MATERIAL SAFETY DATA SHEET



1. Product and company identification

Product Name	: Solvent
Product Code	: 0620
Supplier	: NEMCO RESOURCES LTD.
	25 Midland Street
	Winnipeg, Manitoba
	R3E 3J6 Canada
Date Issued	: January, 2014
Supplier (call collect)	: 204-788-1030
CANUTEC	: 613-996-6666

2. Hazards identification

EMERGENCY OVERVIEW

DANGER	Physical State:	Liquid.
COMBUSTIBLE LIQUID AND VAPOR. HARMFUL OR FATAL IF SWALLOWED. CAN ENTER LUNGS AND CAUSE DAMAGE. CANCER HAZARD – CAN CAUSE CANCER.	Colour:	Colourless.
IRRITATING TO EYES AND SKIN.	Odour:	Petroleum/solvent.

WHMIS	Personal Protection Equipment	TDG (Ground)

Potential Health Effects:	See Section 11 for more information.
Likely Routes of Exposure:	Eye contact. Skin contact. Inhalation. Ingestion. Skin absorption.
Eye:	Irritating to eyes. Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision.
Skin:	Irritating to skin. Signs/symptoms may include localized redness, swelling, and itching. Naphthalene may be absorbed through the skin in harmful amounts.
Ingestion:	Harmful or fatal: may cause lung damage if swallowed. Swallowing the liquid may cause aspiration into the lungs with the risk of chemical pneumonitis. May cause gastrointestinal irritation. Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea. Naphthalene may cause liver and kidney damage. May cause blood abnormalities, methemoglobinemia, cyanosis (bluish discoloration of skin due to deficient oxygenation of the blood), convulsions, and death.

Inhalation:	May cause respiratory tract irritation. Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain. May cause headache, dizziness, confusion, loss of appetite and loss of consciousness. High vapour concentrations of Xylene are anesthetic and central nervous system depressants. Hemolytic anemia (destruction of red blood cells) is the primary health concern for humans exposed to Naphthalene for either short or long periods of time. Other effects may include nausea, profuse perspiration, vomiting, kidney damage and liver damage.
Chronic Effects:	See Section 11 for more information.
Medical Conditions Aggravated by Exposure:	Glucose-6-phosphate dehydrogenase deficiency.
Target Organs:	Skin. Eyes. Gastrointestinal tract. Respiratory system. Blood. Liver. Kidneys. Kidneys. Nervous system.
Potential Environmental Effects:	See Section 12 for more information.

This material is considered hazardous by the OSHA Hazard Communication Standard, (29 CFR 1910.1200).

3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS No.	Wt%
Stoddard Solvent	8052-41-3	100%
Nonane	111-84-2	1 - 5
1,2,4-trimethylbenzene	95-63-6	1 - 5
Xylene	1330-20-7	0.1 - 0.9
Ethylbenzene	100-41-4	0.1 - 0.5
Naphthalene	91-20-3	0.1 - 0.5

4. FIRST AID MEASURES

Eye Contact:	Flush eyes with plenty of water for at least 15 minutes. If signs/symptoms persist, get medical attention.
Skin Contact:	Wash skin with soap and water for at least 15 minutes while removing contaminated clothing and shoes. If signs/symptoms develop, get medical attention.
Ingestion:	Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.
Inhalation:	Remove person to fresh air. If breathing has stopped apply artificial respiration. If signs/symptoms develop, get medical attention.
General Advice:	In case of accident or if you feel unwell, seek medical advice immediately (show the label or MSDS where possible).
Note to Physicians:	Symptoms may not appear immediately. Individuals with a glucose-6-phosphate dehydrogenase deficiency are hypersensitive to the effects of Naphthalene. Naphthalene is known to cause carcinogenicity, headache, confusion, excitement, nausea, vomiting, abdominal pain, profuse sweating; jaundice;

5. FIRE FIGHTING MEASURES

Extinguishing Media Auto-Ignition Temp.	:	(non-polar/water-immiscible). CAUTION: DO NOT use water jet. This product has a low flash point, use of water spray when fighting fire may be inefficient. Use water fog, foam dry chemical or Carbon Dioxide to extinguish flames. 229°C (444°F)
Flash Point	:	43 ℃ (109 °F). (Tag Closed Cup)
Flammability	:	Can release vapour that form explosive mixtures with air at, or above 40 deg C. Liquid can accumulate static charge by flow or agitation. Liquid can float on water and may travel to distant locations and/or spread fire. During a fire, irritating/toxic gases may be generated. Containers may explode in heat of fire. Fire hazard in presence of various substances: Low fire hazard. Must be moderately heated before ignition will occur. Avoid contact with strong oxidizing agents, including peroxides, chlorine and strong acids.
Flammable Limits in Air	:	LEL: 1%, UEL: 13.3%
Special Fire Fighting Procedures	:	NAERG96. GUIDE 128. Flammable/combustible liquid. If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (0.5 mile) in all directions; also, consider initial evacuation for 800 meters (0.5 mile) in all directions. DO NOT extinguish a leaking gas flame unless leak can be stopped. Shut off fuel to fire if it is possible to do so without hazard. If this is impossible, withdraw from area and let fire burn out under controlled conditions. Withdraw immediately in case of rising sound from venting safety device or any discolouration of tank due to fire. Cool containing vessels with water spray in order to prevent pressure build-up, autoignition or explosion. Avoid flushing spilled material into sewers, streams or other bodies of water. Self-contained breathing apparatus (SCBA) will be required if approaching the fire from downwind, or to enter enclosed areas or buildings.
Risk of Explosion	:	Do not cut, weld, heat, or drill empty containers. Vapours are heavier than air and may travel considerable distance to sources of ignition and flash back Runoff to sewer may create fire or explosion hazard.

6. ACCIDENTAL RELEASE MEASURES

In Case of Spill

: Eliminate all sources of ignition such as flares, flames (including pilot lights), and electrical sparks. Ventilate the area. Wear proper protective equipment (Section 8). Avoid breathing vapors. Collect with an inert absorbent and dispose of properly.

7. HANDLING AND STORAGE

Handling	:	All hazard precautions given in the data sheet must be observed. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling. Use only with adequate ventilation. Do not breathe vapors or spray mist. Do not take internally. Close container after each use. Keep out of reach of children.
Storage	:	Store material in a cool, well-ventilated area. For maximum product quality, avoid prolonged storage at temperatures above 75 °F (25 °C). Do not use or store near heat, sparks, or open flame. Keep container tightly closed. Avoid contact with incompatible materials

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Respiratory Protection	:	Use a NIOSH approved respirator designed to remove particulate matter and organic solvent vapors.
Engineering Controls	:	Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below acceptable limits. Explosion-proof ventilation system is acceptable.
Eye/Face Protection	:	Chemical splash goggles in compliance with OSHA regulations are recommended
Skin/Hand Protection	:	Protective gloves and proper clothing should be worn to prevent skin contact. Gloves should be made of neoprene or natural rubber. A barrier cream may be used for additional skin protection. To prevent repeated or prolonged skin contact, wear impervious clothing and boots

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	Liquid
Odor	:	Petroleum/solvent
ph	:	Not available
Boiling Point °C (F)	:	159-195°C (320-374°F)
Vapor Pressure -mmHg 20 °C	:	0.285kPa(2.14 mmHg)@ 20°C , 0.9 kPa (6.75 mmHg)@38°C
Vapor Density:	:	4.9(air=1)
Relative Density, 15 °C	:	0.788
Molecular Weight	:	140
Evaporation Rate	:	0.14(N-Butyl Acetate =1)
Freezing/Melting Point, °C	:	-58

FOR FURTHER TECHNICAL INFORMATION, CONTACT YOUR MARKETING REPRESENTATIVE

10. STABILITY AND REACTIVITY

Chemical Stability Incompatibility (Materials to Avoid)	:	Stable under normal handling conditions Avoid contact in uncontrolled conditions with: strong oxidizing agents
Hazardous Decomposition Products	:	May form: carbon dioxide, carbon monoxide and various hydrocarbons.
Hazardous Polymerization	:	Product will not undergo hazardous polymerization

11. TOXICOLOGICAL DATA

ACUTE TOXICOLOGY

Oral LD 50 **Dermal LD50 Routes of Entry**

- : Greater than 5000 mg/kg
- Greater than 2000 mg/kg : : Skin & eye contact, inhalation and ingestion

Remark

Minimally toxic by inhalation, based on test data for structurally similar materials. Negligible hazard of irritation by inhalation at ambient/normal handling temperatures, based on test data for structurally similar materials. Minimally toxic by ingestion, based on test data for structurally similar materials (LD50 >5000mg/kg). Minimally toxic by skin, based on test data for structurally similar materials (LD50 >3160 mg/kg). Irritating to the skin, based on test data for structurally similar materials. May cause short lasting discomfort to the eyes, based on test data for structurally similar materials.

12. ECOLOGICAL INFORMATION

Ecotoxicity

This material should not be released to sewage, draining systems or any body of water exceeding concentrations of approved limits under applicable regulations and permits

13. DISPOSAL CONSIDERATIONS

This material as supplied, if discarded, would be regulated as a hazardous waste under RCRA (40 CFR 261). Dispose of in accordance with applicable federal, state, and local regulations.

This material would be regulated as EPA Hazardous Waste Number D001 based on the characteristic of ignitability.

14. TRANSPORT INFORMATION

DOT	:	The DOT Classification for shipping is dependant on quantity, type of packaging or method of shipment.	
TDG road / rail	:	Class 3: Flammable liquid with a flash point less than or equal to 60.5 C(140.9 F). Closed cup test method.	
<u>Canada</u> WHMIS	:	CLASS B-3: Combustible liquid with a flash point between 37.8 ℃ (100 ℉) and 93.3 ℃ (200 ℉). CLASS D-2B: Material causing other toxic effects (TOXIC).	

NEMCO RESOURCES LTD. Solvent





16. OTHER INFORMATION

HMIS Rating: Health – 1, Flammability - 2, Reactivity - 0 Key- 0=Least, 1=Slight, 2=Moderate, 3=Serious, 4=Extreme, *=Chronic Effects

Information given herein is offered in good faith as accurate, but without guarantee. Conditions of use and suitability of the product for particular uses are beyond our control. All risks of use of the product are therefore assumed by the user and WE EXPRESSLY DISCLAIM ALL WARRANTIES OF EVERY KIND AND NATURE, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE IN RESPECT TO THE USE OR SUITABILITY OF THE PRODUCT. Nothing is intended as a recommendation for uses, which infringe valid patents, or as extending license under valid patents. Appropriate warnings and safe-handling procedures should be provided to handlers and users. Alteration of this document is strictly prohibited. Except to the extent required by law, republication or retransmission of this document, in whole or in part, is not permitted. Nemco assumes no responsibility for accuracy of information unless the document is the most current available from an official Nemco distribution system. Nemco neither represents nor warrants that the format, content or product formulas contained in this document comply with the laws of any country except Canada.

FOR FURTHER INFORMATION, CONTACT:

Date of printing	:	January, 2014
Date of issue	:	January, 2014
Supplier	:	Nemco Resources Ltd
Address	:	25 Midland Street Winnipeg, Manitoba R3E 3J6 CANADA
Telephone	:	204-788-1030
Fax	:	204-788-1593