

Safety Data Sheet

COM KOIL

SDS Revision Date:

1/30/2023



1. Identification

1.1. Product identifier

Product Identity

COM KOIL

Alternate Names

90-151, Blended Formula, Com Koil Heavy Duty Acid Based External Condenser Coil Cleaner & Brightener- (Pink)- 5 gallon

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

Intended use

It is used as super concentrated acid based external condenser coil cleaner & brightener.

Application Method

Read all precautions and instructions carefully before and after use.

1.3. Details of the supplier of the safety data sheet

Company Name

ComStar International Inc.
20-47 128th Street,
College Point, NY 11356

Telephone No.

718-445-7900
800-328-0142
Fax: 718-353-5998

Emergency 24 HR response No: 1-800-424-9300 & 703-527-3887 CHEMTREC

Note: The CHEMTREC phone number is only for emergencies involving spills, leaks, fire, exposure or accident. Please direct all other inquiries to our customer service phone number.

2. Hazard(s) identification

Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.120)

2.1. Classification of the substance or mixture

Corrosive to metals category 1; H290
Acute oral toxicity category 2; H300
Acute dermal toxicity category 1; H310
Skin Corrosion/Irritation category 1 A; H314
Serious Eye Damage/Eye Irritation Category 1; H318
Acute Inhalation Toxicity – Vapors category 2; H330
Specific target organ toxicity (single exposure) category 3; H335
Target Organs - Respiratory system

2.2. Label elements

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

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SIGNAL WORD

Warning

Hazard Statements

H290 May be corrosive to metals

H300 Fatal if swallowed

H310 Fatal in contact with skin

H314 Causes severe skin burns and eye damage

H318 Causes serious eye damage

H330 Fatal if inhaled

H335 May cause respiratory irritation

Precautionary Statements

[Prevention]:

Wash face, hands, and any exposed skin thoroughly after handling

Do not eat, drink, or smoke when using this product

Do not get in eyes, on skin, or on clothing

Wear protective gloves/protective clothing/eye protection/face protection

Do not breathe dust/fume/gas/mist/vapors/spray

Use only outdoors or in a well-ventilated area

Wear respiratory protection

Keep only in original container

[Response]:

Immediately call a poison center or doctor/physician

Inhalation

If inhaled: Remove victim to fresh air and keep at rest in a position comfortable for breathing

Skin

Wash contaminated clothing before reuse

If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower

Eyes

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Ingestion

Rinse mouth

Do not induce vomiting

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Spills

Absorb spillage to prevent material damage

Storage

Store locked up

Store in a well-ventilated place. Keep container tightly closed

Store in corrosive resistant polypropylene container with a resistant in liner

Store in a dry place

Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

None identified

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
HYDROFLUORIC ACID CAS#: 7664-39-3	<40	May be corrosive to metals. 1; H290 Acute oral toxicity category 2; H300 Acute dermal toxicity category 1; H310 Skin Corrosion/Irritation category 1 A; H314 Serious Eye Damage/Eye Irritation Category 1; H318 Acute Inhalation Toxicity – Vapors category 2; H330 Specific target organ toxicity (single exposure) category 3; H335 Target Organs - Respiratory system	
PHOSPHORIC ACID CAS#: 7664-38-2	>20	Skin Corr. 1B, H314 Eye Dam. 1, H318	
SURFACTANT CAS#: 9016-45-9	<10	Skin Corrosion/Irritation: 3 Eye Damage/Irritation: 2B	
WATER CAS#: N/A	Balance	Not Classified	

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.

*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	Immediate and specialized first aid and medical treatment is required. Speed is of the essence. Flush with plenty of water immediately. Continue flushing during transport to hospital or medical center.
Inhalation	If not breathing, give artificial respiration. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Remove to fresh air. Immediate medical attention is required. A nebulized solution of 2.5% Calcium gluconate may be administered with Oxygen by inhalation
Eyes	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
Skin	Wash off immediately with plenty of water for at least 15 minutes. Immediate medical attention is required. Dermal burns may be treated with calcium gluconate gel or slurry in water or glycerin. This compound binds the active fluorides in an insoluble form and limits burn extension and pain. Soaking or immersion with iced 0.13% Benzalkonium chloride solution may be used for skin burns and should be continued until the pain is relieved. Do not use in eyes.
Ingestion	Do not induce vomiting. Call a physician or poison control center immediately.

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

Overview	Causes burns by all exposure routes. Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated: Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation
Notes to Physician	Treat symptomatically

5. Fire-fighting measures

Suitable Extinguishing Media: Water spray, carbon dioxide (CO₂), dry chemical, alcohol-resistant foam.

Unsuitable Extinguishing Media: No information available

Flash Point: No information available

Method: No information available

Autoignition Temperature: No information available

Explosion Limits:

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Upper: No data available

Lower: No data available

Sensitivity to Mechanical Impact: No information available

Sensitivity to Static Discharge: No information available

Specific Hazards Arising from the Chemical:

The product causes burns of eyes, skin, and mucous membranes. Thermal decomposition can lead to release of irritating gases and vapors.

Hazardous Combustion Products:

Gaseous hydrogen fluoride (HF).

Protective Equipment and Precautions for Firefighters:

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Thermal decomposition can lead to release of irritating gases and vapors.

NFPA

Health	Flammability	Instability	Physical hazards
4	0	1	N/A

6. Accidental release measures

6.1. Personal precautions, protective equipment, and emergency procedures

Use personal protective equipment as required. Ensure adequate ventilation. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

6.2. Environmental precautions

Should not be released into the environment.

6.3. Methods and material for containment and cleaning up

Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

7. Handling and storage

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7.1. Precautions for safe handling

Wear personal protective equipment/face protection. Do not get in eyes, on skin, or on clothing. Use only under a chemical fume hood. Do not breathe mist/vapors/spray. Do not ingest. If swallowed then seek immediate medical assistance.

7.2. Conditions for safe storage, including any incompatibilities

Keep containers tightly closed in a dry, cool, and well-ventilated place. Corrosives area. Do not store in metal containers. Incompatible Materials. Metals. Cyanides. Sulfides. Bases. Fluorine.

8. Exposure controls and personal protection

8.1. Control parameters

Exposure

CAS No.	Ingredient	Source	Value
7664-39-3	HYDROFLUORIC ACID	OSHA PEL	(Vacated) TWA: 3 ppm (Vacated) TWA: 2.5 mg/m ³ (Vacated) STEL: 6 ppm TWA: 3 ppm
		ACGIH TLV	TWA: 0.5 ppm TWA: 2.5 mg/m ³ Ceiling: 2 ppm Skin
		NIOSH IDLH	IDLH: 30 ppm IDLH: 250 mg/m ³ TWA: 3 ppm TWA: 2.5 mg/m ³ Ceiling: 6 ppm Ceiling: 5 mg/m ³
		Mexico OEL (TWA)	TWA: 0.5 ppm TWA: 2.5mg/m ³ Ceiling: 2 ppm
7664-38-2	PHOSPHORIC ACID	OSHA	1 mg/m ³
		ACGIH	1 mg/m ³
		NIOSH	No Established Limit
		Mexico OEL (TWA)	No Established Limit
9016-45-9	SURFACTANT	OSHA	150 ppm
		ACGIH	150 ppm
		NIOSH	No Established Limit
		Mexico OEL (TWA)	No Established Limit

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N/A	WATER	OSHA	No Established Limit
		ACGIH	No Established Limit
		NIOSH	No Established Limit
		Mexico OEL (TWA)	No Established Limit

Carcinogen Data

CAS No.	Ingredient	Source	Value
7664-39-3	HYDROFLUORIC 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;
7664-38-2	PHOSPHORIC 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;
9016-45-9	SURFACTANT	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;
N/A	WATER	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;

Legend

ACGIH - American Conference of Governmental Industrial Hygienists

OSHA - Occupational Safety and Health Administration

NIOSH IDLH: NIOSH - National Institute for Occupational Safety and Health

8.2. Exposure controls

Respiratory

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirators if exposure limits are exceeded or if irritation or other symptoms are experienced.

Eyes/face protection

Tightly fitting safety goggles. Face protection shield

Skin and body protection

Wear appropriate protective gloves and clothing to prevent skin exposure.

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Engineering Controls	Use only under a chemical fume hood. Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the work station location.
Hygiene Measures	Handle in accordance with good industrial hygiene and safety practice.

9. Physical and chemical properties

Appearance	Pink Liquid
Odor	Sharp
Odor threshold	No information available
pH	<1.0
Melting point / freezing point	-35 °C / -31 °F
Initial boiling point and boiling range	105 °C / 221 °F
Flash Point	No information available
Evaporation rate (Ether = 1)	No information available
Flammability (solid, gas)	Not Applicable
Upper/lower flammability or explosive limits	Lower Explosive Limit: No data available Upper Explosive Limit: No data available
Vapor pressure (Pa)	No information available
Vapor Density	2.21
Specific Gravity	1.15-1.20
Solubility in Water	miscible
Partition coefficient n-octanol/water (Log Kow)	No data available
Auto-ignition temperature	No information available
Decomposition temperature	No information available
Viscosity (cSt)	No information available
Molecular Formula	H F
Molecular Weight	20
9.2. Other information	No other relevant information.

10. Stability and reactivity

10.1. Reactivity

None known, based on information available

10.2. Chemical stability

Stable under normal circumstances.

10.3. Possibility of hazardous reactions

Corrosive to metals. Contact with metals may evolve flammable hydrogen gas.

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10.4. Conditions to avoid

Incompatible products. Excess heat.

10.5. Incompatible materials

Metals, Cyanides, Sulfides, Bases, Fluorine

10.6. Hazardous decomposition products

Gaseous hydrogen fluoride (HF)

10.7. Hazardous Polymerization

Hazardous polymerization does not occur.

11. Toxicological information

Acute Toxicity

Product Information

Oral LD50 Category 2. ATE = 5 - 50 mg/kg.
Dermal LD50 Category 1. ATE < 50 mg/kg.
Vapor LC50 Category 2. ATE = 0.5 - 2 mg/l.

Ingredient	LD50, ORAL	LD50, DERMAL	LC50, INHALATION
HYDROFLUORIC ACID (7664-39-3)	No data available	No data available	LC50 =0.79 mg/L(Rat)1 h
PHOSPHORIC ACID (7664-38-2)	1530 mg/kg Rat	2730 mg/kg Rabbit	No data available
SURFACTANT (9016-45-9)	1310 mg/kg;	2000 mg/kg	No data available
WATER (N/A)	No data available	No data available	No data available

Toxicologically Synergistic Products No information available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Irritation Causes severe burns by all exposure routes

Sensitization No information available

Carcinogenicity

The table below indicates whether each agency has listed any ingredient as a carcinogen.

Component	CAS No	IARC	NTP	ACGIH	OSHA	Mexico
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HYDROFLUORIC ACID	7664-39-3	Not listed	Not listed	Not listed	Not listed	Not listed
PHOSPHORIC ACID	7664-38-2	Not listed	Not listed	Not listed	Not listed	Not listed
SURFACTANT	9016-45-9	Not listed	Not listed	Not listed	Not listed	Not listed
Water	N/A	Not listed	Not listed	Not listed	Not listed	Not listed

Mutagenic Effects	No information available
Reproductive Effects	No information available
Developmental Effects	No information available
Teratogenicity	No information available
STOT - single exposure	Respiratory system
STOT - repeated exposure	None known
Aspiration hazard	No information available

Symptoms / effects, both acute and delayed

Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated: Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation

Endocrine Disruptor Information

Other Adverse Effects

The toxicological properties have not been fully investigated.

12. Ecological information

12.1. Ecotoxicity

Do not empty into drains.

Aquatic Ecotoxicity

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
HYDROFLUORIC ACID (7664-39-3)	Not Listed	LC50 = 660 mg/L, 48	Not Listed	EC50 = 270 mg/L, 48h(Daphnia species)
PHOSPHORIC ACID (7664-38-2)	138 mg/l	Not Available	Not Available	Not Available
SURFACTANT (9016-45-9)	Not Available	Not Available	Not Available	Not Available
WATER (N/A)	Not Available	Not Available	Not Available	Not Available

12.2. Persistence and degradability

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Soluble in water Persistence is unlikely based on information available. Miscible with water

12.3. Bioaccumulative potential

No information available.

12.4. Mobility in soil

Will likely be mobile in the environment due to its water solubility.

12.5. Results of PBT and vPvB assessment

This product contains no PBT/vPvB chemicals.

12.6. Other adverse effects

No data available.

Component	log Pow
HYDROFLUORIC ACID (7664-39-3)	-1.4
PHOSPHORIC ACID (7664-38-2)	--
SURFACTANT (9016-45-9)	--
WATER (N/A)	--

13. Disposal considerations

13.1. Waste treatment methods

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification

Component	RCRA - U Series Wastes	RCRA - P Series Wastes
Hydrogen fluoride - 7664-39-3	U134	--

14. Transport information

DOT

UN-No UN1790
Proper Shipping Name HYDROFLUORIC ACID
Hazard Class 8
Subsidiary Hazard Class 6.1
Packing Group II

TDG

UN-No UN1790
Proper Shipping Name HYDROFLUORIC ACID
Hazard Class 8

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Subsidiary Hazard Class 6.1
Packing Group II

IATA

UN-No UN1790
Proper Shipping Name HYDROFLUORIC ACID
Hazard Class 8
Subsidiary Hazard Class 6.1
Packing Group II

IMDG/IMO

UN-No UN1790
Proper Shipping Name HYDROFLUORIC ACID
Hazard Class 8
Subsidiary Hazard Class 6.1
Packing Group II

15. Regulatory information

United States of America Inventory

Component	CAS No	TSCA	TSCA Inventory notification - Active-Inactive	TSCA - EPA Regulatory Flags
HYDROFLUORIC ACID	7664-39-3	X	ACTIVE	--
PHOSPHORIC ACID	7664-38-2	X	X	--
SURFACTANT	9016-45-9	X	X	--
WATER	N/A	X	X	--

Legend:

TSCA US EPA (TSCA) - Toxic Substances Control Act, (40 CFR Part 710)

X - Listed

-- - Not Listed

TSCA 12(b) - Notices of Export Not applicable

International Inventories

Canada (DSL/NDSL), Europe (EINECS/ELINCS/NLP), Philippines (PICCS), Japan (ENCS), Japan (ISHL), Australia (AICS), China (IECSC), Korea(KECL).

Component	CAS No	DSL	NDSL	EINECS	PICCS	ENCS	ISHL	AICS	IECSC	KECL
HYDROFLUORIC ACID	7664-39-3	X	--	231-634-8	X	X	X	X	X	KE-20198
PHOSPHORIC ACID	7664-38-2	X	--	X	X	X	X	X	X	X

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SURFACTANT	9016-45-9	X	--	X	X	X	X	X	X	X
WATER	N/A	X	--	X	X	X	X	X	X	X

KECL - NIER number or KE number (<http://ncis.nier.go.kr/en/main.do>)

U.S. Federal Regulations

SARA 313

Component	CAS No	Weight%	SARA 313 – Threshold Values %
HYDROFLUORIC ACID	7664-39-3		1.0
PHOSPHORIC ACID	7664-38-2		X
SURFACTANT	9016-45-9		X
WATER	N/A		x

SARA 311/312 Hazard Categories See section 2 for more information

CWA(Clean Water Act)

Component	CWA - Hazardous Substances	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants
HYDROFLUORIC ACID	X	100 lb	--	--
PHOSPHORIC ACID	X	--	--	--
SURFACTANT	X	--	--	--
WATER	X	--	--	--

Clean Air Act

Component	HAPS Data	Class 1 Ozone Depletors	Class 2 Ozone Depletors
HYDROFLUORIC ACID	X	--	--
PHOSPHORIC ACID	X	--	--
SURFACTANT	X	--	--
WATER	X	--	--

OSHA - Occupational Safety and Health Administration Not applicable

Component	Specifically Regulated Chemicals	Specifically Regulated Chemicals
HYDROFLUORIC ACID	--	TQ: 1000 lb
PHOSPHORIC ACID	--	--
SURFACTANT	--	--
WATER	--	--

CERCLA This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

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Component	Hazardous Substances RQs	CERCLA EHS RQs
HYDROFLUORIC ACID	100 lb	100 lb
PHOSPHORIC ACID	--	--
SURFACTANT	--	--
WATER	--	--

California Proposition 65 This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

Component	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
HYDROFLUORIC ACID	X	X	X	X	X
PHOSPHORIC ACID	X	X	X	X	X
SURFACTANT	X	X	X	X	X
WATER	X	X	X	X	X

U.S. Department of Transportation

Reportable Quantity (RQ): Y
 DOT Marine Pollutant N
 DOT Severe Marine Pollutant N

U.S. Department of Homeland Security

This product contains the following DHS chemicals: Legend - STQs = Screening Threshold Quantities, APA = A placarded amount

Component	DHS Chemical Facility Anti-Terrorism Standard
HYDROFLUORIC ACID	Release STQs - 1000lb (concentration >=50%) Release STQs - 1000lb (anhydrous) Theft STQs - 45lb (anhydrous)
PHOSPHORIC ACID	--
SURFACTANT	--
WATER	--

Other International Regulations

Mexico – Grade No information available

Authorisation/Restrictions according to EU REACH

Component	REACH (1907/2006) - Annex XIV - Substances Subject to Authorization	REACH (1907/2006) - Annex XVII - Restrictions	REACH Regulation (EC1907/2006) article 59 - Candidate List of

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		on Certain Dangerous Substances	Substances of Very High Concern (SVHC)
HYDROFLUORIC ACID	--	Use restricted. See item 75. (see link for restriction details)	--
PHOSPHORIC ACID	--	--	--
SURFACTANT	--	--	--
WATER	--	--	--

Safety, health, and environmental regulations/legislation specific for the substance or mixture

Component	CAS No	OECD HPV	Persistent Organic Pollutant	Ozone Depletion Potential	Restriction of Hazardous Substances (RoHS)
HYDROFLUORIC ACID	7664-39-3	Listed	Not applicable	Not applicable	Not applicable
PHOSPHORIC ACID	7664-38-2	Listed	Not applicable	Not applicable	Not applicable
SURFACTANT	9016-45-9	Listed	Not applicable	Not applicable	Not applicable
WATER	N/A	Listed	Not applicable	Not applicable	Not applicable

Component	CAS No	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Major Accident Notification	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Safety Report Requirements	Rotterdam Convention (PIC)	Basel Convention (Hazardous Waste)
HYDROFLUORIC ACID	7664-39-3	Not applicable	Not applicable	Not applicable	Annex I - Y34
PHOSPHORIC ACID	7664-38-2	Not applicable	Not applicable	Not applicable	Not applicable
SURFACTANT	9016-45-9	Not applicable	Not applicable	Not applicable	Not applicable
WATER	N/A	Not applicable	Not applicable	Not applicable	Not applicable

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.

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The opinions expressed are those of qualified experts within ComStar International Inc. We believe that the information contained is current as of the date of the Safety Data Sheet. Since the use of this information and of these opinions and the conditions of the use of the product are not within the control of ComStar International Inc., it is the user's obligation to determine the conditions of safe use of the product.

End of Document