SECTION 1 - IDENTIFICATION

1.1 Product Identifier

Product Name : *Per-Fix™ for Vinyl*

Manufacturer Product Number : *6405AAA, 6405AA, 6405A, 6405B, 6405C*

1.2 Other Means of Identification

Other Identifiers : *Flaw Repair*

1.3 Relevant Identified Uses of the Substance or Mixture and Uses Advised Against

Recommended Use : *Touch-up coating for molded plastic parts.*

Restrictions on Use : *None Identified*

1.4 Supplier Details

	Manufacturer Details	Supplier Details
Company Name	*Chem-Pak Inc*	*Chem-Pak Inc*
Address	*242 Corning Way, Martinsburg, WV 25405 - United States*	*242 Corning Way, Martinsburg, WV 25405 - United States*
Phone Number	*304-262-1880*	*304-262-1880*
Fax Number	*304-262-9643*	*304-262-9643*
Email	*msds@chem-pak.com*	
Website	*http://www.chem-pak.com*	

1.5 24 hr Emergency Phone Number

Emergency Number : *ChemTel: 800-255-3924 (North America)*

SECTION 2 - HAZARDS IDENTIFICATION

2.1 Classification of the Substance or Mixture

Flam. Aerosol 1	*H222*	*Physical Hazards*	*Flammable aerosols, Category 1*
Skin Irrit. 2	*H315*	*Health Hazards*	*Skin corrosion/irritation, Category 2*
Eye Irrit. 2a	*H319*	*Health Hazards*	*Serious eye damage/eye irritation, Category 2A*
Muta. 1b	*H340*	*Health Hazards*	*Germ cell mutagenicity, Category 1B*
Carc. 1b	*H350*	*Health Hazards*	*Carcinogenicity, Category 1B*
Repr. 2	*H361*	*Health Hazards*	*Reproductive toxicity, Category 2*
Stot Se 3	*H336*	*Health Hazards*	*Specific target organ toxicity — Single exposure, Category 3, Narcosis*
Stot Re 2	*H373*	*Health Hazards*	*Specific target organ toxicity — Repeated exposure, Category 2*
Aquatic Acute 3	*H402*	*Environmental Hazards*	*Hazardous to the aquatic environment — Acute Hazard, Category 3*

2.2 Label Elements

Hazard Pictograms

GHS02 *GHS07* *GHS08*

Signal Word ***Danger***

Hazard Statements

H222 : *Extremely flammable aerosol.*

H315 : *Causes skin irritation.*

H319 : *Causes serious eye irritation.*

H336 : *May cause drowsiness or dizziness.*

H340 : *May cause genetic defects.*

H350 : *May cause cancer.*

	H361	: *Suspected of damaging fertility or the unborn child.*
	H373	: *May cause damage to organs through prolonged or repeated exposure.*
	H402	: *Harmful to aquatic life*
Precautionary Statements	*P202*	: *Do not handle until all safety precautions have been read and understood.*
	P210	: *Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.*
	P211	: *Do not spray on an open flame or other ignition source.*
	P251	: *Do not pierce or burn, even after use.*
	P260	: *Do not breathe spray.*
	P264	: *Wash hands thoroughly after handling.*
	P271	: *Use only outdoors or in a well-ventilated area.*
	P273	: *Avoid release to the environment.*
	P280	: *Wear protective gloves and eye protection.*
	P302+P352	: *IF ON SKIN: Wash with plenty of water.*
	P304+P340	: *IF INHALED: Remove person to fresh air and keep comfortable for breathing.*
	P305+P351+P338	: *IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.*
	P308+P313	: *If exposed or concerned: Get medical advice/attention*
	P314	: *Get medical advice/attention if you feel unwell.*
	P332+P313	: *If skin irritation occurs: Get medical advice/attention.*
	P337+P313	: *If eye irritation persists: Get medical advice/attention.*
	P362+P364	: *Take off contaminated clothing and wash it before reuse.*
	P403+P233	: *Store in a well-ventilated place. Keep container tightly closed.*
	P405	: *Store locked up.*
	P410+P412	: *Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.*
	P501	: *Dispose of contents/container to applicable regulations*

2.3 Other Hazards Which Do Not Result In Classification

Hazards Not Otherwise Classified : *None Identified.*

SECTION 3 - COMPOSITION / INFORMATION ON INGREDIENTS

3.1 Substance / Mixture

Substance / Mixture : *Mixture*

3.2 Composition

Substance name	CAS Number	% wt*	Classification
Ethyl Acetate	*141-78-6*	*10 - 30*	*Flam. Liq. 2, H225* *Eye Irrit. 2A, H319* *STOT SE 3, H336*
Methyl Ethyl Ketone	*78-93-3*	*10 - 30*	*Flam. Liq. 2, H225* *Eye Irrit. 2A, H319* *STOT SE 3, H336*
Propane	*74-98-6*	*10 - 30*	*Flam. Gas 1, H220* *Press. Gas (Diss.), H280*
Xylene	*1330-20-7*	*10 - 30*	*Flam. Liq. 3, H226* *Acute Tox. 4 (Dermal), H312* *Acute Tox. 4 (Inhalation), H332* *Skin Irrit. 2, H315* *Asp. Tox. 1, H304* *Aquatic Acute 2, H401*
N-Butane	*106-97-8*	*5 - 10*	*Flam. Gas 1, H220* *Press. Gas (Diss.), H280*
Isobutane	*75-28-5*	*5 - 10*	*Flam. Gas 1, H220* *Press. Gas (Diss.), H280*

Substance name	CAS Number	% wt*	Classification
Light Aromatic Solvent Naphtha	*64742-95-6*	*1 - 5*	*Flam. Liq. 3, H226* *Muta. 1B, H340* *Carc. 1B, H350* *Asp. Tox. 1, H304* *Aquatic Acute 3, H402*
Ethylbenzene	*100-41-4*	*1.32*	*Flam. Liq. 2, H225* *Acute Tox. 4 (Inhalation), H332* *Acute Tox. 4 (Inhalation:vapour), H332* *Carc. 2, H351* *STOT RE 2, H373* *Asp. Tox. 1, H304* *Aquatic Acute 2, H401*
1,2,4-Trimethyl Benzene	*95-63-6*	*1 - 5*	*Flam. Liq. 3, H226* *Acute Tox. 4 (Inhalation), H332* *Acute Tox. 4 (Inhalation:vapour), H332* *Skin Irrit. 2, H315* *Eye Irrit. 2, H319* *STOT SE 3, H335* *Aquatic Acute 2, H401* *Aquatic Chronic 2, H411*
Toluene	*108-88-3*	*0.1 - 1*	*Flam. Liq. 2, H225* *Skin Irrit. 2, H315* *Repr. 2, H361* *STOT SE 3, H336* *STOT RE 2, H373* *Asp. Tox. 1, H304* *Aquatic Acute 2, H401*

Full text of hazard classes and H-statements : see section 16

**Chemical name, CAS number and/or exact concentration have been withheld as a trade secret*

SECTION 4 - FIRST-AID MEASURES

4.1 Description of First-Aid Measures

General Measures : *If exposed or concerned: Get medical advice/attention.*

Inhalation : *Remove person to fresh air and keep comfortable for breathing.*

Skin Contact : *Wash skin with plenty of water. Take off contaminated clothing. If skin irritation occurs: Get medical advice/attention.*

Eye Contact : *Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.*

Ingestion : *Call a poison center or a doctor if you feel unwell.*

First-Aid Responder Protection : *Wear adequate personal protective equipment based on the nature and severity of the emergency.*

4.2 Most Important Symptoms and Effects, Both Acute and Delayed

Symptoms of Exposure : *Eye Irritation, Nose Irritation, Throat Irritation, Dermatitis, Confusion, Skin Irritation, Headache, Dizziness, Nausea, Narcosis, Drowsiness, Vomiting, Optical Nerve Damage, Cough, Chest Tightness, Mucous Membrane, Diarrhea.*

Delayed Effects : *No known delayed effects.*

Immediate Effects : *No known immediate effects.*

Chronic Effects : *Repeated or prolonged contact may cause skin sensitization.*

Target Organs : *Central Nervous System, Eyes, Liver, Nasal Cavity, Reproductive System, Respiratory System, Skin, Kidneys.*

4.3 Indication of Immediate Medical Attention and Special Treatment

Notes to Physician : *Treat symptomatically.*

Specific Treatments/Antidotes : *No Information Available.*

Medical Conditions Aggravated : *May aggravate personnel with pre-existing disorders associated with any of the Target Organs.*

SECTION 5 - FIRE-FIGHTING MEASURES

5.1 Suitable Extinguishing Media

Extinguishing Media : *Water, carbon dioxide, dry chemical, universal aqueous film forming foam.*

Unsuitable Media : *Water jet.*

5.2 Specific Hazards Arising from the Chemical or Mixture

Hazardous Combustion Products : *Decomposition products may include: oxides of carbon, smoke, vapours. See also Section 10.6.*

Specific Hazards During Firefighting : *Extremely flammable. Contents under pressure. In a fire or if heated, a pressure increase will occur which may result in container bursting. Vapours heavier than air may spread along the ground and travel to an ignition source.*

5.3 Special Protective Actions for Fire-Fighters

Firefighting Instructions : *Use water spray to cool fire exposed aerosol containers, as contents can rupture violently from heat developed pressure.*

Protection during Firefighting : *Firemen should wear self-contained breathing apparatus with full face-piece operated in positive pressure mode.*

SECTION 6 - ACCIDENTAL RELEASE MEASURES

6.1 Personal Precautions, Protective Equipment and Emergency Procedures

For Non-Emergency Personnel : *No action should be taken involving any personnel without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spill. Remove ignition sources and provide adequate ventilation only if it is safe to do so.*

For Emergency Personnel : *Use personal protection as recommended in Section 8. Observe precautions provided for non-emergency personnel above.*

6.2 Environmental Precautions

Environmental Precautions : *Keep out of drains, sewers, ditches, and waterways. Minimize use of water to prevent environmental contamination.*

6.3 Methods and Materials for Containment and Cleaning up

Containment Procedures : *Product is an aerosol, therefore spills and leaks are unlikely. In case of rupture, released content may be contained with oil/solvent absorbent pads, socks, and/or absorbents.*

Cleanup Procedures : *Spills from aerosol cans are unlikely and are generally of small volume. Large spills are therefore not normally considered a problem. In case of actual rupture, avoid breathing vapors and ventilate area well. Remove sources of ignition and use non-sparking equipment. Soak up material with inert absorbent and place in safety containers for proper disposal.*

Other Information : *Aerosol products represent a limited hazard and will not spill or leak unless ruptured. In case of rupture contents are generally evacuated from the can rapidly. Area should be ventilated immediately and continuous ventilation provided until all fumes and vapors have been removed. Aerosol cans should never be incinerated or burned.*

Prohibited Materials : *Combustible absorbent material such as sawdust. Use of equipment that may cause sparking.*

SECTION 7 - HANDLING AND STORAGE

7.1 Precautions for Safe Handling

General Handling Precautions : *KEEP OUT OF THE REACH OF CHILDREN. Avoid prolonged or repeated skin contact. Avoid breathing of vapors. Do not incinerate (burn) containers. Always replace overcap when not in use. Avoid use around open flames or other sources of ignition. Exposure to heat or prolonged exposure to sun may cause can to burst. Use only with adequate ventilation, opening doors or windows to achieve cross-ventilation.*

Hygiene Recommendations : *Do not eat, drink or smoke when using this product. Wash hands thoroughly after use. Remove contaminated clothing and protective equipment before entering eating or smoking areas.*

7.2 Conditions for Safe Storage Including Any Incompatibilities

Storage Requirements : *Storage of individual cans should be done in an area below 55°C (120 °F), and away from heat sources. Ensure can is in a secure place to prevent knocking over and accidental rupture.*

Incompatibilities : *Segregate storage away from materials indicated in Section 10.*

SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control Parameters

N-Butane (106-97-8)		
Canada (Alberta)	*OEL TWA (ppm)*	*1000 ppm*
Canada (British Columbia)	*OEL TWA (ppm)*	*600 ppm*
Canada (British Columbia)	*OEL Ceiling (ppm)*	*750 ppm*
Canada (Ontario)	*OEL TWA (ppm)*	*800 ppm*
Canada (Quebec)	*VEMP (ppm)*	*800 ppm*
Canada (Quebec)	*VEMP (mg/m³)*	*1900 mg/m³*
USA (ACGIH)	*ACGIH TWA (mg/m³)*	*1000 ppm*
USA (ACGIH)	*ACGIH Ceiling (mg/m³)*	*1000 ppm*

Propane (74-98-6)		
Canada (Alberta)	*OEL TWA (ppm)*	*1000 ppm*
Canada (British Columbia)	*OEL TWA (ppm)*	*1000 ppm*
Canada (Ontario)	*OEL TWA (ppm)*	*1000 ppm*
Canada (Quebec)	*VEMP (ppm)*	*1000 ppm*
Canada (Quebec)	*VEMP (mg/m³)*	*1800 mg/m³*

Isobutane (75-28-5)		
Canada (Ontario)	*OEL TWA (ppm)*	*800 ppm*
USA (ACGIH)	*ACGIH TWA (mg/m³)*	*1000 ppm*

Ethyl Acetate (141-78-6)		
Canada (Alberta)	*OEL TWA (ppm)*	*400 ppm*
Canada (Alberta)	*OEL TWA (mg/m³)*	*1440 mg/m³*
Canada (British Columbia)	*OEL TWA (ppm)*	*150 ppm*
Canada (Ontario)	*OEL TWA (ppm)*	*400 ppm*
Canada (Quebec)	*VEMP (ppm)*	*400 ppm*
Canada (Quebec)	*VEMP (mg/m³)*	*1440 mg/m³*
USA (ACGIH)	*ACGIH TWA (mg/m³)*	*400 ppm*

Methyl Ethyl Ketone (78-93-3)		
Canada (Alberta)	*OEL TWA (ppm)*	*200 ppm*
Canada (Alberta)	*OEL TWA (mg/m³)*	*590 mg/m³*
Canada (Alberta)	*OEL STEL (ppm)*	*300 ppm*
Canada (Alberta)	*OEL STEL (mg/m³)*	*885 mg/m³*
Canada (British Columbia)	*OEL TWA (ppm)*	*50 ppm*
Canada (British Columbia)	*OEL STEL (ppm)*	*100 ppm*
Canada (Ontario)	*OEL TWA (ppm)*	*200 ppm*
Canada (Ontario)	*OEL STEL (ppm)*	*300 ppm*
Canada (Quebec)	*VECD (ppm)*	*100 ppm*
Canada (Quebec)	*VECD (mg/m³)*	*300 mg/m³*
Canada (Quebec)	*VEMP (ppm)*	*50 ppm*
Canada (Quebec)	*VEMP (mg/m³)*	*150 mg/m³*
USA (ACGIH)	*ACGIH TWA (mg/m³)*	*200 ppm*
USA (ACGIH)	*ACGIH Ceiling (mg/m³)*	*300 ppm*
Biological Exposure Index	*MEK in Urine, End of shift*	*2 mg/l*

Toluene (108-88-3)		
Canada (Alberta)	*OEL TWA (ppm)*	*50 ppm*
Canada (Alberta)	*OEL TWA (mg/m³)*	*188 mg/m³*
Canada (British Columbia)	*OEL TWA (ppm)*	*20 ppm*
Canada (Ontario)	*OEL TWA (ppm)*	*20 ppm*
Canada (Quebec)	*VEMP (ppm)*	*50 ppm*
Canada (Quebec)	*VEMP (mg/m³)*	*188 mg/m³*
USA (ACGIH)	*ACGIH TWA (mg/m³)*	*20 ppm*
USA (ACGIH)	*ACGIH Ceiling (mg/m³)*	*150 ppm*
Biological Exposure Index	*Toluene in blood, Prior to last shift of workweek*	*0.02 mg/l*
Biological Exposure Index	*Toluene in urine, End of shift*	*0.03 mg/l*
Biological Exposure Index	*o-Cresol in urine (with hydrolysis), End of shift (B)*	*0.3 mg/g creatinine*

Xylene (1330-20-7)		
Canada (Alberta)	*OEL TWA (ppm)*	*100 ppm*
Canada (Alberta)	*OEL TWA (mg/m³)*	*434 mg/m³*
Canada (British Columbia)	*OEL TWA (ppm)*	*100 ppm*
Canada (British Columbia)	*OEL STEL (ppm)*	*150 ppm*
Canada (Ontario)	*OEL TWA (ppm)*	*100 ppm*
Canada (Ontario)	*OEL STEL (ppm)*	*150 ppm*
USA (ACGIH)	*ACGIH TWA (mg/m³)*	*100 ppm*
USA (ACGIH)	*ACGIH Ceiling (mg/m³)*	*150 ppm*
Biological Exposure Index	*Methylhippuric Acid in Urine (Post Shift), End of shift*	*1.5 g/g creatinine*

Ethylbenzene (100-41-4)		
Canada (Alberta)	*OEL TWA (ppm)*	*100 ppm*
Canada (Alberta)	*OEL TWA (mg/m³)*	*434 mg/m³*
Canada (Alberta)	*OEL Ceiling (ppm)*	*125 ppm*
Canada (Alberta)	*OEL Ceiling (mg/m³)*	*543 mg/m³*
Canada (British Columbia)	*OEL TWA (ppm)*	*20 ppm*
Canada (Ontario)	*OEL TWA (ppm)*	*20 ppm*
Canada (Quebec)	*VECD (ppm)*	*125 ppm*
Canada (Quebec)	*VECD (mg/m³)*	*543 mg/m³*
Canada (Quebec)	*VEMP (ppm)*	*100 ppm*
Canada (Quebec)	*VEMP (mg/m³)*	*434 mg/m³*
USA (ACGIH)	*ACGIH TWA (mg/m³)*	*20 ppm*
Biological Exposure Index	*Sum of Mandelic Acid and Phenyl Glyoxylic Acid in Urine, End of shift at end of workweek*	*0.7 g/g creatinine*

1,2,4-Trimethyl Benzene (95-63-6)		
USA (ACGIH)	*ACGIH TWA (mg/m³)*	*25 ppm*

8.2 Exposure Controls

Engineering Measures : *Use only with adequate ventilation. General ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. Local exhaust ventilation or an enclosed handling system may be necessary to control air contamination below that of the lowest OEL from the table above.*

Personal Protective Equipment

Eye / Face Protection : *Safety glasses with side shields are recommended as a minimum for any type of industrial chemical handling. Where eye contact with this material could occur, chemical splash proof goggles are recommended.*

Hand Protection : *Chemical-resistant gloves, tested according to EN 374.*

Remarks : *Choose gloves to protect hands against chemicals depending on the concentration and quantity of the hazardous substance and specific to the place of work.*

Skin and Body Protection : *For brief contact, no precautions other than clean body-covering clothing should be needed. When prolonged or repeated contact could occur, use protective clothing impervious to the ingredients listed in Section 2.*

Respiratory Protection : *An approved respirator with an organic vapor cartridge may be permissible under certain circumstances where airborne concentrations are expected to exceed occupational exposure limits. If needed, wear an appropriate NIOSH approved respirator.*

Compliance : *If needed, wear an appropriate NIOSH approved respirator.*

Other Protective Equipment : *Safety showers and eye-wash stations should be available in the workplace near where the material will be used.*

Environmental Exposure Controls : *Avoid release to the environment.*

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

9.1 Physical Properties

Boiling Point	*> 56.90 °C*	Melting / Freezing Point	*> -98.00 °C*
Flash Point, Liquid	*> -20.00 °C*	Flash Point, Propellant	*-104.44 °C*
Explosive Limits	*LEL: 0.80 UEL: 24.60 vol %*	Autoignition Temperature, Liquid	*> 190.00 °C*
Flammability	*Extremely Flammable Aerosol*	Density	*0.760 g/cm³*
Molecular Weight	*Not Available*	Weight	*6.342 lbs/gal*
Vapor Pressure	*Not Available*	pH	*Not Available*
Vapor Density	*Not Available*	Evaporation Rate (nBAc=1)	*Not Available*
Viscosity	*Not Available*	Partition Coefficient (Log Pow)	*Not Available*

Odor Threshold	*Not Available*	Refractive Index	*Not Available*
Physical State	*Pressurized Product*	Heat Of Combustion	*13597.97 BTU/lb*
Appearance / Color	*Clear, Colourless*	Water Solubility	*Not Available*
Odor	*Paint-like*	Decomposition Temperature	*Not Available*

9.2 Environmental Properties

Percent Volatile	*93.17 % wt*	VOC Regulatory	*707.77 g/L (5.91 lbs/gal)*
Percent VOC	*92.09 % wt*	VOC Actual	*699.88 g/L (5.84 lbs/gal)*
Percent HAP	*33.44 % wt*	HAP Content	*254.14 g/L (2.12 lbs/gal)*
Global Warming Potential	*0.79 GWP*	Maximum Incremental Reactivity	*2.0010 g O3/g*
Ozone Depletion Potential	*0.00 ODP*		

SECTION 10 - STABILITY AND REACTIVITY

10.1 Reactivity

Reactivity : *No specific test data related to reactivity is available for this products or its ingredients.*

10.2 Chemical Stability

Chemical Stability : *This product is stable.*

10.3 Possibility of Hazardous Reactions

Hazardous Reactions : *Under normal conditions of storage and use, hazardous reactions are not expected to occur.*

10.4 Conditions to Avoid

Conditions to Avoid : *Electrostatic Discharge, Other Ignition Sources, Hot Surfaces, Heat, Flames, Sparks, Strong Heating.*

10.5 Incompatible Materials

Materials to Avoid : *Strong Oxidizing Agents, Strong Reducing Agents, Alkali Metals, Strong Acids, Aluminum, Potassium t-Butoxide, Halogen Compounds, Bases, Calcium Hypochlorite, Aluminum Chloride, Acids, Hydrogen Peroxide, Magnesium, Sulfuric Acid, Perchloric Acid, Nitrating Agents, Chlorosulfuric Acid, Potassium Chlorate, Heavy Metals and their Salts, Phenols, Performic Acid.*

10.6 Hazardous Decomposition Products

Thermal Decomposition : *Oxides of carbon, Aldehydes, Methanol, Acetic Acid, Peroxybenzoic Acid, Benzoic Acid.*

SECTION 11 - TOXICOLOGICAL INFORMATION

11.1 Information on Toxicological Effects

N-Butane (CAS: 106-97-8 / EC: 203-448-7)	
LC50 Inhalation (Rat)	*658 mg/l/4h (ChemInfo)*
LC50 Inhalation (Rat)	*276000 ppm/4h (ChemInfo)*

Propane (CAS: 74-98-6 / EC: 200-827-9)	
LC50 Inhalation (Rat)	*658 mg/l/4h (Lit.)*

Isobutane (CAS: 75-28-5 / EC: 200-857-2)	
LC50 Inhalation (Rat)	*368000 ppm/4h (ChemInfo)*

Ethyl Acetate (CAS: 141-78-6 / EC: 205-500-4)	
LD50 Oral (Rat)	*5620 mg/kg (RTECS)*
LD50 Dermal (Rabbit)	*> 18000 mg/kg (Sigma-Aldrich)*
LC50 Inhalation (Rat)	*10600 ppm/4h (ChemInfo)*

Methyl Ethyl Ketone (CAS: 78-93-3 / EC: 201-159-0)	
LD50 Oral (Rat)	*2737 mg/kg (Sigma-Aldrich)*
LD50 Dermal (Rabbit)	*6480 mg/kg (RTECS)*
LC50 Inhalation (Rat)	*205 mg/l/4h (ChemInfo)*

Methyl Ethyl Ketone (CAS: 78-93-3 / EC: 201-159-0)	
LC50 Inhalation (Rat)	*30200 ppm/4h (ChemInfo)*

Toluene (CAS: 108-88-3 / EC: 203-625-9)	
LD50 Oral (Rat)	*> 2000 mg/kg (Lit.)*
LD50 Dermal (Rabbit)	*12124 mg/kg (IUCLID)*
LC50 Inhalation (Rat)	*> 20 mg/l/4h (Lit.)*

Xylene (CAS: 1330-20-7 / EC: 215-535-7)	
LD50 Oral (Rat)	*4300 mg/kg (RTECS)*
LD50 Dermal (Rabbit)	*12126 mg/kg (Sigma-Aldrich)*
LC50 Inhalation (Rat)	*21.7 mg/l/4h (GESTIS Substance Database)*
LC50 Inhalation (Rat)	*6700 ppm/4h (ChemInfo)*

Ethylbenzene (CAS: 100-41-4 / EC: 202-849-4)	
LD50 Oral (Rat)	*4720 mg/kg (ChemInfo)*
LD50 Dermal (Rabbit)	*15380 mg/kg (ChemInfo)*
LC50 Inhalation (Rat)	*17.2 mg/l/4h (IUCLID)*
LC50 Inhalation (Rat)	*4000 ppm/4h (ChemInfo)*

Light Aromatic Solvent Naphtha (CAS: 64742-95-6 / EC: 265-199-0)	
LD50 Oral (Rat)	*8400 mg/kg (RTECS)*
LD50 Dermal (Rabbit)	*> 3160 mg/kg (ChemInfo)*
LC50 Inhalation (Rat)	*3670 ppm/4h (Lit.)*

1,2,4-Trimethyl Benzene (CAS: 95-63-6 / EC: 202-436-9)	
LD50 Oral (Rat)	*> 5000 mg/kg (RTECS)*
LD50 Dermal (Rat)	*> 3440 mg/kg (Lit.)*
LC50 Inhalation (Rat)	*18 mg/l/4h (RTECS)*

Routes Of Exposure : *Eye Contact, Ingestion, Skin Contact, Inhalation, Skin Absorption.*

Delayed and Immediate Effects and Also Chronic Effects from Short and Long Term Exposure : *See Section 4.2*

Skin Corrosion/Irritation : *Causes skin irritation.*

Eye Damage/Irritation : *Causes serious eye irritation.*

Respiratory or Skin Sensitization : *Not classified*

Germ Cell Mutagenicity : *May cause genetic defects.*

Reproductive Toxicity : *Suspected of damaging fertility or the unborn child.*

STOT-Single Exposure : *May cause drowsiness or dizziness.*

STOT-Repeated Exposure : *May cause damage to organs through prolonged or repeated exposure.*

Aspiration Hazard : *Not classified*

Vaporizer : *Aerosol*

Carcinogen Data : *The following ingredients are listed as known or suspected carcinogens:*

Ethylbenzene (CAS: 100-41-4 / EC: 202-849-4)	
IARC group	*2B - Possibly carcinogenic to humans*
ACGIH Category	*A3 - Confirmed animal carcinogen with unknown relevance to humans*

SECTION 12 - ECOLOGICAL INFORMATION

12.1 Ecotoxicity and Ecological Properties

n-Butane (106-97-8)	
Persistence and Degradibility	*Readily biodegradable in water.*
Bioconcentration Factor	*33.52*
Log Pow	*2.89*
Bioacculative Potential	*Low potential for bioaccumulation (Log Kow < 4).*
Log Koc	*1.641*

Propane (74-98-6)	
Persistence and Degradibility	*Readily biodegradable in water. Not applicable (gas). Photodegradation in the air.*
BCF Fish	*9 - 25 (BCF)*
Log Pow	*2.28 (Calculated)*
Bioacculative Potential	*Low potential for bioaccumulation (Log Kow < 4).*

Isobutane (75-28-5)	
Persistence and Degradibility	*Readily biodegradable in water. Biodegradable in the soil. Not applicable (gas).*
BCF Fish	*26.62*
Log Pow	*2.76*
Bioacculative Potential	*Low potential for bioaccumulation (BCF < 500).*
Log Koc	*1.545*

Ethyl Acetate (141-78-6)	
LC50 Fish	*450 - 600 mg/l Rainbow Trout - 96hr*
LC50 Fish	*220 - 250 mg/l Fathead Minnow - 96h*
LC50 Other Aquatic Organisms	*560 mg/l Water Flea - 48hr*
EC50 Daphnia	*2300 - 3090 mg/l Water Flea - 24hr*
EC50 Other Aquatic Organisms	*4300 mg/l Green Algae - 24hr*
Persistence and Degradibility	*Readily biodegradable in water. Biodegradable in the soil. Low potential for adsorption in soil.*
Biochemical Oxygen Demand	*0.293 g O_2/g substance*
Chemical Oxygen Demand	*1.69 g O_2/g substance*
Theoretical Oxygen Demand	*1.82 g O_2/g substance*
Biodegration	*100 % 28 Days*
BCF Fish	*30*
Log Pow	*0.73*
Bioacculative Potential	*Low potential for bioaccumulation (BCF < 500).*
Log Koc	*0.778*

Methyl Ethyl Ketone (78-93-3)	
LC50 Fish	*3130 - 3320 mg/l Fathead Minnow - 96h*
EC50 Daphnia	*7060 mg/l Water Flea - 24hr*
Persistence and Degradibility	*Readily biodegradable in water. Biodegradable in the soil. Biodegradable in the soil under anaerobic conditions.*
Biochemical Oxygen Demand	*2.03 g O_2/g substance*
Chemical Oxygen Demand	*2.31 g O_2/g substance*
Theoretical Oxygen Demand	*2.44 g O_2/g substance*
Log Pow	*0.3 (Experimental value; OECD 117: Partition Coefficient (n-octanol/water), HPLC method; 40 °C)*
Bioacculative Potential	*Low potential for bioaccumulation (Log Kow < 4).*
Log Koc	*Koc,34; Calculated value*

Toluene (108-88-3)	
LC50 Fish	*5.8 mg/l Rainbow Trout - 96hr*
LC50 Other Aquatic Organisms	*10 mg/l Green Algae - 72hr*
EC50 Daphnia	*6 mg/l Water Flea - 48hr*
Persistence and Degradibility	*Readily biodegradable in water. Biodegradable in the soil. Low potential for absorption in soil.*
Biochemical Oxygen Demand	*2.15 g O_2/g substance*
Chemical Oxygen Demand	*2.52 g O_2/g substance*
Theoretical Oxygen Demand	*3.13 g O_2/g substance*
Biodegration	*86 % 28 Days*
Log Pow	*2.73 (Experimental Value)*
Bioacculative Potential	*Low potential for bioaccumulation (BCF < 500).*
Log Koc	*2.15*

Xylene (1330-20-7)	
LC50 Fish	*26.7 mg/l Fathead Minnow - 96h*
EC50 Daphnia	*75.49 mg/l Water Flea - 48hr*
EC50 Other Aquatic Organisms	*72 mg/l Green Algae - 14d*
Persistence and Degradibility	*Readily biodegradable in water.*
Biochemical Oxygen Demand	*1.40 - 2.53 g O_2/g substance*
Chemical Oxygen Demand	*2.56 - 2.91 g O_2/g substance*
Theoretical Oxygen Demand	*3.1 g O_2/g substance*
BCF Fish	*14.1 - 24 (BCF)*

Xylene (1330-20-7)	
Log Pow	*3.217*
Bioacculative Potential	*Low potential for bioaccumulation (BCF < 500).*
Log Koc	*3.156*

Ethylbenzene (100-41-4)	
LC50 Fish	*4.2 mg/l Rainbow Trout - 96hr*
EC50 Daphnia	*2.4 mg/l Water Flea - 48hr*
EC50 Other Aquatic Organisms	*9.68 mg/l Bacteria - 30min*
EC50 Other Aquatic Organisms	*4.6 mg/l Green Algae - 72hr*
Persistence and Degradibility	*Readily biodegradable in water. Biodegradable in the soil. Low potential for absorption in soil.*
Biochemical Oxygen Demand	*1.44 g O_2/g substance*
Chemical Oxygen Demand	*2.1 g O_2/g substance*
Theoretical Oxygen Demand	*3.17 g O_2/g substance*
Biodegration	*81 % 28 Days*
BCF Fish	*1.18*
Log Pow	*3.15*
Bioacculative Potential	*Low potential for bioaccumulation (BCF < 500).*
Log Koc	*2.4*

Light Aromatic Solvent Naphtha (64742-95-6)	
LC50 Fish	*18 mg/l (LC50)*
EC50 Daphnia	*21 mg/l (EC50)*
Persistence and Degradibility	*Readily biodegradable in water.*
Log Pow	*> 3*

1,2,4-Trimethyl Benzene (95-63-6)	
LC50 Fish	*7.72 mg/l Fathead Minnow - 96h*
EC50 Daphnia	*3.6 mg/l Water Flea - 48hr*
Persistence and Degradibility	*Biodegradable in the soil. Not readily biodegradable in water.*
Chemical Oxygen Demand	*0.44 g O_2/g substance*
BCF Fish	*243 (Pimephales promelas, QSAR)*
Log Pow	*3.63 (Experimental value, KOWWIN)*
Bioacculative Potential	*Low potential for bioaccumulation (BCF < 500).*
Log Koc	*3.04 (log Koc, Calculated value)*

SECTION 13 - DISPOSAL CONSIDERATIONS

13.1 Waste Treatment Methods

Waste Disposal : *Characteristics and waste stream classification can change with product use and location. It is the responsibility of the user to determine the proper storage, transportation, treatment, and/or disposal methodologies for spent materials and residues at the time of disposition. All waste must be disposed of in compliance with the respective national, federal, state, and/or local regulations.*

Waste Disposal Of Packaging : *For disposal of large containers (typically 10 gallons or larger), or for containers not suitable for landfill, a licensed reconditioner should be used. Consult with your local landfill to determine if empty small containers can be disposed of along with regular trash pickup.*

Landfill Precautions : *Not Available.*

Incineration Precautions : *** DO NOT INCINERATE ** CONTENTS UNDER PRESSURE **.*

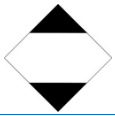
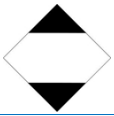
SECTION 14 - TRANSPORTATION INFORMATION

14.1 UN Number		TDG (CANADA)	IATA (AIR)	IMDG (OCEAN)
UN Number	:	*UN1950*	*UN1950*	*UN1950*

14.2 UN Proper Shipping Name		TDG (CANADA)	IATA (AIR)	IMDG (OCEAN)
UN Proper Shipping Name	:	*Aerosols, Limited Quantity*	*Aerosols, Flammable, Limited Quantity*	*Aerosols, Limited Quantity*

14.3 Transport Hazard Class(es)		TDG (CANADA)	IATA (AIR)	IMDG (OCEAN)
Transport Hazard Class(es)	:	*2.1*	*2.1*	*2.1*

according to the Hazardous Products Regulations (February 11, 2015)

Labels	:	*None*	*2.1 - Flammable gas* 	*None*
Limited Quantity	:	*Yes* 	*Yes* 	*Yes* 
EmS Code	:	*Not Applicable*	*Not Applicable*	*F-D, S-U*

14.4 Packing Group		TDG (CANADA)	IATA (AIR)	IMDG (OCEAN)
Packing Group	:	*None*	*None*	*None*

14.5 Environmental Hazards		TDG (CANADA)	IATA (AIR)	IMDG (OCEAN)
Marine Pollutant	:	*No*	*No*	*No*

14.6 Special Precautions

Precautions : *None Identified*

14.7 Transport in Bulk

Remarks : *Not applicable for product as supplied*

SECTION 15 - REGULATORY INFORMATION

15.1 Safety, Health and Environmental Regulations Specific to the Product

TSCA Inventory (United States) : *All chemical substances in this product are either listed on the Toxic Substances Control Act (TSCA) Inventory or are in compliance with a TSCA Inventory exemption.*

DSL/NDSL Inventory (Canada) : *All chemical substances in this product are listed on the Domestic Substance List (DSL), exempt or are not subject to notification.*

SECTION 16 - OTHER INFORMATION

Indication of changes :

Section	*Changed item*	*Change*
1	Revision date	Modified
1	Supersedes	Modified
2.1	GHS-US classification	Modified
2.2	Hazard statements (GHS US)	Modified
2.2	Precautionary statements (GHS US)	Modified
3	Composition/information on ingredients	Modified
4	Symptoms/effects after skin contact	Modified
6	Emergency procedures	Modified
6	Environmental precautions	Modified
7.1	Precautions for safe handling	Modified
7.1	Hygiene measures	Modified
9	Density	Modified
9	Auto-ignition temperature	Modified
9	Boiling point	Modified
9	Flash point	Modified
9	Melting point	Modified
9	Relative vapour density at 20 °C	Added

Full Text of H-Statements :

H Code	*H Phrase*
H222	*Extremely flammable aerosol.*
H225	*Highly flammable liquid and vapour.*
H226	*Flammable liquid and vapour.*
H304	*May be fatal if swallowed and enters airways.*
H315	*Causes skin irritation.*
H319	*Causes serious eye irritation.*
H332	*Harmful if inhaled.*
H335	*May cause respiratory irritation.*
H336	*May cause drowsiness or dizziness.*
H340	*May cause genetic defects.*
H350	*May cause cancer.*
H361	*Suspected of damaging fertility or the unborn child.*
H373	*May cause damage to organs through prolonged or repeated exposure.*

according to the Hazardous Products Regulations (February 11, 2015)

H401	*Toxic to aquatic life*
H402	*Harmful to aquatic life*
H411	*Toxic to aquatic life with long lasting effects.*

Disclaimer of Liability

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