



SAFETY DATA SHEET

1. Identification

Product identifier	STEEL-IT 4907A Epoxy Topcoat, Part A
Other means of identification	
SDS number	SDS-4907A
Product code	FGPA4907A-P (pint), FGPA4907A-Q (quart), FGPA4907A-G (gallon), FGPA4907A-5G (5-gallon pail)
Recommended use	Paint / Industrial coating (topcoat). Category: Pigmented metallic coating.
Recommended restrictions	Uses other than the recommended use.
Manufacturer/Importer/Supplier/Distributor information	
Manufacturer	Stainless Steel Coatings, Inc.
Address	835 Sterling Road, Lancaster MA 01523-2915, USA
Telephone	+1 (978) 365-9828
E-mail	sds@STEEL-IT.com
Supplier	James G Armour & Co Ltd.
Address	2460 Anson Dr Mississauga, ON L5S 1G7, Canada
Telephone	(905) 677-7995
Fax	(905) 677-7999
E-mail	info@jamesarmour.ca
Contact person	Glen Napier
Emergency telephone	CHEMTREC: 1-800-424-9300 (Toll Free) International: 1-703-527-3887

2. Hazard identification

Physical hazards	Flammable liquids	Category 3
Health hazards	Acute toxicity, inhalation	Category 4
	Skin corrosion/irritation	Category 2
	Serious eye damage/eye irritation	Category 1
	Sensitization, skin	Category 1A
	Carcinogenicity	Category 2
	Reproductive toxicity (inhalation)	Category 2
	Specific target organ toxicity following single exposure	Category 3 respiratory tract irritation
	Specific target organ toxicity following repeated exposure (inhalation)	Category 1 (respiratory tract)
	Specific target organ toxicity following repeated exposure	Category 2 (central nervous system, kidneys, liver)
Environmental hazards	Hazardous to the aquatic environment, acute hazard	Category 2
	Hazardous to the aquatic environment, long-term hazard	Category 2

Label elements



Signal word Danger

Hazard statement Flammable liquid and vapour. Harmful if inhaled. Causes skin irritation. Causes serious eye damage. May cause an allergic skin reaction. Suspected of causing cancer. Suspected of damaging fertility or the unborn child by inhalation. May cause respiratory irritation. Causes damage to organs (respiratory tract) through prolonged or repeated exposure by inhalation. May cause damage to organs (central nervous system, kidneys, liver) through prolonged or repeated exposure. Toxic to aquatic life with long lasting effects.

Precautionary statement

Prevention

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep container tightly closed. Ground and bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Use non-sparking tools. Take action to prevent static discharges. Do not breathe mist/vapours/spray. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection.

Response

IF exposed or concerned: Get medical advice/attention. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTRE/doctor. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTRE/doctor if you feel unwell. In case of fire: Use water fog, foam, dry chemical powder, carbon dioxide to extinguish. Collect spillage.

Storage

Store in a well-ventilated place. Keep cool. Store locked up.

Disposal

Dispose of contents/container in accordance with local/regional/national/international regulations.

Supplemental information

None.

Other hazards

None known.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine		68082-29-1	30 - 60
2-Butoxyethanol		111-76-2	10 - 30
Benzene, 1-chloro-4-(trifluoromethyl)-		98-56-6	10 - 30
Xylene		1330-20-7	10 - 30
Chromium		7440-47-3	1 - 5
Nickel		7440-02-0	1 - 5
Solvent naphtha (petroleum), light aromatic		64742-95-6	1 - 5
Urea, polymer with formaldehyde, butylated		68002-19-7	1 - 5
4,4'-Methylenebis(cyclohexylamine)		1761-71-3	0.1 - 1
Ethylbenzene		100-41-4	0.1 - 1
Triethylenetetramine		112-24-3	0.1 - 1

Composition comments

The exact concentrations of the above listed chemicals are being withheld as a trade secret. All concentrations are in percent by weight unless otherwise indicated. Components not listed are either non-hazardous or are below reportable limits.

4. First-aid measures

Inhalation

Remove victim to fresh air and keep at rest in a position comfortable for breathing. Oxygen or artificial respiration if needed. Call a poison centre or doctor/physician if you feel unwell.

Skin contact

Remove contaminated clothing immediately and wash skin with soap and water. In case of eczema or other skin disorders: Seek medical attention and take along these instructions.

Eye contact

Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately.

Ingestion	Rinse mouth. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Get medical attention if symptoms occur.
Most important symptoms/effects, acute and delayed	Narcosis. Behavioural changes. Decrease in motor functions. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. May cause respiratory irritation. Coughing. Skin irritation. May cause redness and pain. May cause an allergic skin reaction. Dermatitis. Rash. Jaundice. Prolonged exposure may cause chronic effects.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Thermal burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim warm. Keep victim under observation. Symptoms may be delayed.
General information	Take off all contaminated clothing immediately. If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before reuse.

5. Fire-fighting measures

Suitable extinguishing media	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	Vapours may form explosive mixtures with air. Vapours may travel considerable distance to a source of ignition and flash back. During fire, gases hazardous to health may be formed such as: Carbon oxides. Aldehydes. Nitrogen oxides. Fumes of metal oxides. Halogenated compounds.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire fighting equipment/instructions	In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk. Cool containers exposed to flames with water until well after the fire is out. Prevent runoff from fire control or dilution from entering streams, sewers or drinking water supply.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	Flammable liquid and vapour.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist/vapours/spray. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up	Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil etc) away from spilled material. Take precautionary measures against static discharge. Use only non-sparking tools. Prevent product from entering drains. Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Following product recovery, flush area with water. Retain and dispose of contaminated wash water. Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Wipe up with absorbent material. Clean surface thoroughly to remove residual contamination. Never return spills to original containers for re-use. Put material in suitable, covered, labelled containers. For waste disposal, see section 13 of the SDS.
Environmental precautions	Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Explosion-proof general and local exhaust ventilation. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Use non-sparking tools and explosion-proof equipment.

Do not breathe mist/vapours/spray. Do not get this material in contact with eyes. Avoid contact with skin and clothing. Avoid prolonged exposure. When using, do not eat, drink or smoke. Persons susceptible to allergic reactions should not handle this product. Pregnant or breastfeeding women must not handle this product. Should be handled in closed systems, if possible. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Avoid release to the environment. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities

Store locked up. Keep away from heat, sparks and open flame. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Store in a cool, dry place out of direct sunlight. Store in tightly closed container. Store in a well-ventilated place. Keep in an area equipped with sprinklers. Store away from incompatible materials (see section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

US. ACGIH Threshold Limit Values (TLV)

Components	Type	Value	Form
2-Butoxyethanol (CAS 111-76-2)	TWA	20 ppm	
Chromium (CAS 7440-47-3)	TWA	0.5 mg/m ³	Inhalable fraction.
Ethylbenzene (CAS 100-41-4)	TWA	20 ppm	
Nickel (CAS 7440-02-0)	TWA	1.5 mg/m ³	Inhalable fraction.
Xylene (CAS 1330-20-7)	TWA	20 ppm	

Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2), as amended

Components	Type	Value	Form
2-Butoxyethanol (CAS 111-76-2)	TWA	97 mg/m ³	
		20 ppm	
Chromium (CAS 7440-47-3)	TWA	0.5 mg/m ³	
Ethylbenzene (CAS 100-41-4)	STEL	543 mg/m ³	
		125 ppm	
	TWA	434 mg/m ³	
		100 ppm	
Nickel (CAS 7440-02-0)	TWA	1.5 mg/m ³	
Xylene (CAS 1330-20-7)	STEL	651 mg/m ³	
		150 ppm	
	TWA	434 mg/m ³	
		100 ppm	

Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended)

Components	Type	Value	Form
2-Butoxyethanol (CAS 111-76-2)	TWA	20 ppm	
Chromium (CAS 7440-47-3)	TWA	0.5 mg/m ³	Total
Ethylbenzene (CAS 100-41-4)	TWA	20 ppm	
Xylene (CAS 1330-20-7)	STEL	150 ppm	
	TWA	100 ppm	

Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act), as amended

Components	Type	Value	Form
2-Butoxyethanol (CAS 111-76-2)	TWA	20 ppm	
Chromium (CAS 7440-47-3)	TWA	0.5 mg/m3	Inhalable fraction.
Ethylbenzene (CAS 100-41-4)	TWA	20 ppm	
Nickel (CAS 7440-02-0)	TWA	1.5 mg/m3	Inhalable fraction.
Xylene (CAS 1330-20-7)	TWA	20 ppm	

Canada. New Brunswick OELs: Threshold Limit Values (TLVs) Based on the 1991 and 1997 ACGIH TLVs and BEIs Publication (New Brunswick Regulation 91-191)

Components	Type	Value	Form
2-Butoxyethanol (CAS 111-76-2)	TWA	121 mg/m3	
		25 ppm	
Chromium (CAS 7440-47-3)	TWA	0.5 mg/m3	
Ethylbenzene (CAS 100-41-4)	STEL	543 mg/m3	
		125 ppm	
	TWA	434 mg/m3	
Nickel (CAS 7440-02-0)	TWA	100 ppm	
	TWA	1 mg/m3	Inhalable
Xylene (CAS 1330-20-7)	STEL	651 mg/m3	
		150 ppm	
	TWA	434 mg/m3	
		100 ppm	

Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended

Components	Type	Value	Form
2-Butoxyethanol (CAS 111-76-2)	TWA	20 ppm	
Chromium (CAS 7440-47-3)	TWA	0.5 mg/m3	
Ethylbenzene (CAS 100-41-4)	TWA	20 ppm	
Nickel (CAS 7440-02-0)	TWA	1 mg/m3	Inhalable fraction.
Triethylenetetramine (CAS 112-24-3)	TWA	3 mg/m3	
		0.5 ppm	
Xylene (CAS 1330-20-7)	STEL	150 ppm	
	TWA	100 ppm	

Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety)

Components	Type	Value	Form
2-Butoxyethanol (CAS 111-76-2)	TWA	20 ppm	
Chromium (CAS 7440-47-3)	TWA	0.5 mg/m3	
Ethylbenzene (CAS 100-41-4)	TWA	20 ppm	
Nickel (CAS 7440-02-0)	TWA	1.5 mg/m3	Inhalable dust.
Xylene (CAS 1330-20-7)	STEL	651 mg/m3	
		150 ppm	
	TWA	434 mg/m3	
		100 ppm	

Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21), as amended

Components	Type	Value	Form
2-Butoxyethanol (CAS 111-76-2)	15 minute	30 ppm	
	8 hour	20 ppm	
Chromium (CAS 7440-47-3)	15 minute	1.5 mg/m ³	
Ethylbenzene (CAS 100-41-4)	15 minute	125 ppm	
	8 hour	100 ppm	
Nickel (CAS 7440-02-0)	15 minute	3 mg/m ³	Inhalable fraction.
Xylene (CAS 1330-20-7)	15 minute	150 ppm	
	8 hour	100 ppm	

Biological limit values

ACGIH Biological Exposure Indices (BEI)

Components	Value	Determinant	Specimen	Sampling Time
2-Butoxyethanol (CAS 111-76-2)	200 mg/g	Butoxyacetic acid (BAA), with hydrolysis	Creatinine in urine	*
Chromium (CAS 7440-47-3)	0.7 µg/l	Total chromium	Urine	*
Ethylbenzene (CAS 100-41-4)	0.15 g/g	Sum of mandelic acid and phenylglyoxylic acid	Creatinine in urine	*
Nickel (CAS 7440-02-0)	5 µg/l	Nickel	Urine	*
Xylene (CAS 1330-20-7)	1.5 g/g	Methylhippuric acids	Creatinine in urine	*

* - For sampling details, please see the source document.

Exposure guidelines

Canada - Ontario OELs: Skin designation

Triethylenetetramine (CAS 112-24-3)

Can be absorbed through the skin.

Appropriate engineering controls

Explosion-proof general and local exhaust ventilation. Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. Eye wash facilities and emergency shower must be available when handling this product.

Individual protection measures, such as personal protective equipment

Eye/face protection

When working with liquids wear splash-proof chemical goggles and face shield unless full facepiece respiratory protection is worn.

Skin protection

Hand protection

Wear appropriate chemical resistant gloves. Glove material: Nitrile. Use gloves with breakthrough time of 136 +/- 3 (Part A + Part B) minutes. Minimum glove thickness 0.381 (15 mil) mm. Be aware that the liquid may penetrate the gloves. Frequent change is advisable. The most suitable glove must be chosen in consultation with the gloves supplier, who can inform about the breakthrough time of the glove material.

Other

Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.

Respiratory protection

If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. Chemical respirator with organic vapour cartridge and full facepiece. Selection and use of respiratory protective equipment should be in accordance with CSA Standard Z94.4. Check with respiratory protective equipment suppliers.

Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

Observe any medical surveillance requirements. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Contaminated work clothing should not be allowed out of the workplace.

9. Physical and chemical properties

Appearance

Physical state	Liquid.
Form	Liquid.
Colour	Grey.

Odour Characteristic of solvents.

Odour threshold Property has not been measured.

pH Not applicable (material is insoluble in water).

Melting point/freezing point Technically not possible to determine.

Initial boiling point and boiling range 137 - 171 °C (278.6 - 339.8 °F)

Flash point 28.89 °C (84 °F)

Evaporation rate Property has not been measured.

Flammability (solid, gas) Not applicable.

Upper/lower flammability or explosive limits

Explosive limit - lower (%) 0.9 % (oxsol)

Explosive limit – upper (%) 10.5 % (oxsol)

Vapour pressure 60 mmHg (oxsol) (20 °C (68 °F))

Vapour density > 1 (Air=1) (25 °C (77 °F))

Relative density 1.147 (Water=1) (25 °C (77 °F))

Solubility(ies)

Solubility (water) (< 0.1%) Insoluble in water.

Partition coefficient (n-octanol/water) Not applicable, product is a mixture.

Auto-ignition temperature > 400 °C (> 752 °F)

Decomposition temperature 438.5 °C (821.2 °F)

Viscosity Property has not been measured.

Other information Total weight solids: 55.5 % w/w (Part A + Part B)
Total volume solids: 48.18 % v/v (Part A + Part B)

Density 1.147 g/cm³ (25 °C (77 °F))

Explosive properties Not explosive.

Flammability Flammable liquid and vapour.

Kinematic viscosity 3000 mm²/s (25 °C (77 °F))

Oxidising properties Not oxidising.

Particle size Does not contain nanomaterials.

VOC 430.33 g/l (Calculated for Part A + Part B)
3.6 lb/gal (Calculated for Part A + Part B)

10. Stability and reactivity

Reactivity The product is stable and non-reactive under normal conditions of use, storage and transport.

Chemical stability Material is stable under normal conditions.

Possibility of hazardous reactions No dangerous reaction known under conditions of normal use.

Conditions to avoid Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Protect against direct sunlight. Contact with incompatible materials.

Incompatible materials Strong acids. Strong oxidising agents. Strong reducing agents. Halogens.

Hazardous decomposition products Thermal decomposition of this product can generate carbon monoxide and carbon dioxide. Aldehydes. Nitrogen oxides. Fumes of metal oxides. Halogenated compounds.

11. Toxicological information

Information on likely routes of exposure

Inhalation	Harmful if inhaled. May cause respiratory irritation. Causes damage to organs through prolonged or repeated exposure by inhalation.
Skin contact	Causes skin irritation. May cause an allergic skin reaction. May be harmful in contact with skin. May be absorbed through the skin. 2-Butoxy ethanol may be absorbed through the skin in toxic amounts if contact is repeated and prolonged. These effects have not been observed in humans.
Eye contact	Causes serious eye damage.
Ingestion	May cause discomfort if swallowed.

Symptoms related to the physical, chemical and toxicological characteristics

Narcosis. Behavioural changes. Decrease in motor functions. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. May cause respiratory irritation. Coughing. Skin irritation. May cause redness and pain. May cause an allergic skin reaction. Dermatitis. Rash. Jaundice. Prolonged exposure may cause chronic effects.

Information on toxicological effects

Acute toxicity Harmful if inhaled. May be harmful in contact with skin.

Components	Species	Test Results
Ethylbenzene (CAS 100-41-4)		
Acute		
Dermal		
LD50	Rabbit	15400 mg/kg
Inhalation		
LC50	Rat	17.4 mg/l, 4 hours
Oral		
LD50	Rat	3500 - 4700 mg/kg
Triethylenetetramine (CAS 112-24-3)		
Acute		
Dermal		
LD50	Rabbit	805 mg/kg
Xylene (CAS 1330-20-7)		
Acute		
Oral		
LD50	Rat	3523 mg/kg

Skin corrosion/irritation Causes skin irritation.

Serious eye damage/eye irritation Causes serious eye damage.

Respiratory or skin sensitisation

Canada - Alberta OELs: Irritant

2-Butoxyethanol (CAS 111-76-2)	Irritant
Chromium (CAS 7440-47-3)	Irritant

Respiratory sensitisation Not a respiratory sensitiser.

Skin sensitisation May cause an allergic skin reaction.

Germ cell mutagenicity No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity Suspected of causing cancer.

ACGIH Carcinogens

2-Butoxyethanol (CAS 111-76-2)	A3 Confirmed animal carcinogen with unknown relevance to humans.
Ethylbenzene (CAS 100-41-4)	A3 Confirmed animal carcinogen with unknown relevance to humans.
Nickel (CAS 7440-02-0)	A5 Not suspected as a human carcinogen.

Xylene (CAS 1330-20-7)	A4 Not classifiable as a human carcinogen.
Canada - Alberta OELs: Carcinogen category	
Nickel (CAS 7440-02-0)	Confirmed human carcinogen.
Canada - Manitoba OELs: carcinogenicity	
2-Butoxyethanol (CAS 111-76-2)	Confirmed animal carcinogen with unknown relevance to humans.
Ethylbenzene (CAS 100-41-4)	Confirmed animal carcinogen with unknown relevance to humans.
Nickel (CAS 7440-02-0)	Not suspected as a human carcinogen.
Xylene (CAS 1330-20-7)	Not classifiable as a human carcinogen.
Canada - Quebec OELs: Carcinogen category	
2-Butoxyethanol (CAS 111-76-2)	Detected carcinogenic effect in animals.
Ethylbenzene (CAS 100-41-4)	Detected carcinogenic effect in animals.
IARC Monographs. Overall Evaluation of Carcinogenicity	
2-Butoxyethanol (CAS 111-76-2)	3 Not classifiable as to carcinogenicity to humans.
Benzene, 1-chloro-4-(trifluoromethyl)- (CAS 98-56-6)	2B Possibly carcinogenic to humans.
Chromium (CAS 7440-47-3)	3 Not classifiable as to carcinogenicity to humans.
Ethylbenzene (CAS 100-41-4)	2B Possibly carcinogenic to humans.
Nickel (CAS 7440-02-0)	2B Possibly carcinogenic to humans.
Solvent naphtha (petroleum), light aromatic (CAS 64742-95-6)	3 Not classifiable as to carcinogenicity to humans.
Xylene (CAS 1330-20-7)	3 Not classifiable as to carcinogenicity to humans.
US. National Toxicology Program (NTP) Report on Carcinogens	
Nickel (CAS 7440-02-0)	Known To Be Human Carcinogen. Reasonably Anticipated to be a Human Carcinogen.

Reproductive toxicity	Suspected of damaging fertility or the unborn child by inhalation.
Specific target organ toxicity - single exposure	May cause respiratory irritation.
Specific target organ toxicity - repeated exposure	Causes damage to organs (respiratory tract) through prolonged or repeated exposure by inhalation. May cause damage to organs (central nervous system, kidneys, liver) through prolonged or repeated exposure.
Aspiration hazard	Not an aspiration hazard.
Chronic effects	Prolonged inhalation may be harmful. Causes damage to organs through prolonged or repeated exposure. Prolonged exposure may cause chronic effects.
Further information	Symptoms may be delayed.

12. Ecological information

Ecotoxicity Toxic to aquatic life with long lasting effects.

Components		Species	Test Results
2-Butoxyethanol (CAS 111-76-2)			
Aquatic			
Algae	NOEC	Pseudokirchnerella subcapitata	286 mg/l, 72 hours
Crustacea	EC50	Daphnia magna	835 mg/l, 48 hours
<i>Acute</i>			
Fish	LC50	Oncorhynchus mykiss	1474 mg/l, 96 Hours
Ethylbenzene (CAS 100-41-4)			
Aquatic			
<i>Acute</i>			
Crustacea	EC50	Water flea (Daphnia magna)	1.81 - 2.38 mg/l, 48 hours
Fish	LC50	Rainbow trout, donaldson trout (Oncorhynchus mykiss)	4.2 mg/l, 96 hours
<i>Chronic</i>			
Crustacea	EC50	Ceriodaphnia dubia	3.6 mg/l, 7 days
Nickel (CAS 7440-02-0)			
Aquatic			
<i>Acute</i>			
Crustacea	EC50	Water flea (Daphnia magna)	1 mg/l, 48 hours
	LC50	Calanoid copepod (Eurytemora affinis)	>= 7.35 - <= 12.12 mg/l, 96 hours

Components	Species		Test Results
Solvent naphtha (petroleum), light aromatic (CAS 64742-95-6)			
Aquatic			
<i>Acute</i>			
Crustacea	EL50	Daphnia	4.5 mg/l, 48 hours
Fish	LL50	Oncorhynchus mykiss	10 mg/l, 96 hours
Xylene (CAS 1330-20-7)			
Aquatic			
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss)	2.6 mg/l, 96 hours

Persistence and degradability No data is available on the degradability of this product.

Bioaccumulative potential

Partition coefficient n-octanol / water (log Kow)

2-Butoxyethanol (CAS 111-76-2)	0.83
Benzene, 1-chloro-4-(trifluoromethyl)- (CAS 98-56-6)	3.6
Ethylbenzene (CAS 100-41-4)	3.15

Mobility in soil The product is insoluble in water. Not expected to be mobile in soil.

Other adverse effects The product contains volatile organic compounds which have a photochemical ozone creation potential.

13. Disposal considerations

Disposal instructions Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Incinerate the material under controlled conditions in an approved incinerator. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.

Local disposal regulations Dispose in accordance with all applicable regulations.

Hazardous waste code The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Waste from residues / unused products Dispose in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner.

Contaminated packaging Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

TDG

UN number	UN1263
UN proper shipping name	Paint
Transport hazard class(es)	
Class	3
Subsidiary risk	-
Packing group	III
Environmental hazards	Yes
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

IATA

UN number	UN1263
UN proper shipping name	Paint
Transport hazard class(es)	
Class	3
Subsidiary risk	-
Label(s)	3
Packing group	III
Environmental hazards	Yes
ERG Code	3L
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

IMDG

UN number	UN1263
UN proper shipping name	PAINT

Transport hazard class(es)**Class** 3**Subsidiary risk** -**Packing group** III**Environmental hazards****Marine pollutant** Yes**EmS** F-E, S-E**Special precautions for user** Read safety instructions, SDS and emergency procedures before handling.**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** Not established.**15. Regulatory information****Canadian regulations** This product has been classified in accordance with the hazard criteria of the HPR and the SDS contains all the information required by the HPR.**Controlled Drugs and Substances Act**

Not regulated.

Excluded VOCs. Guidelines for Volatile Organic Compounds in Consumer Products. CEPA 1999. Environment Canada

Benzene, 1-chloro-4-(trifluoromethyl)- (CAS 98-56-6)

Export Control List (CEPA 1999, Schedule 3)

Not listed.

Greenhouse Gases

Not listed.

Ontario. Toxic Substances. Toxic Reduction Act, 2009. Regulation 455/09 (July 1, 2011)

Chromium (CAS 7440-47-3)

Ethylbenzene (CAS 100-41-4)

Nickel (CAS 7440-02-0)

Xylene (CAS 1330-20-7)

Precursor Control Regulations

Not regulated.

International regulations**Stockholm Convention**

Not applicable.

Rotterdam Convention

Not applicable.

Kyoto Protocol

Not applicable.

Montreal Protocol

Not applicable.

Basel Convention

2-Butoxyethanol (CAS 111-76-2)

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Industrial Chemicals (AICIS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes

Country(s) or region	Inventory name	On inventory (yes/no)*
Taiwan	Taiwan Chemical Substance Inventory (TCSI)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information

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Version No. 02

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