Comet Chemical Company Ltd.
3463 Thomas Street Innisfil ,ON L9S 3W4
Tel: (705) 436−5580 Fax: (705) 436−7194

Material Safety Data Sheet

NITRIC ACID

Revision Date: 2008/07/10

Section 1 : PRODUCT AND COMPANY IDENTIFICATION

Chemical family: Mixture.

Product uses: Explosives, fertiliser and organic dye mfg, metal etching and treatment, cellulose nitrate mfg.

Product name: Nitric Acid

Supplier: Comet Chemical Ltd.
3463 Thomas Street
Innisfil, On.
L9S 3W4.

Supplier 24 hour phone number: (705)436−5580 − weekdays from 8:00−5:00.
(800)567−7455 all other times (Newalta Services).

Section 2 : INGREDIENT INFORMATION

C.A.S.	CONCENTRATION %	Ingrédient	V.L.E.	DL/50	CL/50
7697−37−2	60−70	NITRIC ACID	2 PPM	NOT AVAILABLE	260 MG/M3/30M RAT INHALATION 130 MG/M3/4H RAT INHALATION

Section 2A: ADDITIONAL INGREDIENT INFORMATION

Note: (supplier).
CAS# 7697−37−2: LD50 110 mg/kg rat oral.
CAS# 7697−37−2: LC50 3100 ppm rat inhalation.

Section 3 : HAZARD IDENTIFICATION

Route of entry: Eye contact, skin contact, skin absorption, inhalation and ingestion.

Effects of acute exposure

Eye contact: May cause permanent eye damage.
Severe burns.

Skin contact: May cause ulceration.
Skin will turn yellow/brown.
May cause severe burns.

Skin absorption: Nil − severe skin damage precludes absorption.

Inhalation: Severe irritant.
May cause damage to the respiratory system.
Effects may be delayed.

Ingestion: May burn stomach.
May cause ulceration.
Severe burns to mouth and throat.
May cause severe pain.

Effects of chronic exposure: May cause dermatitis.
May aggravate asthma and pulmonary diseases.
May cause chronic lung inflammation.
May cause pneumonia.

Sensitization to product: No

Carcinogenic effects: Not listed as a carcinogen.

Reproductive effects: Not available.

Teratogenicity: Not available.

Mutagenicity: Effects have been reported in animals.

Synergistic materials: Not available.

Section 4 : FIRST AID MEASURES

Skin contact: Wash thoroughly with soap and water.
Remove contaminated clothing.
Consult a physician if irritation persists.

Eye contact: Flush eyes with clear, running water for 15 minutes while holding eyelids open. If irritation persists, consult a physician.

Inhalation: Remove victim to fresh air. If not breathing, qualified personnel should administer artificial respiration. Get medical attention.

Ingestion: Obtain immediate medical attention.
Do not induce vomiting, keep person warm, quiet.
If vomiting occurs, keep head below hips.
Never give anything by mouth to an unconscious person.
Drink several glasses of water to dilute.

Section 5 : FIRE FIGHTING MEASURES

Flammability: Not flammable.

Conditions of flammability: Surrounding fire.

Extinguishing media: Use appropriate extinguishing media for surrounding fire.

Special procedures: Firefighters should wear adequate protective gear.
Self−contained breathing apparatus required.

Auto−ignition temperature (°C): Not flammable.

Flash point (°C), method: Not flammable.

Lower flammability limit (% vol): Not flammable.

Upper flammability limit (% vol): Not flammable.

Explosion Data

Sensitivity to static discharge: Not sensitive.

Sensitivity to mechanical impact: Not sensitive.

Hazardous combustion products: Nitrogen dioxide.
Nitrogen oxides (NOx).
Corrosive vapours.

Rate of burning: Not available.

Explosive power: Reacts with most metals to produce hydrogen gas, which can form an explosive mixture with air.

Section 6 : ACCIDENTAL RELEASE MEASURES

Leak/Spill: Eliminate all sources of ignition.
Dike area to prevent spreading.
Ventilate area.
Wear appropriate protective equipment.
Neutralize with soda ash or lime.
Use water spray to reduce vapors.
Place in a closed container for disposal.
Recover free liquid with pumps.
Do not flush to sewer.

Section 7 : HANDLING AND STORAGE

Handling procedures and equipment: Keep away from heat, sparks, and open flame.
Avoid breathing vapors/mists.
Use adequate ventilation.
Wear personal protective equipment appropriate to task.
Avoid contact with skin, eyes and clothing.
Launder contaminated clothing prior to reuse.
Always add acids to water, never the reverse.
Do not ingest.

Storage requirements: Store away from all sources of ignition.
Store away from incompatible materials.
Keep out of direct sunlight.
Store in a cool, dry and well ventilated area.
Store and use in a cool environment (> −20°C).

Section 8 : EXPOSURE CONTROLS / PERSONAL PROTECTION

Precautionary Measures

Gloves/Type:

Butyl rubber.
Viton gloves.
Barricade gloves.
Saranex gloves.

Respiratory/Type: None required under normal use.
If TLV is exceeded.

NIOSH approved organic vapors.

Eye/Type:

Chemical safety goggles.

Face shield if splashing occurs.

Footwear/Type:

Impervious boots.

Clothing/Type: Long sleeve shirt, long trousers.

Impervious apron.
When splashing is possible.

Other/Type: Eye wash facility should be in close proximity.
Emergency shower should be in close proximity.

Ventilation requirements: As needed to stay below TLV.

Exposure limit of material: Not available for mixture, see the ingredients section.

Section 9 : PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Liquid.

Appearance & odor: Clear
Fuming liquid.
Clear to yellow.
Suffocating odor.

Odor threshold (ppm): 0.75−2.5 mg/m3

Vapour pressure (mmHg): 5.5 mmHg / 0.7 kPa (20°C)

Vapour density (air=1): 2.2

Volatiles (%)

By volume: Not available.

Evaporation rate (butyl acetate = 1): Not available.

Boiling point (°C): 121°C

Freezing point (°C): −33°C

pH: Very strong, very aggressive acid.
< 1

Specific gravity @ 20 °C: 1.4 (20°C)

Solubility in water (%): Complete.

Coefficient of water\oil dist.: Not available.

VOC: Not available.

Section 10 : STABILITY AND REACTIVITY

Chemical stability: Stable under normal conditions.

Conditions of instability: Contact with incompatible substances.

Hazardous polymerization: Will not occur.

Incompatible substances: Reducing agents.
Most common metals.
Hydrofluoric acid (HF).
Alkalies.
Hydrochloric acid.
Strong oxidizing agents.
Wood
Attacks some plastics, rubber, and coatings.
Many organics.

Hazardous decomposition products: See hazardous combustion products.

Section 11 : TOXICOLOGICAL INFORMATION

LD50 of product, species & route: Not available for mixture, see the ingredients section.

LC50 of product, species & route: 3100 ppm/1H rat inhalation.

Section 12 : ECOLOGICAL INFORMATION

Environmental toxicity: No data at this time.

Environmental fate: No data at this time.

Section 13 : DISPOSAL CONSIDERATIONS

Waste disposal: In accordance with municipal, provincial and federal regulations.
Landfill within all local, State and Federal laws.

Section 14 : TRANSPORT INFORMATION

TDG classification: NITRIC ACID
UN2031
Class 8
PG II.

Special shipping information: See transportation information.

Section 15 : REGULATORY INFORMATION

WHMIS classification:

C, E

DSL status: Appears on DSL.

Section 16 : OTHER INFORMATION

Supplier MSDS date: 2008/07/10

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