p> <p>B. Immediately after thorough washing, use one of the measures below:</p> <p>1. Begin soaking the affected areas in iced 0.13% benzalkonium chloride solution. Use ice cubes, not shaved ice, in order to prevent frostbite. If immersion is not practical, towels should be soaked with iced 0.13% benzalkonium chloride solution and used as compresses for the burned area. Compresses should be changed every 2 to 3 minutes. Soaks or compresses should be continued until pain is relieved or until more definitive medical treatment is provided. Relief of the pain is an indication of the success of treatment; therefore, local anesthetics should be avoided. It is recommended the applier wear chemical protective gloves (e.g. butyl rubber gloves).</p> <p>2. Gently massage a liberal quantity of calcium gluconate 2.5% gel - commercial preparation, 'HF Antidote Gel' if available or prepare at site by adding 10 mL of 10% calcium gluconate injectable solution to 30 mL of KY jelly or Muko other water soluble gels also suitable. (Note: Taro Gel is physically incompatible with calcium gluconate and must not be used. Do not use calcium chloride as it causes skin necrosis). Apply gel every 15 minutes and massage continuously until pain subsides and/or redness disappears or until medical attention becomes available. It is recommended the applier wear chemical protective gloves, (e.g. butyl rubber gloves). Obtain medical advice immediately.</p>
Ingestion	Obtain medical attention immediately. Do not induce vomiting. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration. Never give anything by mouth if victim is unconscious, or is convulsing.

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

Overview	TOXIC CAUSES EYE BURNS CAUSES SKIN BURNS May cause chronic toxic effects.
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Routes of Exposure: Eye, Skin contact, Inhalation, Ingestion.

Inhalation: This product may be fatal if it is inhaled. May cause respiratory tract irritation or chemical burns.

Skin: Causes chemical burns.

Eyes: Causes chemical burns. May cause blindness.



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Ingestion: Harmful if swallowed. Causes chemical burns to mouth, throat and stomach.

Target organs: Bone. Eyes. Skin. Respiratory system. Kidney.

Chronic effects: Prolonged or repeated exposure can cause drying, defatting and dermatitis. Chronic exposure to fluorides may cause mottling of teeth and bone damage.

Signs and symptoms: Symptoms are prostration, gasping, pallor, and uncoordinated movements. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting. The product causes burns of eyes, skin and mucous membranes.

See section 2 for further details.

Eyes

Causes serious eye damage.

Skin

Harmful in contact with skin. Causes severe skin burns and eye damage.

Ingestion

Harmful if swallowed.

5. Fire-fighting measures

5.1. Extinguishing media

Treat for surrounding material.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition: Oxides of carbon, hydrogen fluoride, and oxides of nitrogen.

Do not breathe mist / vapors / spray.

5.3. Advice for fire-fighters

Firefighters should wear full protective clothing including self-contained breathing apparatus.

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).

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

Personal precautions: Keep unnecessary personnel away. Do not touch or walk through spilled material. Do not touch damaged containers or spilled material unless wearing appropriate protective space clothing. Keep people away from and upwind of spill/leak.

Environmental precautions: Do not discharge into lakes, streams, ponds or public waters.

Methods for containment: Stop leak if you can do so without risk. Prevent entry into waterways, sewers, basements or confined areas.



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Methods for cleaning up: Before attempting clean up, refer to hazard data given above. Small spills may be absorbed with non-reactive absorbent and placed in suitable, covered, labeled containers. Prevent large spills from entering sewers or waterways. Contact emergency services and supplier for advice. Never return spills to original containers for re-use.

7. Handling and storage

7.1. Precautions for safe handling

Use good industrial hygiene practices in handling this material. Keep from contact with clothing and other combustible materials. Keep container closed. Use only with adequate ventilation. Do not breathe dust from this material. Avoid prolonged or repeated skin contact with this material. Wash thoroughly after handling. Do not get in eyes, on skin or on clothing. Keep container tightly closed.

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

7.2. Conditions for safe storage, including any incompatibilities

Handle containers carefully to prevent damage and spillage.

Store in a tightly closed container in a cool, dry, well-ventilated and dark place away from incompatible materials. Protect from moisture.

Incompatible materials: Caustics, oxidizers, reducing agents, and organic materials. Corrosive to metals.

Keep out of reach of children. Keep away from heat, open flames or other sources of ignition.

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
0001341-49-7	Ammonium bifluoride	OSHA	No Established Limit
		ACGIH	No Established Limit
		NIOSH	No Established Limit
		Supplier	No Established Limit
0016961-83-4	Fluorosilicic acid	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
0001341-49-7	Ammonium bifluoride	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;
0016961-83-4	Fluorosilicic acid	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

Avoid breathing mists or vapors. Use only under good ventilation conditions or with respiratory protection. Where exposure guideline levels may be exceeded, use an approved NIOSH respirator. Respirator should be selected by and used under the direction of a trained health and safety professional following requirements found in OSHA's respirator standard (29 CFR 1910.134), CAN/CSA-Z94.4 and ANSI's standard for respiratory protection (Z88.2).

Eyes

Chemical goggles/splash shield required.

Skin

Rubber apron recommended. Coveralls to prevent skin contact. If clothing or footwear becomes contaminated with the product, remove it immediately and completely decontaminate it before re-use, or discard it. Wear rubber gloves.

Engineering Controls

Provide adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and any vapor below occupational exposure limits suitable respiratory protection must be worn.

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

Transparent Red/Pink Liquid

Odor

Odor threshold

Not determined

pH

2.59 (1%)

Melting point / freezing point

Not Measured

Initial boiling point and boiling range

219F (103.88C)

Flash Point

> 212F (> 100C)

Evaporation rate (Ether = 1)

Not Measured

Flammability (solid, gas)

Not Applicable

Upper/lower flammability or explosive limits

Lower Explosive Limit: Not Measured

Upper Explosive Limit: Not Measured

Vapor pressure (Pa)

Not Measured



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Vapor Density	Not Measured
Specific Gravity	1.095 +/- 0.010
Solubility in Water	Complete
Partition coefficient n-octanol/water (Log Kow)	Not Measured
Auto-ignition temperature	Not Measured
Decomposition temperature	Not Measured
Viscosity (cSt)	< 25 cPs, Water thin

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

Strong Oxidizers

10.4. Conditions to avoid

Do not mix with other chemicals.

10.5. Incompatible materials

Caustics, oxidizers, reducing agents, organic materials. Corrosive to metals.

10.6. Hazardous decomposition products

Oxides of carbon, hydrogen fluoride, and oxides of nitrogen.

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
Fluorosilicic acid - (16961-83-4)	125.00, Rat - Category: 3	140.00, Frog - Category: 2	210.00, Rat - Category: NA	No data available	No data available
Ammonium bifluoride - (1341-49-7)	147.00, Rat - Category: 3	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)	4	Harmful in contact with skin.
Acute toxicity (inhalation)	---	Not Applicable
Skin corrosion/irritation	1B	Causes severe skin burns and eye damage.
Serious eye damage/irritation	1	Causes serious eye damage.
Respiratory sensitization	---	Not Applicable
Skin sensitization	---	Not Applicable
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

The preparation has been assessed following the conventional method of the Dangerous Preparations Directive 1999/45/EC and GHS and is not classified as dangerous for the environment, but contains substance(s) dangerous for the environment. See section 3 for details

Aquatic Ecotoxicity

Ingredient	96 hr LC50 fish, mg/l	48 hr EC50 crustacea, mg/l	ErC50 algae, mg/l
Fluorosilicic acid - (16961-83-4)	28.70, Pimephales promelas	97.00, Daphnia magna	43.00 (96 hr), Scenedesmus acutus
Ammonium bifluoride - (1341-49-7)	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	UN3264	UN3264	UN3264
14.2. UN proper shipping name	UN3264, Corrosive liquid, acidic, inorganic, n.o.s., (Hydrofluorosilicic Acid), 8, II	Corrosive liquid, acidic, inorganic, n.o.s., (Hydrofluorosilicic Acid)	Corrosive liquid, acidic, inorganic, n.o.s., (Hydrofluorosilicic Acid)
14.3. Transport hazard class(es)	DOT Hazard Class: 8	IMDG: 8 Sub Class: Not Applicable	Air Class: 8
14.4. Packing group	II	II	II
14.5. Environmental hazards			
IMDG	Marine Pollutant: No		
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	D2B E		
US EPA Tier II Hazards	<div>Fire: No</div> <div>Sudden Release of Pressure: No</div> <div>Reactive: No</div> <div>Immediate (Acute): Yes</div> <div>Delayed (Chronic): No</div>		
EPCRA 311/312 Chemicals and RQs (lbs):	Ammonium bifluoride (100.00)		
EPCRA 302 Extremely Hazardous:	To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.		
EPCRA 313 Toxic Chemicals:			



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

Proposition 65 - Carcinogens (>0.0%):

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

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 bifluoride

Fluorosilicic acid

Pennsylvania RTK Substances (>1%):

Ammonium bifluoride

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:

H301 Toxic if swallowed.

H302 Harmful if swallowed.

H311 Toxic in contact with skin.

H314 Causes severe skin burns and eye damage.

H318 Causes serious eye damage.

H412 Harmful to aquatic life with long lasting effects.

This is the first version in the GHS SDS format. Listings of changes from previous versions in other formats are not applicable.

Information contained herein was obtained from sources considered technically accurate and reliable. While every effort has been made to ensure full disclosure of product hazards, in some cases data is not available and is so stated. Since conditions of actual product use are beyond control of the supplier, it is assumed that users of this material have been fully trained according to the requirements of all applicable legislation and regulatory instruments. No warranty, expressed or implied, is made and supplier will not be liable for any losses, injuries or consequential damages which may result from the use of or reliance on any information contained in this document.

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