Environmental Guideline for

Waste Solvent

Department of Environment
Government of Nunavut

GUIDELINE: WASTE SOLVENT

Original: January 2002
Revised: January 2011

This Guideline has been prepared by the Department of Environment's Environmental Protection Division and approved by the Minister of Environment under the authority of Section 2.2 of the *Environmental Protection Act.*

This Guideline is not an official statement of the law and is provided for guidance only. Its intent is to increase the awareness and understanding of the risks, hazards and best management practices associated with waste solvent. This Guideline does not replace the need for the owner or person in charge, management or control of the waste to comply with all applicable legislation and to consult with Nunavut's Department of Environment, other regulatory authorities and qualified persons with expertise in the management of waste solvent.

Copies of this Guideline are available upon request from:

Department of Environment
Government of Nunavut
P.O. Box 1000, Station 1360, Iqaluit, NU, X0A 0H0
Electronic version of the Guideline is available at http://env.gov.nu.ca/programareas/environmentprotection

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Introduction

A solvent is a liquid that dissolves another substance. Solvents are some of the most widely used and important chemicals in the world today. In the chemical and manufacturing industry, solvents are used in large amounts for metal cleaning, foam blowing, pharmaceutical manufacturing, cleaning printed circuit boards and to produce a wide range of industrial and commercial products including refrigerants, paints and adhesives. In Nunavut, solvents are widely used as a cleaning agent by the mining, oil and gas, dry cleaning, printing, automotive servicing and health care sectors. Solvents are also found in many common household items including oil-based paints, paint thinners, nail polish remover, glue and glue solvents, spot removers, detergents and perfumes.

There are many different types of solvents, each presenting a different level of hazard and risk to human health and safety, plants, wildlife and fish. Some are chlorinated, while others are not. Most solvents are made from petroleum or alcohol and are commonly referred to as *organic solvents*. Inorganic solvents are less common and are typically used in research chemistry and some technological processes. It is the organic solvents that are the subject of the *Environmental Guideline for Waste Solvent* (the Guideline).

The Guideline provides information on the characteristics and potential effects of waste solvent and guidance on its proper storage, transportation and disposal. It is not an official statement of the law. For further information and guidance, the owner or person in charge, management or control of unwanted or waste solvent is encouraged to review all applicable legislation and consult the Department of Environment, other regulatory agencies or qualified persons with expertise in the management of waste solvent.

The *Environmental Protection Act* enables the Government of Nunavut to implement measures to preserve, protect and enhance the quality of the natural environment. Section 2.2 of the *Act* provides the Minister with authority to develop, coordinate, and administer the Guideline.

1.1 Definitions

Commissioner's Land	Lands that have been transferred by Order-in-Council to the Government of Nunavut. This includes roadways and land subject to block land transfers. Most Commissioner's Land is located within municipalities.
Contaminant	Any noise, heat, vibration or substance and includes such other substance as the Minister may prescribe that, where discharged into the environment, (a) endangers the health, safety or welfare of persons, (b) interferes or is likely to interfere with normal enjoyment of life or property, (c) endangers the health of animal life, or (d) causes or is likely to cause damage to plant life or to property.
Dangerous Good	Any product, substance or organism included by its nature or by the *Transportation of Dangerous Goods Regulations* in any of the classes listed in the schedule provided in the *Transportation of Dangerous Goods Act*.

Environment	The components of the Earth and includes (a) air, land and water, (b) all layers of the atmosphere, (c) all organic and inorganic matter and living organisms, and (d) the interacting natural systems that include components referred to in paragraphs (a) to (c) above.
Inorganic Solvent	A solvent, other than water, that is not an organic compound (i.e. does not contain carbon).
Minister	The Minister of Environment of the Government of Nunavut.
Organic Solvent	A solvent that is an organic compound (i.e. contains carbon).
Qualified Person	A person who has an appropriate level of knowledge and experience in all relevant aspects of waste management.
Responsible Party	The owner or person in charge, management or control of the waste.
Solvent	A liquid capable of dissolving other substances.
Transport Authority	The statute and regulations controlling the management of hazardous waste under that mode of transport. These include (a) Road and Rail - *Transportation of Dangerous Goods Act* (Canada) and *Regulations; Interprovincial Movement of Hazardous Waste Regulations* and *Export and Import of Hazardous Waste and Hazardous Recyclable Material Regulations*. (b) Air – *International Air Transport Association (IATA) Dangerous Goods Regulations* and *International Civil Aviation Organization* (ICAO) *Technical Instructions;* and (c) Marine – *International Maritime Dangerous Goods Code* (IMDG).
Waste Solvent	Solvent that is no longer wanted or is unusable for its intended purpose and is intended for storage, recycling, treatment or disposal.

1.2 Roles and Responsibilities

1.2.1 Department of Environment

The Environmental Protection Division is the key environmental agency responsible for ensuring parties properly manage waste solvent and will provide advice and guidance on its management, including disposal. Authority is derived from the *Environmental Protection Act*, which prohibits the discharge of contaminants to the environment and enables the Minister to undertake actions to ensure appropriate management measures are in place. Although programs and services are applied primarily to activities taking place on Commissioner's and municipal lands and to Government of Nunavut undertakings, the *Environmental Protection Act* may be applied to the whole of the territory where other controlling legislation, standards and guidelines do not exist. A complete listing of relevant legislation and

guidelines can be obtained by contacting the Department of Environment or by visiting the web site at http://env.gov.nu.ca/programareas/environmentprotection.

1.2.2 Generators of Waste Solvent

The owner or person in charge, management or control of waste solvent is known as the responsible party. In general, the responsible party must ensure the unwanted solvent is properly and safely managed from the time it is produced to its final disposal. This is referred to as managing the waste from cradle-to-grave. Information on the general management of hazardous waste in Nunavut, including generator, carrier and receiver responsibilities, can be obtained by referring to the *Environmental Guideline for the General Management of Hazardous Waste*.

Contractors may manage unwanted or waste solvent on behalf of the responsible party. However, the responsible party remains liable for ensuring the method of management complies with all applicable statutes, regulations, standards, guidelines and local by-laws. If the contractor does not comply with the requirements of the *Environmental Protection Act* and is charged with a violation while managing the waste, the responsible party may also be charged.

1.2.3 Other Regulatory Agencies

Other regulatory agencies may have to be consulted regarding the management of waste solvent as there may be other environmental or public and worker health and safety issues to consider.

Workers' Safety and Compensation Commission

The Workers' Safety and Compensation Commission is responsible for promoting and regulating worker and workplace health and safety in Nunavut. The Commission derives its authority from the *Workers' Compensation Act* and *Safety Act* which require an employer to maintain a safe workplace and ensure the safety and well being of workers.

Department of Community and Government Services

The Department of Community and Government Services is responsible under the *Commissioners' Lands Act* for the issuance of land leases, reserves, licenses and permits on Commissioner's Lands. The Department, in cooperation with communities, is also responsible for the planning and funding of municipal solid waste and sewage disposal facilities in most Nunavut communities.

Department of Health and Social Services

Activities related to the management of waste solvent may have an impact on public health. The Office of the Chief Medical Officer of Health and Regional Environmental Health Officers should be consulted regarding legislated requirements under the *Public Health Act.*

Department of Economic Development and Transportation

The Motor Vehicles Division is responsible for ensuring the safe transport of hazardous waste and other dangerous goods by road through administration of the *Transportation of Dangerous Goods Act*. The Department is also responsible under the *Motor Vehicles Act* for driver licensing and various other vehicle and road safety matters.

Environment Canada

Environment Canada is responsible for administering the *Canadian Environmental Protection Act* (CEPA) and for regulating the interprovincial and international movement of hazardous waste, including unwanted or waste solvent, under the *Interprovincial Movement of Hazardous Waste Regulations* and *Export and Import of Hazardous Waste and Hazardous Recyclable Material Regulations*. Environment Canada is also responsible for administering the pollution prevention provisions of the federal *Fisheries Act* and owns the EcoLogo initiative, which is designed to help consumers and industry make more environmentally conscious purchasing decisions.

Indian and Northern Affairs Canada

Indian and Northern Affairs Canada is responsible under the *Territorial Lands Act* and *Nunavut Waters and Nunavut Surface Rights Tribunal Act* for the management of federal lands and waters in Nunavut, including the impact waste solvent may have on the quality of these lands and waters.

Local Municipal Governments

The role of municipal governments is important in the proper local management of waste solvent. Under the Nunavut Land Claims Agreement, municipalities are entitled to control their own municipal disposal sites. Unwanted waste may be deposited into municipal landfill sites and sewage lagoons only with the consent of the local government. The local fire department may also be called upon if a fire or other public safety issue is identified.

Co-management Boards and Agencies

Co-management boards and agencies established under the Nunavut Land Claims Agreement have broad authority for land use planning, impact assessment and the administration of land and water. Activities involving the management and disposal of waste solvent may be controlled through the setting of terms and conditions in plans, permits and licenses issued by the Nunavut Water Board and other co-management boards and agencies.

Characteristics and Potential Effects of Solvent

2.1 Characteristics

Solvents are one of the most widely used groups of chemicals and are often found in cleaning products and degreasers. Most are made from petroleum or alcohol and these are commonly referred to as *organic solvents*. Organic solvents are flammable and caution must be taken around open sparks or other possible sources of ignition. Solvents may also be harmful to human health through skin contact, inhalation or ingestion. Many solvents contain chlorine and these are commonly referred to as being *chlorinated*. Special precautions must be taken when handling chlorinated solvents as studies have linked their long-term exposure in the workplace to cancer and damage to the central nervous and reproductive systems.

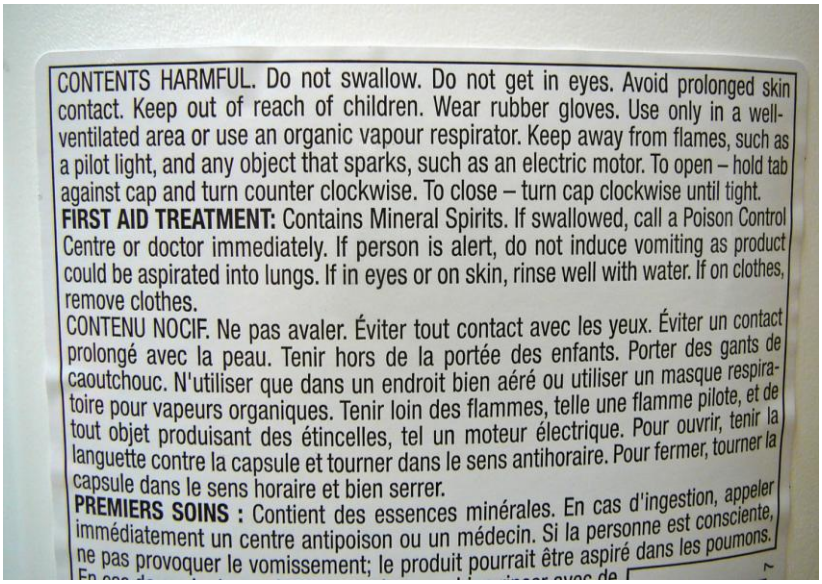

Figure 1 – Typical Solvent Container Warning Label
Source: E. Paquin

An important property of any solvent is its boiling point[1] as this determines how fast the solvent will evaporate. Small amounts of a low-boiling point solvent (i.e. diethyl ether, dichloromethane or acetone) will evaporate very quickly at normal room temperature. A fire hazard may exist if high enough concentrations of flammable vapours are present in the vicinity of sparks, static electricity or other sources of ignition. High-boiling point solvents (i.e. dimethyl sulfoxide) evaporate slowly at normal room temperature and have a lower fire hazard.

Most organic solvents have densities lower than water, which means they are lighter and will form a separate layer on top of water if they are spilled. Those organic solvents with a density higher than water will sink if they are allowed to enter a water body, making cleanup very difficult.

Table 1 describes several common solvents, their characteristics and uses. It is important to note that only solvents in common use in Nunavut have been included. There are hundreds of types of solvents in use today, most of which are used in the industrial production of chemicals and other products.

2.2 Potential Effects on Environment and Human Health

Soil and water may be impacted when solvents are spilled or discharged to the environment. Although solvents generally degrade very rapidly in warm environments, the cold ground temperatures found in Nunavut result in the natural degradation process being very slow. As a result, some solvents (i.e.

[1] Boiling point is the temperature that a liquid begins to boil and become a gas or vapour.

trichloroethylene, perchloroethylene) can persist in soil for many years following a spill. Once in the ground, these solvents will slowly mix with groundwater or migrate through soil toward adjacent rivers, lakes and other surface waters.

Table 1: Solvents in Common Use in Nunavut

Name	Chemical Characteristics	Common Uses
Ammonia	A colourless gas with a pungent smell that can be readily mixed with water. The resulting solution is alkaline (i.e. pH greater than 7).	Household ammonia is commonly used as a general purpose cleaner for surfaces (i.e. glass, porcelain and stainless steel). Ammonia has also been used as a refrigerant in older appliances.
Diethyl ether	Commonly known as 'ether', diethyl ether is a colourless and highly flammable liquid with a low boiling point and a characteristic odor.	Diethyl ether is a common laboratory solvent and is used as a starting fluid for diesel and gasoline engines.
Dichloromethane	Also known as methylene chloride, dichloromethane is a colorless, flammable liquid with a moderately sweet aroma.	Dichloromethane is widely used as a paint stripper and degreaser. It is also used in model-making for joining plastic components.
Acetone	A colourless and flammable liquid that is highly mixable with water.	Acetone is used for a heavy-duty degreaser, thinning oil-based paints, thinning fiberglass resin and cleaning fiberglass tools.
Tetrachloroethylene	Also known as 'perchloroethylene', tetrachloroethylene is a colourless, stable and non-flammable chlorinated solvent with a sweet odour.	Tetrachloroethylene is an excellent solvent for organic materials and is widely used in dry cleaning and to degrease metal parts in the automotive sector.
Chloroform	A colourless, sweet-smelling, dense liquid that is relatively unreactive.	Chloroform is commonly used in laboratories as a solvent. It is also used to bond pieces of plexiglass and was once a popular anesthetic.
Ethanol	Ethanol is a volatile, colourless liquid that has a strong characteristic odor. It burns with a smokeless blue flame that is not always visible in normal light. Unlike most organic solvents, ethanol is mixable with water.	The largest single use of ethanol is as a motor fuel and fuel additive. Ethanol is the principal constituent in alcoholic beverages and is used in medical wipes and most antibacterial hand sanitizer gels.
Methanol	Also known as methyl alcohol, wood alcohol, wood naphtha or wood spirits, methanol is a light, volatile, colourless, flammable liquid with a distinctive odor that is very similar to, but slightly sweeter than, ethanol.	Methanol is commonly used as antifreeze in windshield washer fluid and as fuel in camping and boating stoves.
'Gasoline'	Gasoline is a clear, volatile and flammable combination of various hydrocarbons.	Although more commonly considered to be a fuel for engines, gasoline is commonly used as a solvent, mainly to cleanup or dilute oil-based paints.

When organic solvents evaporate they release a complex mixture of chemicals to the air. These chemicals, collectively referred to *volatile organic compounds* or VOC's, can be irritating if they come in contact with the skin or to the mucous membranes (i.e. throat, lungs) if they are inhaled. VOCs also

react with nitrogen compounds in the presence of sunlight to produce ground level ozone. While not a problem in Arctic Canada, ground level ozone is a key component of summertime smog which can affect human health and plant growth, reduce visibility and cause the deterioration of buildings and other structures in large southern cities.

Humans can be affected by solvents through breathing in VOC vapours, ingesting the liquid solvent or by absorption through the skin[2]. Depending upon the level and route of exposure, solvents can irritate the eyes, nose and throat, cause skin irritation (i.e. redness, itchiness, scales and blisters) and result in headaches, nausea, dizziness, drowsiness, weakness, fatigue and confusion. Long-term exposure to some solvents, including many chlorinated organic solvents, can cause damage to the liver, kidneys, respiratory and nervous systems, interfere with reproductive health (infertility and miscarriage) and harm the unborn child. The effects of solvents on human health are increased further when alcohol is consumed at the same time as solvent exposure (MFL Occupational Health Center website).

[2] An example of how humans can be exposed to the harmful effects of solvents is through 'gas sniffing'.

Waste Management

Minimizing or avoiding the creation of pollutants and wastes can be more effective in protecting the environment than treating or cleaning them up after they have been created.[3]

3.1 Pollution Prevention

Pollution prevention is a term used to describe methods and practices that minimize or eliminate the generation of waste. Waste solvent results from solvent no longer being usable for its intended purpose because of the presence of impurities or the loss of original properties. Waste solvent can also result from over purchasing. Purchasing the right solvent and purchasing only that amount needed to complete the job and is the best way to practice pollution prevention.

Other pollution prevention opportunities for waste solvent include:

Reduce

- Use non-toxic or less toxic substitutes by choosing Ecologo certified products[4]. A complete listing of environmentally-preferable products is available for downloading at http://www.ecologo.org/en/index.asp.
- Develop effective inventory controls and ensure quantities of inventoried solvent are completely used before purchasing more.
- Train staff and review work practices to ensure the smallest quantity of solvent is used.

Reuse

- Donate any excess unused solvent to others for use including local theatres, schools, clubs, churches or Hunters and Trappers Associations.
- Some solvents (i.e. paint thinners) can be reused by allowing the suspended solids to settle out, then pouring off the clear top portion for reuse.
- Commercial and industrial users should participate in national, provincial, territorial and local waste exchange programs, establish exchange accounts with approved solvent recyclers or establish on-site small scale recycling options (i.e. filtering, decanting and solvent distillation).
- Make an agreement with your supplier to return any un-opened containers of solvent.

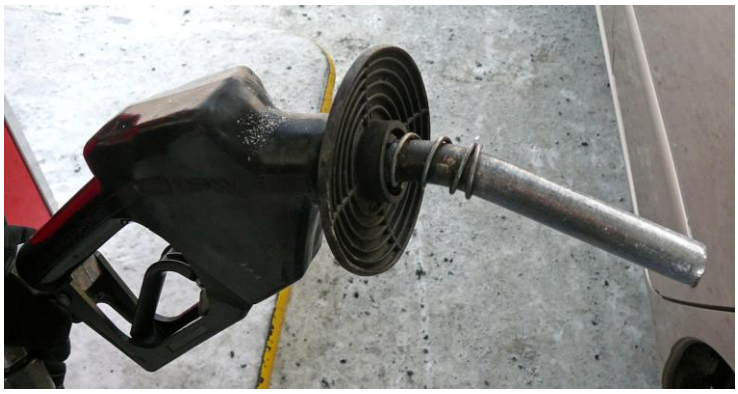

Figure X – Refueling Nozzle with Rubber Cap
Source: E. Paquin

The release of volatile organic compounds into the atmosphere can be reduced by ensuring solvent containers are tightly closed or covered when not in use and by immediately cleaning up leaks and spills when they occur. Installing 'rubber caps' over gasoline refueling nozzles is also a method commonly used to reduce the release of VOC's into the atmosphere when filling vehicles.

[3] Source – Canadian Council of Ministers of the Environment.
[4] The use of chlorinated solvents should be avoided as studies have linked their long-term exposure to cancer and damage to the central nervous and reproductive systems.

The *Workplace Hazardous Materials Information System* (WHMIS) is Canada's national hazard communication standard. WHMIS is administered in Nunavut by the Workers' Safety and Compensation Commission. Key elements of WHMIS are the provision of material safety data sheets (MSDS), container labeling and workers' education and training programs. A MSDS must be provided by the chemical manufacturer and contains information on the properties of the chemical or substance along with instructions on its safe use and handling. Always refer to the MSDS before using a solvent for the first time.

3.2 Storage

Storage refers to keeping excessive unwanted solvent while awaiting its reuse, recycling, transport or disposal. Except under extraordinary circumstances, storage is not acceptable for the long-term management of unwanted or waste solvent and should be considered as a temporary measure only.

Excessive, unwanted or waste solvent should be stored in the following manner:

- Store solvent in its original container or another container certified by the Canadian Standards Association (CSA) for this purpose. Containers should be tightly sealed when not in use to avoid spills and to prevent the solvent from evaporating.
- Bulk solvent should be stored in 16 gauge or lower steel drums.
- Small quantities of solvent should never be stored in used food containers (i.e. bottles and cans).
- Containers should be sound, sealable and not damaged or leaking.
- If the container is leaking, place the leaking container inside a larger leak-proof container.
- Each container must be clearly labeled to identify its contents. If waste solvent is being stored in an institutional, commercial or industrial location or if the solvent is being stored for transport, the containers must be labeled in accordance with the *Workplace Hazardous Materials Information System* (WHMIS) and relevant Transport Authority.
- Place all labeled containers in a secure and clearly marked area which is away from sources of ignition and separate from other waste to prevent its disposal with normal garbage. The storage area should be equipped for spill and leakage containment.
- Containers should be located so as to be protected from the sun, weather and physical damage.
- Workers should be trained in the safe use, handling and shipping for waste solvent, have access to material safety data sheets and be provided with personal protective equipment. Only trained personnel should have access to the designated storage area.
- If solvent is stored at a residence, store the product out of reach of children and pets, away from sources of ignition and away from the house, if possible (i.e. in a shed). Children and other family members should be made aware of the hazards associated with solvent.

If a commercial facility is used to store hazardous waste for periods of 180 days or more or the quantity of solvent and other waste stored on-site exceeds the criteria set out in the *Environmental Guideline for the General Management of Hazardous Waste*[5], the facility must be registered with the Department of Environment as a hazardous waste management facility. Copies of registration forms are available at http://env.gov.nu.ca/programareas/environmentprotection/forms-applications or by contacting Nunavut's Department of Environment. Refer to the *Environmental Guideline for the General Management of Hazardous Waste* for additional information on the registration process.

[5] The criterion for Class 3 Flammable Liquids is 4000 litres and for the aggregate quantity of hazardous waste is 5000 kilograms or litres.

3.3 Transportation

Under the federal *Interprovincial Movement of Hazardous Waste Regulations* and *Export and Import of Hazardous Waste and Hazardous Recyclable Material Regulations,* no person may transport waste solvent in Canada for the purpose of disposal or recycling in a quantity greater than five litres unless it is accompanied by a completed manifest. Manifest forms are available from Nunavut's Department of Environment and completion instructions are included on the reverse side of each manifest. Further information on manifesting can be obtained by referring to the *Environmental Guideline for the General Management of Hazardous Waste* or Environment Canada's *User's Guide for the Hazardous Waste Manifest*.

Waste organic solvent is classified by the *Transportation of Dangerous Goods Act* as a Class 3 Flammable Liquid. The classification, packaging, labeling and placarding of this waste product must also conform to the federal and territorial *Transportation of Dangerous Goods Act* and *Regulations*. Schedule I of the *Regulations* classifies waste solvent as follows:

Shipping Name:	WASTE Flammable Liquid, N.O.S. Classification: 3 Product Identification Number: UN1993 Packing Group: I, II or III Special Provision: 16

The *Transportation of Dangerous Goods Act* requires chlorinated, bromated and other halogenated organic solvents to be identified by its specific shipping name. Consultation with Transport Canada is recommended.

The transport of waste solvent by air must conform to the *International Air Transport Association* (IATA) *Dangerous Goods Regulations* and *International Civil Aviation Organization* (ICAO) *Technical Instructions,* while transport by marine must conform to the *International Marine Dangerous Goods Code*. Further information on transporting these materials can be obtained by contacting Transport Canada or by referring to the appropriate Transport Authority.

Hazardous waste generators, carriers and receivers operating in Nunavut must be registered with the Nunavut Department of Environment. A unique registration number is assigned to each registrant through the registration process, which enables completion of the manifest document. Copies of registration forms are available at http://env.gov.nu.ca/programareas/environmentprotection/forms-applications or by contacting Nunavut's Department of Environment. Refer to the *Environmental Guideline for the General Management of Hazardous Waste* for additional information on the registration process.

A listing of hazardous waste carriers, receivers and hazardous waste management facilities registered to operate in Nunavut is available by contacting Nunavut's Department of Environment.

3.4 Disposal

Unwanted or waste solvent must never be disposed of by pouring it onto the ground, down the drain or discarding it into the landfill or sewage lagoon.

Waste solvent that is generated by government, commercial, industrial or institutional operations should be safely stored until it can be transported to a registered hazardous waste receiver licensed to recycle or dispose of the product. Names of Canadian recyclers and disposal companies are available by contacting the waste management exchanges and associations listed in Appendix 10 of the *Environmental Guideline for the General Management of Hazardous Waste.*

Small volumes of waste solvent (i.e. less than one cup) can be disposed of by allowing the liquid to evaporate. Mixing the waste solvent with cat litter or other absorbent material and spreading the mixture on a piece of plywood will help speed up the drying process. Evaporation or drying must always take place outdoors in an area that is away from sources of ignition and not accessible by children, pets or wildlife.

Solvent containers that have been emptied to the greatest extent possible or triple rinsed with a cleaning agent may be disposed of in the landfill. Any rinsings must be managed according to their specific waste characteristics. The emptied containers should be rendered unusable by puncturing or crushing prior to disposal to prevent their reuse. This is especially important for containers that could be reused for water or food storage.

Some municipalities in Nunavut are implementing programs aimed at collecting and safely storing household hazardous waste as part of their garbage collection programs. Residents wishing to locally dispose of waste solvent should contact their municipality for other disposal options.

Consideration will be given by Nunavut's Department of Environment to management methods that differ from instructions provided in the Guideline where it can be demonstrated that the proposal would result in an equivalent level of environmental protection.

Conclusion

Solvents are some of the most important and widely used chemicals in use today, with each representing a different level of environmental and safety hazard depending upon its own unique chemical and physical properties. The subject of the Guideline is organic solvents, which are the most common type of solvent. These solvents are made from petroleum or alcohol and are generally flammable and toxic. They are widely used in the chemical and manufacturing industries, industrial, commercial and institutional facilities and in homes. The *Environmental Guideline for Waste Solvent* is an introduction to the management of waste solvent. It provides information on the characteristics of solvent, its possible effects on the environment and human health and guidance on its proper storage, transportation and disposal.

Familiarity with the Guideline does not replace the need for the owner or person in charge, management or control of waste solvent to comply with all applicable federal and territorial legislation and municipal by-laws. The management of waste solvent may also be controlled through permits and licenses issued by Nunavut's co-management boards, Indian and Northern Affairs Canada and other regulatory agencies. These permits and licenses must be complied with at all times.

For additional information on the management of waste solvent, or to obtain a listing of available guidelines, go to the Department of Environment web site or contact the Department at:

Environmental Protection Division
Department of Environment
Government of Nunavut
Inuksugait Plaza, P.O. Box 1000, Station 1360
Iqaluit, Nunavut X0A 0H0

Telephone: (867) 975-7729
Fax: (867) 975-7739
Email: EnvironmentalProtection@gov.nu.ca
Website: http://env.gov.nu.ca/programareas/environmentprotection

References

DOW Chemical Company. Chlorinated Solvents Product Manual. Website - http://www.dow.com/gco/steward/manual.htm.

Government of Nunavut, Department of Environment. Environmental Guideline for the General Management of Hazardous Waste, (2010).

Government of Nunavut, Department of Environment. Environmental Guideline for Waste Solvents, (2002).

MFL Occupational Health Center. Fact Sheet – Solvents. Website - http://www.mflohc.mb.ca/fact_sheets_folder/solvents_organic.pdf

APPENDICES

APPENDIX 1 - *ENVIRONMENTAL PROTECTION ACT*

The following are excerpts from the *Environmental Protection Act*

1. "Contaminant" means any noise, heat, vibration or substance and includes such other substance as the Minister may prescribe that, where discharged into the environment,
   (a) endangers the health, safety or welfare of persons,
   (b) interferes or is likely to interfere with normal enjoyment of life or property,
   (c) endangers the health of animal life, or
   (d) causes or is likely to cause damage to plant life or to property;

   "Discharge" includes, but not so as to limit the meaning, any pumping, pouring, throwing, dumping, emitting, burning, spraying, spreading, leaking, spilling, or escaping;

   "Environment" means the components of the Earth and includes
   (a) air, land and water,
   (b) all layers of the atmosphere,
   (c) all organic and inorganic matter and living organisms, and
   (d) the interacting natural systems that include components referred to in paragraphs (a) to (c).

   "Inspector" means a person appointed under subsection 3(2) and includes the Chief Environmental Protection Officer.

2.2 The Minister may
   (a) establish, operate and maintain stations to monitor the quality of the environment in the Territories;
   (b) conduct research studies, conferences and training programs relating to contaminants and to the preservation, protection or enhancement of the environment;
   (c) develop, co-ordinate and administer policies, standards, guidelines and codes of practice relating to the preservation, protection or enhancement of the environment;
   (d) collect, publish and distribute information relating to contaminants and to the preservation, protection or enhancement of the environment:

3. (1) The Minister shall appoint a Chief Environmental Protection Officer who shall administer and enforce this Act and the regulations.

   (2) The Chief Environmental Protection Officer may appoint inspectors and shall specify in the appointment the powers that may be exercised and the duties that may be performed by the inspector under this Act and regulations.

5. (1) Subject to subsection (3), no person shall discharge or permit the discharge of a contaminant into the environment.

   (3) Subsection (1) does not apply where the person who discharged the contaminant or permitted the discharge of the contaminant establishes that
   (a) the discharge is authorized by this Act or the regulations or by an order issued under this Act or the regulations;
   (b) the contaminant has been used solely for domestic purposes and was discharged from within a dwelling house;
   (c) the contaminant was discharged from the exhaust system of a vehicle;

(d) the discharge of the contaminant resulted from the burning of leaves, foliage, wood, crops or stubble for domestic or agricultural purposes;
(e) the discharge of the contaminant resulted from burning for land clearing or land grading;
(f) the discharge of the contaminant resulted from a fire set by a public official for habitat management of silviculture purposes;
(g) the contaminant was discharged for the purposes of combating a forest fire;
(h) the contaminant is a soil particle or grit discharged in the course of agriculture or horticulture; or
(i) the contaminant is a pesticide classified and labelled as "domestic" under the *Pest Control Products Regulations* (Canada).

(4) The exceptions set out in subsection (3) do not apply where a person discharges a contaminant that the inspector has reasonable grounds to believe is not usually associated with a discharge from the excepted activity.

5.1. Where a discharge of a contaminant into the environment in contravention of this Act or the regulations or the provisions of a permit or license issued under this Act or the regulations occurs or a reasonable likelihood of such a discharge exists, every person causing or contributing to the discharge or increasing the likelihood of such a discharge, and the owner or the person in charge, management or control of the contaminant before its discharge or likely discharge, shall immediately:
(a) subject to any regulations, report the discharge or likely discharge to the person or office designated by the regulations;
(b) take all reasonable measures consistent with public safety to stop the discharge, repair any damage caused by the discharge and prevent or eliminate any danger to life, health, property or the environment that results or may be reasonably expected to result from the discharge or likely discharge; and
(c) make a reasonable effort to notify every member of the public who may be adversely affected by the discharge or likely discharge.

6. **(**1) Where an inspector believes on reasonable grounds that a discharge of a contaminant in contravention of this Act or the regulations or a provision of a permit or license issued under this Act or the regulations has occurred or is occurring, the inspector may issue an order requiring any person causing or contributing to the discharge or the owner or the person in charge, management or control of the contaminant to stop the discharge by the date named in the order.

7. (1) Notwithstanding section 6, where a person discharges or permits the discharge of a contaminant into the environment, an inspector may order that person to repair or remedy any injury or damage to the environment that results from the discharge.

(2) Where a person fails or neglects to repair or remedy any injury or damage to the environment in accordance with an order made under subsection (1) or where immediate remedial measures are required to protect the environment, the Chief Environmental Protection Officer may cause to be carried out the measures that he or she considers necessary to repair or remedy an injury or damage to the environment that results from any discharge.

APPENDIX 2 – GOVERNMENT AND INDUSTRY CONTACTS

Government of Nunavut

Environmental Protection Division
Department of Environment
Inuksugait Plaza
P.O. Box 1000, Station 1360
Iqaluit, Nunavut X0A 0H0
Telephone: (867) 975-7729 Fax: (867) 975-7739

Motor Vehicles Division
Department of Economic Development and Transportation
P.O. Box 10
Gjoa Haven, Nunavut X0B 1J0
Telephone: (867) 360-4615 Fax: (867) 360-4619

Workers' Safety and Compensation Commission
P.O. Box 669
Baron Building/1091
Iqaluit, Nunavut X0A 0H0
Telephone: 1-877-404-4407 (toll free)
Fax: 1-866-979-8501

Department of Community and Government Services (all Divisions)
P.O. Box 1000, Station 700
4th Floor, W.G. Brown Building
Iqaluit, Nunavut X0A 0H0
Telephone: (867) 975-5400 Fax: (867) 975-5305

Office of Chief Medical Health Officer of Health
Department of Health and Social Services
P.O. Box 1000, Station 1000
Iqaluit, Nunavut X0A 0H0
Telephone: (867) 975-5774 Fax: (867) 975-5755

Government of Canada

Indian and Northern Affairs – Nunavut Region
P.O. Box 2200
Iqaluit, Nunavut X0A 0H0
Telephone: (867) 975-4500 Fax: (867) 975-4560

Environment Canada (NWT and Nunavut)
5019 52nd Street
Yellowknife, Northwest Territories X1A 1T5
Telephone: (867) 669-4730 Fax: (867) 873-8185

Department of Transport – Road, Rail, Marine, Air
P.O. Box 8550
344 Edmonton Street
Winnipeg, Manitoba R3C 1P6
Telephone: 1-888-463-0521 (toll free)
Fax: (204) 983-8992 Road, Rail and Marine
Fax: (204) 983-1734 Air

Industry

Halogenated Solvents Industry Alliance
1530 Wilson Boulevard, Suite 690
Arlington, Virginia 22209
Telephone: (703) 875-0683 Fax (703) 875-0675
Website: http://www.hsia.org