Brenntag Canada Inc.



MATERIAL SAFETY DATA SHEET

DENATURED ALCOHOL DA-2D

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Brenntag Canada Inc. 43 Jutland Rd. Toronto, ON M8Z 2G6 (416) 259-8231

WHMIS#: Index:

00067007 HCI6147/15A 2015 March 24

Effective Date: Date of Revision:

2015 March 24

Website: http://www.brenntag.ca

EMERGENCY TELEPHONE NUMBER (For Emergencies Involving Chemical Spills or Releases)

1 855 273 6824

PRODUCT IDENTIFICATION

Product Name:

Denatured Alcohol DA-2D.

Chemical Name:

Denatured Alcohol

Synonyms:

Denatured Alcohol DA-2D 95%, Denatured Alcohol DA-2D Anhydrous

Chemical Family:

Mixture of oxygenated aliphatic hydrocarbons.

Molecular Formula:

Not applicable.

Product Use:

Industrial solvent, cleaner, degreaser. Chemical intermediate.

WHMIS Classification / Symbol:

B-2: Flammable Liquid D-1B: Toxic (acute effects) D-2A: Very Toxic (teratogen)

D-2B: Toxic (skin and eye irritant)







READ THE ENTIRE MSDS FOR THE COMPLETE HAZARD EVALUATION OF THIS PRODUCT.

2. COMPOSITION, INFORMATION ON INGREDIENTS (Not Intended As Specifications)

Ingredient

CAS#

ACGIH TLV (TWA)

% Concentration

Ethanol

64-17-5

*A4

85 - 95

Methanol

67-56-1

200 ppm (Skin)

7 - 15

A4 = Not classifiable as a human carcinogen. (ACGIH-A4).

Skin Notation: Contact with skin, eyes and mucous membranes can contribute to the overall exposure and may invalidate the TLV. Consider measures to prevent absorption by these routes.

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW:

Poison. May be fatal or cause blindness if swallowed. Causes severe eye irritation. Causes skin irritation. May cause teratogenic effects. At elevated temperatures may cause irritation of the eyes and respiratory tract. High vapour concentrations may cause drowsiness. See "Other Health Effects" Section. Flammable liquid and vapour. May cause flash fire or explosion. Can decompose at high temperatures forming toxic gases. Contents may develop pressure on prolonged exposure to heat.

POTENTIAL HEALTH EFFECTS

Inhalation:

Contact with mist or spray may cause irritation of mucous membranes, coughing and difficulty in breathing. See "Other Health Effects" Section.

Brenntag Canada Inc.

Denatured Alcohol DA-2D WHMIS Number: 00067007

Page 2 of 8

Date of Revision:

2015 March 24

Skin Contact:

Prolonged and repeated contact may lead to dermatitis. May cause defatting, drying and cracking of the skin. Skin contact can cause irritation, especially under the finger nails (and other confined spaces such

as under rings or watch bands).

Skin Absorption:

May be absorbed through intact skin.

Eye Contact:

Splashes to the eye may cause irritation, redness and pain. Vapours from this product are irritating to the eyes. May cause conjunctivitis.

Ingestion:

This product causes irritation, a burning sensation of the mouth and throat and abdominal pain.

Other Health Effects:

May cause central nervous system (CNS) depression, liver damage, systemic poisoning and death. CNS depression is characterized by headache, dizziness, drowsiness, nausea, vomiting and incoordination. Severe overexposures may lead to coma and possible death due to respiratory failure. Petroleum hydrocarbons pose potential human health risks which may vary from person to person. Solvent abusers exposed to high doses of aromatic solvents show signs of hearing loss as well as damage to the brain, liver and kidney. (3) Liver damage is characterized by the loss of appetite, jaundice (yellowish skin colour), and occasional pain in the upper left-hand side of the abdomen. Signs and symptoms of kidney damage generally progress from oliguria, to blood in the urine, to total renal failure.

Symptoms of ethanol intoxication vary with the alcohol level of the blood. Mild alcohol intoxication occur at blood levels between 0.05%-0.15% and approximately 25% of individuals will show signs of intoxication at these levels. Above 0.15% the person is definitely under the influence of ethanol and 50-95% of individuals at this level are clinically intoxicated. Severe poisoning occurs when the blood ethanol level is 0.3-0.5%. Above 0.5% the individual will be comatose and death can occur. (3) Prolonged abuse of Ethyl Alcohol may cause permanent liver and cardiovascular damage.

Methanol may cause visual disturbances, blindness, photophobia, metabolic acidosis and endocrine effects. Mild blurring of vision to complete blindness may occur, including changes in colour perception and photophobia. Symptoms usually develop 12-18 hours after exposure. Abnormal sensitivity to light is termed photophobia. Metabolic acidosis is a condition that describes a decreased pH and bicarbonate concentration in the body fluids.

4. FIRST AID MEASURES

FIRST AID PROCEDURES

Inhalation:

Move victim to fresh air. Give artificial respiration ONLY if breathing has stopped. Give cardiopulmonary resuscitation (CPR) if there is no breathing AND no pulse. Oxygen administration may be beneficial in this situation but should only be administered by personnel trained in its use. Obtain medical attention IMMEDIATELY.

Skin Contact:

Flush skin with running water for a minimum of 20 minutes. Start flushing while removing contaminated clothing. If irritation persists, repeat flushing. If irritation, redness, or a burning sensation develops and persists, obtain medical attention.

Eye Contact:

Immediately flush eyes with running water for a minimum of 20 minutes. Hold eyelids open during flushing. If irritation persists, repeat flushing. Obtain medical attention.

Ingestion:

Do not attempt to give anything by mouth to an unconscious person. If victim is alert and not convulsing, rinse mouth out and give 1/2 to 1 glass of water to dilute material. IMMEDIATELY contact local Poison Control Centre. Vomiting should only be induced under the direction of a physician or a poison control centre. If spontaneous vomiting occurs, have victim lean forward with head down to avoid breathing in of vomitus, rinse mouth and administer more water. IMMEDIATELY transport victim to an emergency facility.

Note to Physicians:

This product contains materials that may cause severe pneumonitis if aspirated. If ingestion has occurred less than 2 hours earlier, carry out careful gastric lavage; use endotracheal cuff if available, to prevent aspiration. Observe patient for respiratory difficulty from aspiration pneumonitis. Give artificial resuscitation and appropriate chemotherapy if respiration is depressed.

Methanol: When plasma methanol concentrations are higher than 20 mg/dL, when ingested doses are greater than 30 mL, and when there is evidence of acidosis or visual abnormalities, a 10% solution of ethanol in 5% aqueous dextrose, administered intravenously, is a safe, effective antidote. (3)

Medical conditions that may be aggravated by exposure to this product include neurological and cardiovascular disorders, diseases of the skin, eyes or respiratory tract, preexisting liver and kidney disorders.

5. FIRE-FIGHTING MEASURES

2015 March 24

Denatured Alcohol DA-2D

WHMIS Number: 00067007

Page 3 of 8

Date of Revision:

Flashpoint (°C)	Autolgnition Temperature (°C)	Flammability Limits in A	vir (%): UEL		
15 (3)	385 (3)	1.0 (3)	36 (3)		
Flammability Class (WHMIS):	B-2: Flammable Liquid				
Hazardous Combustion Products:	Thermal decomposition products are toxic and may include formaldehyde, oxides of carbon and irritating gases.				
Unusual Fire or Explosion Hazards:	Vapours from this product are heavier than air, and may "travel" to a source of ignition (eg. pilot lights, heaters, electric motors) some distance away, and then "flash back" to the point of product discharge causing an explosion and fire. Closed containers exposed to heat may explode. Enforce NO SMOKING rules.				
Sensitivity to Mechanical Impact:	Not expected to be sensitive to mechanical impact.				
Rate of Burning:	Not available.				
Explosive Power:	Not available.				
Sensitivity to Static Discharge:	Not expected to be sensitive to static discharge.				
EXTINGUISHING MEDIA					
Fire Extinguishing Media:	Foam. Use carbon dioxide or dry chemical media for small fires. If only water is available, use it in the form of a fog. This material may produce a floating fire hazard in extreme fire conditions.				
FIRE FIGHTING INSTRUCTIONS					
Instructions to the Fire Fighters:	Use water spray to cool fire-exposed containers or structures. Use water spray to disperse vapours; reignition is possible. Isolate materials that are not involved in the fire and protect personnel. Cool containers with flooding quantities of water until well after the fire is out. Spilled material may cause floors and contact surfaces to become slippery.				
Fire Fighting Protective Equipment:	Use self-contained breathing apparatus and protective clothing.				

6. ACCIDENTAL RELEASE MEASURES

Information in this section is for responding to spills, leaks or releases in order to prevent or minimize the adverse effects on persons, property and the environment. There may be specific reporting requirements associated with spills, leaks or releases, which change from region to region.

Containment and Clean-Up

Procedures:

In all cases of leak or spill contact vendor at Emergency Number shown on the front page of this MSDS. Wear protective clothing. Do not use combustible materials such as sawdust as an absorbent. Eliminate all sources of ignition. Collect product for recovery or disposal. For release to land, or storm water runoff, contain discharge by constructing dikes or applying inert absorbent; for release to water, utilize damming and/or water diversion to minimize the spread of contamination. Ventilate enclosed spaces. Notify applicable government authority if release is reportable or could adversely affect the environment.

7. HANDLING AND STORAGE

HANDLING

Handling Practices:

Ground and bond equipment and containers to prevent a static charge buildup. Use spark-resistant tools and avoid "splash-filling" of containers. Use normal "good" industrial hygiene and housekeeping practices. Containers exposed to heat may be under internal pressure. These should be cooled and carefully vented before opening. A face shield and apron should be worn. Vent container frequently, and more often in warm weather, to relieve pressure. Enforce NO SMOKING rules in area of use.

Ventilation Requirements:

See Section 8, "Engineering Controls".

Other Precautions:

Use only with adequate ventilation and avoid breathing vapours and aerosols Avoid contact with eyes, skin or clothing. Wash thoroughly with soap and water after handling. Wash contaminated clothing thoroughly before re-use. Do not use cutting or welding torches on empty drums that contained this material/product. Store wiping rags and similar material in metal cans with tight fitting lids.

STORAGE

Storage Temperature (°C):

See below.

Ventilation Requirements:

Ventilation should be explosion proof.

Denatured Alcohol DA-2D

WHMIS Number: 00067007

Page 4 of 8

Date of Revision:

2015 March 24

Storage Requirements:

Store in a cool, well-ventilated area. Keep away from heat, sparks and flames. Keep containers closed. Do not expose sealed containers to temperatures above 40° C. Avoid moisture contamination. Protect from direct sunlight. Protect against physical damage.

Special Materials to be Used for Packaging or Containers:

Confirm suitability of any material before using

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Recommendations listed in this section indicate the type of equipment, which will provide protection against overexposure to this product. Conditions of use, adequacy of engineering or other control measures, and actual exposures will dictate the need for specific protective devices at your workplace

ENGINEERING CONTROLS

Engineering Controls:

Local exhaust ventilation required. Ventilation should be explosion proof. Make up air should be supplied to balance air that is removed by local or general exhaust ventilation. Ventilate low lying areas such as sumps or pits where dense vapours may collect.

For personnel entry into confined spaces (i.e. bulk storage tanks) a proper procedure must be followed. It must include consideration of, among other things, ventilation, testing of tank atmosphere, provision and maintenance of SCBA, and emergency rescue. Use the "buddy" system. The second person should be in view and trained and equipped to execute a rescue. (6)

PERSONAL PROTECTIVE **EQUIPMENT (PPE)**

Eye Protection:

Safety glasses with side shields are recommended to prevent eye contact. Use chemical safety goggles when there is potential for eye contact. Contact lenses should not be worn when working with this

Skin Protection:

Gloves and protective clothing made from butyl rubber should be impervious under conditions of use.

Discard contaminated gloves. Prior to use, user should confirm impermeability.

Respiratory Protection:

No specific guidelines available. Do not use compressed oxygen in hydrocarbon atmospheres. A NIOSH/MSHA-approved air-purifying respirator equipped with organic vapour cartridges for concentrations up to 1 000 ppm. An air-supplied respirator if concentrations are higher or unknown.

If while wearing a respiratory protection, you can smell, taste or otherwise detect anything unusual, or in the case of a full facepiece respirator you experience eye irritation, leave the area immediately. Check to make sure the respirator to face seal is still good. If it is, replace the filter, cartridge or canister. If the seal is no longer good, you may need a new respirator. (6)

Other Personal Protective

Equipment:

Wear an impermeable apron and boots. Locate safety shower and eyewash station close to chemical handling area. Take all precautions to avoid personal contact. Clothing and footwear that is fire retardant and dissipates static electrical charges should be worn when handling flammable materials. Natural fibers (cotton, wool, leather and linen) should be selected in favour of synthetic materials (rayon, nylon and polyester).

Skin Notation: Contact with skin, eyes and mucous membranes can contribute to the overall exposure and may invalidate the TLV. Consider measures to prevent absorption by these routes.

EXPOSURE GUIDELINES

SUBSTANCE	ACGIH TLV	OSHA PEL		NIOSH REL	
	(STEL)	(TWA)	(STEL)	(TWA)	(STEL)
Ethanol	1000 ppm	1 000 ppm	- 	1 000 ppm	-
Methanol	250 ppm (Skin)	200 ppm		200 ppm (Skin)	250 ppm (Skin)

9. PHYSICAL AND CHEMICAL PROPERTIES (Not intended as Specifications)

Physical State:

Liquid.

Appearance:

Clear, colourless liquid.

Odour:

Mild alcohol odour.

Odour Threshold (ppm):

Not available.

Boiling Range (°C):

76.6. (3)

Melting/Freezing Point (°C):

Not available.

Vapour Pressure (mm Hg at 20° C):

Not available.

Vapour Density (Air = 1.0):

Not available.

Denatured Alcohol DA-2D

WHMIS Number: 00067007

Page 5 of 8

Brenntag Canada Inc.

Date of Revision:

2015 March 24

Relative Density (g/cc):

0.808. (3)

Bulk Density:

Not available.

Viscosity:

Not applicable.

Evaporation Rate (Butyl Acetate = 1.0):

1.7. (3)

Solubility:

Partially soluble in water.

% Volatile by Volume:

100

pH:

Not applicable.

Coefficient of Water/Oil Distribution:

Separates from oil. (3).

Volatile Organic Compounds (VOC):

100 %. (3)

Flashpoint (°C):

15 (3)

10. STABILITY AND REACTIVITY

CHEMICAL STABILITY

Under Normal Conditions:

Stable.

Under Fire Conditions:

Flammable.

Hazardous Polymerization:

Will not occur.

Conditions to Avoid:

High temperatures, sparks, open flames and all other sources of ignition.

Materials to Avoid:

Strong oxidizers. Lewis or mineral acids. Sulphuric Acid. Nitric Acid. Silver. Alkali metals. Phosphorous. Acid Anhydrides. Hydrogen Peroxide. Bromine pentafluoride. Bromides. Disulfuryl Difluoride. Potassium tert-Butoxide. Acid Chlorides. Oxide. Mixtures or reactions of alcohols with the following materials may cause explosions: barium perchlorate, chlorine, hypochlorous acid, ethylene oxide, hexamethylene diisocyanate and other isocyanates, nitrogen tetroxide, permonosulfuric acid and tri-isobutyl aluminum.

(4)

Decomposition or Combustion

Products:

Thermal decomposition products are toxic and may include formaldehyde, oxides of carbon and irritating

gases

11. TOXICOLOGICAL INFORMATION

TOXICOLOGICAL DATA:

LD50 (Oral, Rat)	LD50 (Dermal, Rabbit)	LC50 (Inhalation, Rat, 4h)		
7 060 mg/kg (1,3)	20 000 mg/kg (3)	31 623 ppm (3)		
5 600 mg/kg (1)	15 800 mg/kg (1)	64 000 ppm (1)		
The ingredient(s) of this product is (are) not classed as carcinogenic by ACGIH, IARC, OSHA or NTP. See "Other Studies Relevant to Material".				
No adverse reproductive effects are anticipated.				
No adverse mutagenic effects are anticipated.				
Methanol may cause teratogenic/embryotoxic effects based on studies in laboratory animals. See "Other Studies Relevant to Material".				
Current information is insufficient to conclude that ethanol is an occupational skin sensitizer. No firm conclusions can be drawn based on the 3 occupational case reports and negative results have been obtained in animal tests. (4)				
	7 060 mg/kg (1,3) 5 600 mg/kg (1) The ingredient(s) of this product is (See "Other Studies Relevant to Mar No adverse reproductive effects are a Methanol may cause teratogenic/en Studies Relevant to Material". Current information is insufficient to conclusions can be drawn based or	7 060 mg/kg (1,3) 20 000 mg/kg (3) 5 600 mg/kg (1) 15 800 mg/kg (1) The ingredient(s) of this product is (are) not classed as carcinogenic because "Other Studies Relevant to Material". No adverse reproductive effects are anticipated. No adverse mutagenic effects are anticipated. Methanol may cause teratogenic/embryotoxic effects based on studies Studies Relevant to Material". Current information is insufficient to conclude that ethanol is an occupational case reports a		

Synergistic Materials:

Alcohols may interact synergistically with chlorinated solvents (example - carbon tetrachloride,

chloroform, bromotrichloromethane), dithiocarbamates (example - disulfiram), dimethylnitrosamine and

thioacetamide. (6)

Denatured Alcohol DA-2D

WHMIS Number: 00067007

Page 6 of 8

Date of Revision:

2015 March 24

Brenntag Canada Inc.

Other Studies Relevant to Material:

Ethyl Alcohol: There is no evidence of developmental toxicity following occupational exposure to ethanol. Animal evidence clearly demonstrates that ingestion of ethanol can cause embryotoxicity, teratogenicity and fetotoxicity, but only in the presence of maternal toxicity. It is well documented that exposure to ethanol through the ingestion of alcoholic beverages during pregnancy can cause significant harmful effects in unborn children. These effects are not considered relevant to occupational exposure. (4)

There is no evidence of reproductive toxicity following occupational exposure to ethanol. Effects on reproductive organs, including decreased testicular weight, decreased numbers of motile sperm, decreased ovarian function and irregular fertility cycles, have been observed in animals given very large oral doses of ethanol. However, no confirmed effects on fertility or reproductive capability have been observed. Reproductive effects have been observed in people who have consumed large amounts of alcoholic beverages. These effects are not considered relevant to occupational exposures. (4)

Ethanol has caused mutagenic effects in tests using live animals. However, these effects have generally been observed at very high oral doses and the observations are not considered relevant to an occupational setting. There are no reports of mutagenic effects in people with occupational exposures. Reports of mutagenic effects in people who abuse alcoholic beverages are not considered relevant to occupational exposures. (4)

Methanol caused moderate skin and eye irritation in animal tests. A well-conducted oral study using rats suggests that methanol may be carcinogenic, but further studies are required before firm conclusions can be drawn. Limited inhalation studies using mice, rats and monkeys have not shown carcinogenicity. (4)

Methanol has produced fetotoxicity in rats and teratogenicity in mice exposed by inhalation to high concentrations that did no produce significant maternal toxicity. Mice were exposed by inhalation to 1000, 2000, 5000, 7500, 10000, or 15000 ppm of days 6-15 of pregnancy (7 hr/d). No visible signs of maternal toxicity were noted, but 1/30-40 mothers died in each group exposed to 7500 ppm and above. There was a dose-related significant decrease in the number of live pups/litter (post implantation mortality) at 7500 ppm and above. A significant increase in malformations (e.g. cleft palate, exencephaly, skeletal anomalies) was observed at 5000 ppm and above. Fetal body weights were significantly reduced at 10000 ppm and higher. (4)

12. ECOLOGICAL INFORMATION

Ecotoxicity:

Not available. May be harmful to aquatic life.

Environmental Fate:

Not available. Can be dangerous if allowed to enter drinking water intakes. Do not contaminate domestic or irrigation water supplies, lakes, streams, ponds, or rivers.

13. DISPOSAL CONSIDERATIONS

Deactivating Chemicals:

None required.

Waste Disposal Methods:

This information applies to the material as manufactured. Reevaluation of the product may be required by the user at the time of disposal since the product uses, transformations, mixtures and processes may influence waste classification. Dispose of waste material at an approved (hazardous) waste treatment/disposal facility in accordance with applicable local, provincial and federal regulations. Do not

dispose of waste with normal garbage, or to sewer systems.

Safe Handling of Residues:

See "Waste Disposal Methods".

Disposal of Packaging:

Empty containers retain product residue and can be dangerous. Empty drums should be completely drained, properly bunged and promptly returned to a drum reconditioner. Do not expose such containers to heat, flame, sparks, static electricity, or other sources of ignition; they may explode and cause injury or death. Dispose of waste material at an approved (hazardous) waste treatment/disposal facility in accordance with applicable local, provincial and federal regulations.

14. TRANSPORTATION INFORMATION

CANADIAN TDG ACT SHIPPING DESCRIPTION:

ALCOHOLS, FLAMMABLE, TOXIC, N.O.S. (Ethanol, Methanol), Class 3(6.1), UN1986, PG II.

Label(s): Flammable Liquids, Toxic Substances.

Placard: Flammable Liquids.

ERAP Index: ----.

Exemptions: None known.

Brenntag Canada Inc. Denatured Alcohol DA-2D WHMIS Number: 00067007 2015 March 24

Date of Revision:

Page 7 of 8

US DOT CLASSIFICATION (49CFR 172.101, 172.102):

ALCOHOLS, FLAMMABLE, TOXIC, N.O.S. (Ethanol, Methanol), Class 3(6.1), UN1986, PG II.

Label(s): Flammable Liquid, Poison. Placard: Flammable Liquid.

CERCLA-RQ: Ethyl Alcohol: 5

000 lb / 2 270 kg.

Exemptions: None known.

15. REGULATORY INFORMATION

CANADA

CEPA - NSNR:

All components of this product are included on the DSL.

CEPA - NPRI:

Methanol.

Controlled Products Regulations Classification (WHMIS):

B-2: Flammable Liquid D-1B: Toxic (acute effects) D-2A: Very Toxic (teratogen) D-2B: Toxic (skin and eye irritant)

USA

Environmental Protection Act:

All components of this product are included on the TSCA inventory.

OSHA HCS (29CFR 1910.1200): Flammable Liquid. Toxic. Teratogenic and Embryotoxic. Skin and Eye Irritant.

NFPA: Health, Fire, Reactivity (Not available.) HMIS: Health, Fire, Reactivity (Not available.)

INTERNATIONAL

Not available.

16. OTHER INFORMATION

REFERENCES

- 1. RTECS-Registry of Toxic Effects of Chemical Substances, Canadian Centre for Occupational Health and Safety RTECS
- Clayton, G.D. and Clayton, F.E., Eds., Patty's Industrial Hygiene and Toxicology, 3rd ed., Vol. IIA,B,C, John Wiley and Sons, New York, 1981.
- 3. Supplier's Material Safety Data Sheet(s).
- 4. CHEMINFO chemical profile, Canadian Centre for Occupational Health and Safety, Hamilton, Ontario, Canada.
- 5. Guide to Occupational Exposure Values, 2011, American Conference of Governmental Industrial Hygienists, Cincinnati, 2011.
- Regulatory Affairs Group, Brenntag Canada Inc.
- The British Columbia Drug and Poison Information Centre, Poison Managements Manual, Canadian Pharmaceutical Association, Ottawa, 1981.

The information contained herein is offered only as a guide to the handling of this specific material and has been prepared in good faith by technically knowledgeable personnel. It is not intended to be all-inclusive and the manner and conditions of use and handling may involve other and additional considerations. No warranty of any kind is given or implied and Brenntag Canada Inc. will not be liable for any damages, losses, injuries or consequential damages which may result from the use of or reliance on any information contained herein. This Material Safety Data Sheet is valid for three years.

To obtain revised copies of this or other Material Safety Data Sheets, contact your nearest Brenntag Canada Regional office.

British Columbia: 20333-102B Avenue, Langley, BC, V1M 3H1 Phone: (604) 513-9009 Facsimile: (604) 513-9010

Alberta: 6628 - 45 th. Street, Leduc, AB, T9E 7C9

Phone: (780) 986-4544 Facsimile: (780) 986-1070

Manitoba: 681 Plinguet Street, Winnipeg, MB, R2J 2X2

Denatured Alcohol DA-2D WHMIS Number: 00067007

Page 8 of 8

Phone: (204) 233-3416

Facsimile: (204) 233-7005

Ontario: 43 Jutland Road, Toronto, ON, M8Z 2G6 Phone: (416) 259-8231 Facsimile: (416) 259-5333

Quebec: 2900 Jean Baptiste Des., Lachine, PQ, H8T 1C8 Phone: (514) 636-9230 Facsimile: (514) 636-0877

Atlantic: A-105 Akerley Boulevard, Dartmouth, NS, B3B 1R7 Phone: (902) 468-9690 Facsimile: (902) 468-3085

Prepared By: Regulatory Affairs Group, Brenntag Canada Inc., (416) 259-8231.

Brenntag Canada Inc.

Date of Revision:

2015 March 24