

# Material Safety Data Sheet

Product Name: Free Flo 34

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Manufactured by:  
Randall Industries, LLC  
4565 Hemlock Road  
Cherry Tree, PA 15724

## Section I

Emergency Phone Number: 1-800-535-5053  
Phone Number for Information: 1-814-743-6630  
MSDS Revision: Apr 30, 2004

## Section II - Hazardous Ingredients

Ingredient(s)	CAS No:	OSHA PEL	ACGIH TLV
Hydrogen Chloride	7647-01-0	5 ppm	5 ppm

HMIS: 101

NFPA: 101

N/A=Not Applicable N/D=Not Determined

## Section III - Physical / Chemical Data

Appearance:	Clear liquid	Solubility in Water:	100% Complete
Odor:	Fruity	Specific Gravity:	1.06 Water = 1
pH:	< 2	Vapor Pressure:	20 mm Hg
Boiling Point:	> 212 (> 100) °F (°C)	Vapor Density:	1.27 Air = 1
Melting Point:	N/D °F (°C)	Evaporation Rate:	N/D Butyl Acetate = 1

## Section IV - Fire And Explosion Hazards

Flash Point: None to IBP °F (°C) (CC) Flammable Limits: for hydrogen chloride LEL: none UEL: none

Extinguishing Media: Use water fog, foam, dry chemical or Carbon Dioxide.

Special Fire Fighting Procedures: Wear an approved self-contained breathing apparatus and protective clothing with full face piece operated in the positive pressure demand mode and full body protection.

Fire / Explosive Hazards: Can react with chemically reactive metals such as aluminum, zinc, magnesium, copper, etc. to release hydrogen gas which is combustible.

## Section V - Reactivity Data

Stability:  Stable  Unstable Hazardous Polymerization:  May occur  Will not occur

Incompatibility: Oxidizers, chlorates or highly flammable substances. Mixing with strong bases may produce high temperatures.

Hazardous Decomposition Products: Flammable Hydrogen gas when reacted with certain metals.

Conditions to Avoid: None known.

## Section VI - Health Hazard Data

Primary Routes of Entry:  Inhalation  Skin Contact  Ingestion

Health Hazards: Eyes: may cause irreversible damage.  
Skin: May cause burns with prolonged exposure.  
Inhalation: may cause damage to mucous membranes and deep tissues.

Carcinogenicity:  NTP  IARC Monographs  OSHA Regulated  Not a carcinogen

Signs and Symptoms of Exposure: Irritating to eyes & skin. Burning/redness/irritation.  
Ingestion: May cause vomiting, headache and other medical problems.  
Inhalation: May cause coughing, sneezing, and upper respiratory irritation.

Conditions Generally Aggravated by Exposure: Pre-existing eye, skin & respiratory disorders may be aggravated with contact.

Emergency and First Aid Procedures: Eyes & Skin: Flush with water for 15 minutes, if irritation persists get medical attention.  
Ingestion: Do not induce vomiting. Drink water or milk. Seek medical attention.  
Inhalation: Move to fresh air.

## Section VII - Precautions for Safe Handling and Use

If Material is Released or Spilled: Small spill: cover contaminated area with sodium bicarbonate or soda ash and add water if necessary to form a slurry. Large spill: dike to prevent spreading

Wastes Disposal Method: Dispose of in accordance with federal, state, and local regulations.

Precautions for Handling and Storing:

Other Precautions: Container may be under pressure. Do not weld empty container, vapors may ignite.

## Section VIII - Control Measures

Respiratory Protection: None required if used as directed in well ventilated area. Ventilation: Mechanical (General)

Protective Gloves: Rubber Gloves may be used.

Eye Protection: Chemical goggles and/or Face shield

Other Protective Equipment: Eye wash and sink area for washing skin.

Work/Hygenic Practices: Wash hands before eating. Launder contaminated clothing before re-use.