



AURORA MARINE INDUSTRIES INC.

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Material Safety Data Sheet

Alumabrite

Version No: 1 Revision Date: June 1, 2009

1. Identification of the preparation and company

Preparation/Product Name Alumabrite
Product Code 01240
Intended Use Aluminum & Stainless Steel Cleaner
Application Method Dilute, Spray, Rinse
Company Name Aurora Marine Industries Inc.
7015 Ordan Drive, Unit 11
Mississauga, Ontario
L5T 1Y2
Canada
Telephone No. 905-564-4995
Fax No. 905-564-4956
24 hour Emergency Telephone No.- 613-996-6666/^666(cellular)

2. Composition/Information on ingredients

This product contains the following substances that present health hazard

Component	CAS-No.	Weight %	LD50 (specie & route)
Hydrofluoric acid	7664-39-3	2%-4%	Vapour, Inhalation (4hr) rat-755mg/m ³ (1300PPM/1hr)
Sulphuric acid	7664-93-9	4%-6%	Vapour, Inhalation (4hr) rat-510mg/m ³ & oral, rat-2140mg/kg

3. Hazard Identification of the product

Hazard Summary **Caution! Very Corrosive**
Harmful if swallowed. Causes severe burns and eye damage.
Inhalation can cause respiratory system irritation.

Potential Health Effects

Primary Routes of Entry: Inhalation, Eye contact & Skin contact

Eye: Immediate pain, Can cause burns and corneal damage.

Skin: Corrosive! solution can cause burns to the skin.

Inhalation: Vapor or mist from solution can cause nasal irritation.

Ingestion: Harmful if swallowed, Causes irritation or corrosive burns to mouth, throat, esophagus and stomach.

4. First aid measures

General-In all cases of doubt or when symptom persists seek medical attention .

Inhalation-Move to fresh air

Eye Contact-Rinse immediately with plenty of water. Seek medical advise,

Skin Contact- Wash with soap & water.

Ingestion-Rinse mouth with water & drink 2-3 glass of water to dilute, only induce vomiting if directed by physicians. Seek medical advise,

5. Fire-fighting measures

Product is not flammable.

6. Accidental release measures

Ventilate the area.

Remove ignition source since hydrogen gas may be generated by reaction with metals.

absorb in inert absorbent & add soda ash or magnesium oxide & slaked lime.

Dispose of according to regulations.

Your attention is drawn to the disclaimer on the Product Data Sheet which with this Safety Data Sheet and the package labeling comprise an integral information system about this product. Copies of the Product Data Sheet are available from Aurora Marine on request or from our Internet site: www.auroramarine.com

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7. Handling and storage**Handling:** Take all precautions to avoid personal contact. Prevent release of vapor or mist into workplace air.

Always ensure adequate ventilation in handling areas.

In Storage-Store in cool dry area. out of direct sunlight and away from heat sources.**In Use-**Avoid skin & eye contact, Do not breath vapors or mist etc.**Storage-**Do not freeze, store in well ventilated area, keep container closed.**8. Exposure controls and personal protection****Engineering Controls:**

Ventilate Adequately. Use local exhaust or general room/dilution ,ventilation as appropriate to control employee exposer in the work place.

Exposure Limits

Exposure limits are listed below, if they exist

Component	CAS	OSHA PEL(TWA)	NIOSH REL	ACGIH Ceiling Exposure Limit (TLV-C)
Hydrofluoric acid	7664-39-3	3ppm (2.46mg/m ³)	6ppm(4.91mg/m ³)	3ppm (2.46mg/m ³)
Sulphuric acid	7664-93-9	1 mg/m ³	1 mg/m ³	1 mg/m ³

Respiratory Protection

Use air -purifying respirator.

Eye Protection -

Wear safty glasses or splash proof goggles.

Hand Protection -

Wear rubber or plastic gloves.

Skin Protection-

Wear safety clothing's, impervious to this material.

9. Physical and chemical properties

Physical State-	liquid
Color	Clear colorless
pH	1-2
Odor	Pungent
Flash Point (deg C)-.	NA
Viscosity (cSt)-	1.012cP
Specific Gravity(g/ml)	1.101
Vapor Density-	NA
Upper Explosive Limit-	NA
Lower Explosive Limit-	NA
Solubility in Water-	Yes
Freezing point-	<0°C

10. Stability and reactivity

Stable under recommended storage and handling conditions (see section 7).

Keep away from oxidizing agents, strongly alkaline and active metals in order to avoid possible exothermic reactions.

Do not heat , heating can yield toxic fumes of fluoride.

11. Toxicological information

Product can cause eye & skin burn, inhalation of vapors cause nasal irritation.

Ingestion causes irritation or corrosive burns to mouth, throat, esophagus and stomach.

12. Ecological information

There are no data available on the product itself.

13. Disposal considerations

Waste material must be disposed of in accordance with federal,state,provincial & local environmental control regulations.

Empty containers should be recycled or disposed of through an approved waste management facility.

When using information provided in this data sheet advice should be obtained from the Waste Regulation Authority, as to weather the special waste regulations apply.

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14. Transport information

Transport only in accordance with the following regulations:

	TDG-CLR	DOT	ICAO/IATA
Shipping Name	CONSUMER COMMODITY	CONSUMER COMMODITY ORM-D	Hydrofluoric acid & sulfuric acid solution
Hazard class/Division			8
Identification No.			UN 1760
Packaging Group			II
Marine Pollutant			No

Transportation classifications may vary by container volume and may be influenced by regional or country variations in regulations

15. Regulatory information

Canadian Classification

This product has been classified in accordance with the hazard criteria of the CPR (Controlled Products Regulations) and MSDS (Material Safety Data Sheet) contains all the information required by the CPR.

Controlled Products Regulations (WHMIS) Classification:

Class E – Corrosive

CEPA / Canadian Domestic Substances List (DSL): On the Canadian Domestic Substances List (CEPA/DSL)

USA Classification

TSCA Inventory:All components of this product are listed on USA TSCA inventory.

OSHA Classification: Hazardous by definition of Hazard Communication Standard (29 CFR § 1910.1200)

Sources Used for Information: Suppliers, ACGIH, CCOHS

16. Other information

National Fire Protection Association (NFPA) Rating

Hazardous Materials Identification System (HMIS) Rating

	NFPA	HMIS
HEALTH	3	3
FIRE	0	0
REACTIVITY	1	1
SPECIAL		

4 = Extreme/Severe
 3 = High/Serious
 2 = Moderate
 1 = Slight
 0 = Minimum
 W = Water Reactive

Legend

ACGIH	American Conference of Governmental Industrial Hygienists
OSHA	Occupational Safety and Health Administration
CCOHS	Canadian Centre for Occupational Health and Safety
PEL	Permissible Exposure Limit
REL	Recommended exposure limit
TLV	Threshold Limit Value
TWA	Time Weighted Average (TWA):
WHMIS	Workplace Hazardous Materials Information System
TDG CLR	Transport of Dangerous goods-Clear Language Regulations
DOT	Department of transportation
IATA	International Air transport Association
ICAO	The International Civil Aviation Organization
TSCA	Toxic Substances Control Act(Chemical Substance Inventory)
NA	Not Applicable
NE	Not Established
ND	Not Determined
EST	Estimated

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The information provided in this Material Safety Data Sheet has been obtained from sources believed to be reliable. The supplier provides no warranties express or implied and assumes no responsibility for the accuracy or the completeness of the data contained herein.