








Material Safety Data Sheet

WHMIS (Pictograms)	WHMIS (Classification)	Personal protective equipment
 	Class B-2: Flammable liquid with a flash point lower than 37.8°C (100°F). Class D-1B: Material causing immediate and serious toxic effects (Toxic). Class D-2B: Material causing other toxic effects (Toxic).	  

Section 1. Product and Company Identification

Product name / Trade name	Turpentine	Associated Product's Item Code	TURPENTINE
Synonym	Spirit of turpentine	CAS #	8006-64-2
Chemical family	Not available.	Validation date	11/8/2007.
Chemical formula	C ₁₀ H ₁₆	Print date	11/8/2007.
Manufacturer	Recochem Inc. 850 Montee de Liesse Montreal, Quebec 514-341-3550	In case of emergency	Recochem Inc. Communications and Regulatory Affairs Department (905) 791-1788
Material uses	Consumer products: Solvent.		

Section 2. Hazardous Ingredients

Canada

<u>Name</u>	<u>CAS number</u>	<u>%</u>
Turpentine	8006-64-2	100

There are no ingredients or additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Section 3. Hazard Identification

Emergency Overview	WARNING ! FLAMMABLE LIQUID AND VAPOR. Flammable liquid. Keep away from heat, sparks and flame. Avoid breathing vapor or mist. Avoid contact with skin and clothing. Use only with adequate ventilation. Keep container tightly closed and sealed until ready for use.
Potential Acute Health Effects	See Section #11: "Toxicological Information" for further human health effects. Slightly hazardous by the following route of exposure: of skin contact (irritant, sensitizer), of eye contact (irritant), of ingestion, of inhalation (lung irritant). Aspiration hazard if swallowed. Can enter lungs and cause damage.
Note to Physician	Small amounts of liquid aspirated into the respiratory system during ingestion or from vomiting may cause mild to severe pulmonary injury and possible death.

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**Section 4. First aid measures**

Eye contact	Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
Skin contact	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.
Inhalation	Move exposed person to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
Ingestion	Wash out mouth with water. Remove dentures if any. Move exposed person to fresh air. Keep person warm and at rest. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Section 5. Fire fighting measures

Products of combustion	Decomposition products may include the following materials: carbon oxides
Fire-fighting media and instructions	Use dry chemical, CO ₂ , water spray (fog) or foam.
Fire Hazards	Vapor may travel a considerable distance to source of ignition and flash back.
Explosion Hazards	Vapours may travel along ground and flashback along vapour trail.

Section 6. Accidental release measures

Small spill and leak	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble or absorb with an inert dry material and place in an appropriate waste disposal container. Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor.
Large spill and leak	Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13). Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see section 1 for emergency contact information and section 13 for waste disposal.

Section 7. Handling and Storage

Handling	Put on appropriate personal protective equipment (see section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Do not breathe vapor or mist. Do not ingest. Avoid contact with eyes, skin and clothing. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use non-sparking tools. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Empty containers retain product residue and can be hazardous. Do not reuse container.
Storage	See Section #10 for applicable incompatible materials.

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Do not store above the following temperature: 35°C (95°F). Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls, personal protection

Engineering controls

Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Personal protection

Eyes Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts.
Recommended: splash goggles

Body Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Hands Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.
>8 hours (breakthrough time): nitrile rubber

Product name

Exposure limits

United States

Turpentine

OSHA (United States, 2003).

TWA: 100 ppm 8 hour(s).

OSHA PEL (United States, 2003).

TWA: 560 mg/m³ 8 hour(s).

Section 9. Physical and chemical properties

Physical State and Appearance	Liquid.	Odour	Characteristic. Pungent.
Molecular weight	136 g/mole	Taste	Not available.
pH	Not applicable.	Colour	Colorless to Amber.
Boiling/condensation point	150 to 180°C (302 to 356°F)	Volatility	Not available.
Melting/freezing point	-50 to -60°C (-58 to -76°F)	Evaporation rate	<0.005 compared with Butyl acetate.
Relative density	0.86 to 0.875 (Water = 1)	Odour Threshold	100 ppm
Vapour Pressure	0.7 kPa (5 mm Hg) (at 20°C)	Viscosity	Not available.
Vapour Density	4.7 (Air = 1)	Solubility	Insoluble in water.
VOC Content	Not available.	Other Properties	Not available.
The product is:	Flammable.		

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**Auto-ignition temperature** 253°C (487.4°F)**Flash Point** CLOSED CUP: 35°C (95°F). (Tagliabue.).**Flammable limits** LOWER: 0.8% UPPER: 6%**Fire hazards in the presence of various substances** Flammable in the presence of open flames, sparks and static discharge, of heat.**Section 10. Stability and reactivity****Stability** The product is stable. Under normal conditions of storage and use, hazardous polymerization will not occur.**Conditions of instability** No additional remark.**Incompatibility with various substances** Slightly reactive to reactive with oxidizing agents, acids, alkalis.**Section 11. Toxicological information****Routes of entry** Absorbed through skin. Dermal contact. Inhalation. Ingestion.**Environmental effects** No known significant effects or critical hazards.**Acute effects on humans****Eyes** Slightly hazardous by the following route of exposure: of eye contact (irritant). May cause eye irritation, corneal injury and conjunctivitis.**Skin** Slightly hazardous by the following route of exposure: of skin contact (irritant, sensitizer). Skin inflammation is characterized by itching, scaling, reddening or, occasionally, blistering.**Inhalation** Slightly hazardous by the following route of exposure: of inhalation (lung irritant). Inhalation may cause irritation to nose and throat.**Ingestion** Hazardous by the following route of exposure: of ingestion. Aspiration hazard if swallowed. Can enter lungs and cause damage.**Chronic effects on humans** Slightly hazardous by the following route of exposure: of skin contact (irritant, sensitizer), of eye contact (irritant).**CARCINOGENIC EFFECTS:** A4 (Not classifiable for humans or animals.) by ACGIH.**MUTAGENIC EFFECTS:** Not available.**TERATOGENIC EFFECTS:** Not available.**DEVELOPMENTAL TOXICITY:** Not available.**Section 12. Ecological information****Ecotoxicity** For accidental discharges into environment, see Section #6: "Accidental Release Measures" for suggested instructions.

No known significant effects or critical hazards.

Not available.

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**Section 13. Disposal considerations****Waste information**

The generation of waste should be avoided or minimized wherever possible. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Section 14. Transport information**Canada Transportation of Dangerous Goods (TDG) Information**

Primary Class	Class 3: Flammable liquid.
Subsidiary Class (if applicable)	-
Proper shipping name	Turpentine (Turpentine)
Hazard identification number	1299
Packing group	III
Special Provisions	In containers of 5 L (5Kg) capacity or less this product is classified as a "Limited quantity" "Consumer Commodity" under TDG regulations.

**International Maritime Dangerous Goods (IMDG) Transportation Information**

Primary Class	Class 3: Flammable liquid.
Subsidiary Class (if applicable)	-
Proper shipping name	Turpentine (Turpentine)
Hazard identification number	UN 1299
Packing group	III
Marine pollutant	Not available.
Special Provisions	<u>Emergency schedules (EmS)</u> 3-07



No placard (handling and hazard label) required

United States Department of Transportation (DOT) Information

Primary Class	Class 3: Flammable liquid.
Subsidiary class (if applicable)	-
Proper shipping name	Turpentine (Turpentine)
Hazard identification number	UN 1299
Packing group	III
Special Provisions	In containers of 5 L (5Kg) capacity or less this product is classified as a "Consumer Commodity" under DOT regulations.



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International Air Transport Association (IATA) For air shipment classification and associated regulations, please refer to the latest edition of IATA Dangerous Goods Regulations.

Section 15. Other Regulatory Information and Pictograms

WHMIS Classification (Canada)
 Class B-2: Flammable liquid with a flash point lower than 37.8°C (100°F).
 Class D-1B: Material causing immediate and serious toxic effects (Toxic).
 Class D-2B: Material causing other toxic effects (Toxic).



Canada Domestic Substances List (DSL) Status
 This product and/ or all of its components are on the DSL.

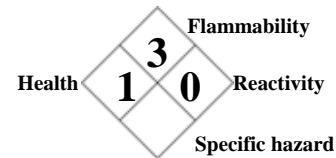
HCS Classification (U.S.A.)
 Flammable liquid

U.S.A. Regulatory Lists
 This product and/ or all of its components are on the TSCA inventory list.

Hazardous Material Information System (U.S.A.)

Health	1
Flammability	3
Reactivity	0
Personal protection	G

National Fire Protection Association (U.S.A.)



Section 16. Other information

Validated and verified by Compliance and Technical Information Manager on 11/8/2007 ph.# 905-791-1788.

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Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein.
 Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

MSDS are available at www.recochem.com