



Comet Chemical Company Ltd.
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Material Safety Data Sheet

TETRAHYDROFURAN

Revision Date: 2011/08/04

Section 1: PRODUCT INFORMATION

Product name: Tetrahydrofuran

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

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

Chemical family: Not available.

TDG classification: TETRAHYDROFURAN
UN2056
Class 3
PG II.

WHMIS classification:

B2, D2B.



DSL status: Appears on DSL.

Supplier MSDS date: 2011/08/02.

Section 2: HAZARDOUS INGREDIENTS

C.A.S.	CONCENTRATION %	Ingredient Name	T.L.V.	LD/50	LC/50
109-99-9	100	TETRAHYDROFURAN	50 PPM	1650 MG/KG RAT ORAL 2.3 ML/KG RAT ORAL	21,000 PPM/3H RAT INHALATION 72,000 MG/M3/2H RAT INHALATION

Section 3: PHYSICAL DATA

Physical state: Liquid.

Appearance & odor: Colourless.
Clear
Mild ether-like odour.

Odor threshold (ppm): ~3.5

Vapour pressure (mmHg): 132mmHg/17.5kPa @ 20°C.

Vapour density (air=1): 2.5

Volatiles (%)

By volume: Not available.

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

Boiling point (°C): 66°C

Freezing point (°C): -108°C

pH: Not available.

Specific gravity @ 20 °C: 0.89

Solubility in water (%): (also soluble in alcohols, ethers, ketones, esters and hydrocarbons).
300 g/l

Coefficient of water\oil dist.: Not available.

VOC: Not available.

Section 4: FIRE & EXPLOSION DATA

Flammability: Flammable.

Conditions of flammability: Vapours may travel to a source of ignition and flash back.
Heat, sparks and open flames.

Extinguishing media: Dry chemical.
Foam
Water fog.
Do not use water jet.

Special procedures: Firefighters should wear adequate protective gear.
Self-contained breathing apparatus required.
Use water spray to cool fire exposed containers.
This material may produce a floating fire hazard.

Auto-ignition temperature (°C): 321°C

Flash point (°C), method: -17°C

**Lower flammability
limit (% vol):** 1.8%

**Upper flammability
limit (% vol):** 11.8%

Explosion Data

Sensitivity to static discharge: Take precautionary measures against static discharge.

Sensitivity to mechanical impact: Not sensitive.

Hazardous combustion products: Carbon monoxide (CO).
Oxides of nitrogen (NOx).
Smoke
Partially oxidized hydrocarbons.

Explosive power: Not available.

Section 5: REACTIVITY DATA

Chemical stability: Stable under normal conditions.

Conditions of instability: Contact with incompatible substances.

Hazardous polymerization: Will not occur.

Incompatible substances: Peroxides.
Bromine.
Alkalies.
Strong oxidizing agents.

Hazardous decomposition products: May react with air to form explosive peroxides.

Section 6: TOXICOLOGICAL PROPERTIES

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

Effects of acute exposure

Eye contact: Irritant.
Causes redness.

Skin contact: Mild irritant.

Skin absorption: Not considered toxic by skin absorption.

Inhalation: Irritant.
May cause anesthetic effects.
Headache.
May cause weakness.
Dizziness.

Ingestion: Low oral toxicity.

Effects of chronic exposure: May cause dermatitis.
May cause liver and kidney damage.
May cause red blood cell damage.

LD50 of product, species & route: (estimated).
1650 mg/kg rat oral.

LC50 of product, species & route: Estimated.
21,000 ppm rat inhalation.
8400 ppm mouse inhalation.

Exposure limit of material: See hazardous ingredients section.

Sensitization to product: No

Carcinogenic effects: Not listed as a carcinogen.

Reproductive effects: None known.

Teratogenicity: None known.

Mutagenicity: None known.

Synergistic materials: None known.

Section 7: PREVENTATIVE MEASURES


Precautionary Measures

Gloves/Type: Barricade gloves.
Responder gloves.
Trelchem gloves.
Tychem gloves.

Respiratory/Type: None required under normal use.
NIOSH approved respirator with organic vapor cartridge is required if ventilation is inadequate or exposure limits are exceeded.

Eye/Type: 

Safety glasses with side-shields.

Footwear/Type: 

Impervious boots.
When splashing is possible.

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: Ventilate adequately.
As needed to stay below TLV.

Leak/Spill: Eliminate all sources of ignition.
Dike area to prevent spreading.
Prevent entry into drains, sewers, and other waterways.
Ventilate area.
Wear appropriate protective equipment.
Ground handling equipment.
Use non-sparking tools.
Explosion proof motors are recommended.
Recover free liquid.
Pump to containers or soak up on inert absorbent.
Place in a closed container for disposal.
Do not flush to sewer.
Blanket spill with foam to protect against accidental ignition.
Do not operate electrical appliances near spill.

Waste disposal: In accordance with municipal, provincial and federal regulations.
May be incinerated.

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.
Wash thoroughly after handling.
Use non-sparking tools.
Use proper grounding procedures.
Avoid contact with skin, eyes and clothing.
Do not cut, grind, weld or drill on or near containers.
Use with explosion proof equipment.
Launder contaminated clothing prior to reuse.

Storage requirements: Store away from all sources of ignition.
Store away from incompatible materials.
Store in a cool, dry and well ventilated area.

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Special shipping information: See transportation information.

Section 8: FIRST AID MEASURES

- Skin contact:** Remove contaminated clothing.
Wash thoroughly with soap and water.
Seek medical attention 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.
Guard against aspiration of liquids into lungs.
If vomiting occurs, keep head below hips.
Never give anything by mouth to an unconscious person.
Immediately drink plenty of water.

Section 9: ADDITIONAL INFORMATION

General note: This material safety data sheet was prepared from information obtained from various sources, including product suppliers and the Canadian Center for Occupational Health and Safety.

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