

EXAMPLE OF GOVERNMENT SAFETY AND REGULATION DATA

(Found on www.proscitech.com.au/catalogue/msds/c350.pdf)

MATERIAL SAFETY DATA SHEET Formic Acid

STATEMENT OF HAZAREDOUS NATURE

Hazardous according to criteria of Worksafe Australia

IDENTIFICATION SECTION

Product Name	Formic Acid
Other Names	
Product Code	C350
U. N. Number	UN1779
Dangerous Goods Class and Subsidiary Risk	8
Hazchem Code	2R
Poison Schedule	None allocated
Use	Chemical reagent

Physical Description and Properties

Appearance	Colourless, liquid, pungent odour
Boiling Point / Melting Point	BP 101° C, MP 8° C
Vapour Pressure	23mm Hg
Specific Gravity	1.21
Flash Point	50oC
Flammability Limits	Upper: 57%, Lower: 18%
Solubility in water	Complete

Other Properties

Ingredients		
Chemical Name	CAS Number	Proportion
HCOOH	64-18-6	100%

PRECAUTIONS FOR USE:

Exposure Standards:	TLV/TWA : 9mg / m3 5ppm
Engineering Controls:	Use general or local exhaust ventilation to meet TLV requirements.
Personal Protection:	Wear safety goggles and face shield, uniform protective suite, acid-resistant gloves are recommended. Respiratory protection required if airborne concentration exceeds TLV. At concentration up to 100 ppm.
Respirator:	A chemical cartridge respirator with organic vapor cartridge and dust/mist filter is recommended. Above this level, a self-contained breathing apparatus is recommended.

HEALTH HAZARD INFORMATION

Health Effects:

Acute

Swallowed:

May cause acute local tissue damage, with other effects ranging from nausea and dizziness to unconsciousness.

Eye:

May cause severe irritation or burns.

Skin:

May cause severe irritation or burns.

Inhaled:

May cause severe irritation to the respiratory system. May cause coughing, chest pains, nausea and vomiting.

Chronic

Prolonged vapor exposure may produce conjunctivitis of the eyes and irritation and dermatitis of the skin.

First Aid:

Swallowed:

Do not induce vomiting. If conscious give water, milk or milk of magnesia. Call a physician.

Eye:

Immediately flush eyes with copious amounts of water for at least 15 minutes. Call a physician.

Skin:

Immediately wash skin with soap and copious amounts of water. Wash contaminated clothing before reuse. Call a physician.

Inhaled:

Remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

First Aid Facilities:

Eye bath, safety shower.

Advice to Doctor:

No specific antidote. Treat symptomatically and supportively.

SAFE HANDLING INFORMATION

Storage and Transport:

Keep container tightly closed. Store in a cool, dry, well-ventilated, flammable liquid storage area or cabinet. Bond and ground containers when transferring liquid.

Spills and Disposal:

Wear self-contained breathing apparatus and full protective clothing. Shut off ignition sources; No flares, smoking or flames in the area. Stop leak if you can do so without risk. Neutralize spill with soda ash or lime. With clean shovel, carefully place material into a clean dry container and cover. Remove from spill area. Flush spill area with water. Observe all federal, state and local environmental regulations.

Fire/Explosion Hazard:

Use water spray, alcohol foam, dry chemical or carbon dioxide. Firefighters should wear proper protective equipment and self-contained breathing apparatus with full face piece operative in positive pressure mode. Move container in fire risk area if it can be done so without risk. Use water to keep fire-exposed container cool. Thermal decomposition products may include toxic oxides of carbon.

OTHER INFORMATION

Incompatibilities

(Materials to avoid)

Acids, aluminum, bases (strong), Furfuryl alcohol, hydrogen peroxide, nitric acid, nitro methane, oxidizers (strong), palladium-carbon catalyst, phosphorus pentoxide, plastic, rubber, coatings, sodium hypochlorite, sulfuric acid (concentrated).

Animal Toxicity Data:

LD50 (ORAL-RAT)	LD50 (IPR-MOUSE)	940mg/kg
1100mg/kg		

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