

Material Safety Data Sheet

Revision Date March 2, 2009	Prepared by Patti Rogers	Technical Information 1-800-201-8822 or support@mgchemicals.com
Head Office 9347 - 193 Street, Surrey, B.C., V4N 4E7		Emergency Phone Canutech (613) 996-6666 Collect 24 hrs

For updates please download from www.mgchemicals.com or fax requests to 1-800-708-9888

Section 1: Product Identification

MSDS Code: 41606

Name: Accelerator

Related Part Numbers: 41606-250ML

Use: In tank # 4 in the MG Electroless Copper-Plating System.

Section 2: Hazardous Ingredients

CAS#	Chemical Name	Percentage by weight	ACGIH TWA	Osha Pel	Osha Stel
16872-11-0	Fluoroboric Acid	23-25%	N/E	2 mg/m ³	N/E

Section 3: Hazards Identification

Eyes:	Causes eye irritation, pain, reddening and possibly blindness.
Skin:	May cause skin irritation, discomfort and chemicals burns.
Inhalation:	Causes respiratory tract irritation, coughing and sore throat.
Ingestion:	Causes gastrointestinal irritation with nausea, vomiting and diarrhea.
Chronic:	Repeated skin over exposure can result in dermatitis. Ingestion can cause fluoride poisoning and maybe fatal.

Section 4: First Aid Measure

Eyes:	Remove contact lenses. Flush with water. Get medical aid if irritation occurs or persist.
Skin:	Wash skin with soap and water. Get medical aid if symptoms persist.
Inhalation:	Immediately remove from exposure to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.
Ingestion:	Do not induce vomiting. Rinse mouth with water. If conscious, give 1-2 glasses of water. Get doctor immediately. Never give anything by mouth to an unconscious person.

Section 5: Fire Fighting Measures

Autoignition Temperature:	N/A	Flash Point:	N/A	LEL / UEL:	N/A
Extinguishing Media:	Water spray, Foam, Halon, Carbon Dioxide, Dry Chemical				
General Information:	If this product is involved in fire, fire run-off water should be contained to prevent possible environmental damage.				

Section 6: Accidental Release Measures

Spill Procedure:	Sweep dry material into a plastic container. Provide adequate ventilation. For diluted material, sprinkle absorbent compound onto spill, then sweep into a plastic container. Wipe up further residue with paper towel and place into container. Wash spill area with soap and water.
-------------------------	---

Section 7: Handling and Storage

Handling: Use eye, skin and clothing protection. Do not ingest or inhale. Do not expose container to heat. Diluted

product must be stored in a vented container as it will gas off and create pressure in a sealed container.

Storage: Store in a cool, dry, well-ventilated area, away from incompatible substances and where freezing is possible.

Section 8: Exposure Controls

Routes of entry: Eyes, ingestion, inhalation, and skin.
Ventilation: Use adequate general or local exhaust ventilation to keep airborne concentrations below exposure limits.
Personal Protection: Wear appropriate protective eyeglasses or chemical safety goggles. Wear rubber or neoprene protective clothing to prevent skin contact. Use a NIOSH approved respirator when necessary.

Section 9: Physical and Chemical Properties

Physical State:	Liquid	Odor:	Slight Acidic	Solubility in water:	100 %	Evaporation Rate:	Similar to water	
Boiling Point:	103°C	Specific Gravity:	1.18@25°C	Vapor Pressure:	18mmHg @30°C	Vapor Density:	Similar to water	pH: <1

Section 10: Stability and Reactivity

Stability: Stable at normal conditions and temperatures.
Conditions to avoid: Contact with incompatible materials.
Incompatibilities: This solution will react with strong bases, cyanide compounds and metals. This product is not compatible with water reactive materials.
Polymerization: Will not occur.
Decomposition: Hydrogen fluoride, boron oxides.

Section 11: Toxicological Information

Sensitization: (effects of repeated exposure)

Carcinogenicity: (risk of cancer)

Teratogenicity: (risk of malformation in an unborn fetus)

Reproductive Toxicity: (risk of sterility)

Mutagenicity: (risk of heritable genetic effects)

Lethal Exposure Concentrations:	Ingestion (LD50):	Inhalation (LC50):	Skin (LD50):	Inhalation (TCLo):
Fluoroboric Acid	100 mg/kg Rat	N/A	N/A	N/A

Section 12: Ecological Information

General Information: Avoid runoff into storms and sewers, which lead into waterways. Water runoff can cause environmental damage

Volatile Organic Compounds, % by weight: 0%

Volatile Organic Compounds, grams per litre: 0 g/L

Section 13: Disposal Information

General Information: Dispose of in accordance with all local, provincial, state, and federal regulations. Water runoff can cause environmental damage

Section 14: Transportation Information



Ground Canada: (1 Liter and smaller)

Classified as **Limited Quantity**. **MSDS must accompany each carton.**
Refer to TDG regulations (Canadian Transportation of Dangerous Goods regulations).
Recommend Shipper be trained and certified.

Ground USA: (1 Liter and smaller)

Classified as **Limited Quantity**. Refer to USA CFR 49 Regulations. **MSDS must accompany each carton.**
Meets **ORM-D** label requirements and dual marking is permissible.
Recommend Shipper be trained and certified.

Ground Canada and USA: (sizes over 1L)

Shipper must be trained and certified. Refer to CFR 49 (USA), and TDG regulations (Canada).
Shipping Name: **Fluoroboric Acid Solution**, UN number: **1775**, Class: **8**, Packing Group: **II**.
Recommend using original MG Chemicals UN Certified outer cartons. Tape all seams on the carton. Hazard Label required – CORROSIVE. A double arrow orientation label is required and is already printed on the original outer carton.

Air: (all sizes 1L or smaller)

Shipper must be trained and certified. Refer to IATA Dangerous Goods Regulations.
Shipping Name: **Fluoroboric Acid Solution**, UN number: **1775**, Class: **8**, Packing Group: **II**.
Recommend: **DO NOT SHIP BY AIR.**

Sea:

Shipper must be trained and certified. Refer to IMDG regulations.
Shipping Name: **Fluoroboric Acid Solution**, UN number: **1775**, Class: **8**, Packing Group: **II**.

Section 15: Regulatory Information

CANADA

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by the Controlled Products Regulations.

DSL

All ingredients in this product are listed on the Domestic Substances List

Health Canada

Products produced by MG Chemicals intended for retail display conform to the Canadian Consumer Labeling regulations.

Industry and Science Canada

MG Labels products intended for the workplace to conform to WHMIS labeling regulations. Product identification, net quantity declaration, minimum printing type size heights, and packaging of this product is in compliance.

WHMIS

This product belongs to the following categories: **D2B, E**

USA

CAA (Clean Air Act, USA)

This product does not contain any class 1-ozone depletors.

This product does not contain any class 2-ozone depletors.

This product does not contain any chemicals listed as hazardous air pollutants.

SARA (Superfund Amendments and Reauthorization Act of 1986, USA, 40 CFR 372.4)

This product does not contain toxic chemicals subject to the reporting requirements of section 313 of Title III of the superfund Amendments and Reauthorization Act of 1986 and 40 CFR part 372

EPCRA (Emergency Planning and Right to Know Act, USA, 40 CFR 372.45)

This product does not contain chemicals subject to the reporting requirements of section 313 Title III of the SARA of 1986 and 40 CFR part 372

TSCA (Toxic Substances Control Act of 1976, USA)

All substances are TSCA listed.

California Proposition 65 (Chemicals known to cause cancer or reproductive toxicity, May 1, 1997 revision, USA)

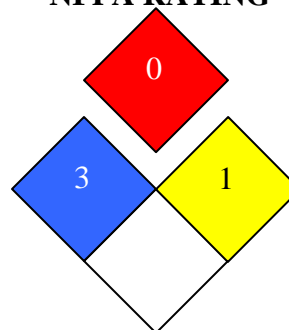
This product does not contain chemicals known to the state to cause reproductive toxicity or cancer.

HMIS RATING

HEALTH:	3
FLAMMABILITY:	0
PHYSICAL HAZARD:	1
PERSONAL PROTECTION: (PPE)	H

Protection=H (Splash goggles, gloves, protective apron and vapor respirator.)

NFPA RATING



EUROPE

RoHS

This product does not contain any lead, cadmium, mercury, hexavalent chromium, PBB's, or PBDE's, and complies with European RoHS regulations.

WEEE

This product is not a piece of electrical or electronics equipment, and is therefore not governed by this regulation.

Section 16: Other Information

Definitions: N/A = not applicable, N/E = not established

Disclaimer: This material safety data sheet is provided as an information resource only. M.G. Chemicals believes the information contained herein is accurate and compiled from reliable sources. It is the responsibility of the user to verify its validity. The buyer assumes all responsibility of using and handling the product in accordance with federal, state, and local regulations.