MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Material name **CORE ADHESIVE SB-100**

Version # 12

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Chemical description Adhesive

CAS # Mixture

Product use Adhesive

Manufacturer information

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General Information (800) 527-9948
CHEMTREC® (800) 424-9300

2. Hazards Identification

Emergency overview DANGER

Highly flammable.

Flammable liquid - may release vapors that form flammable mixtures at or above the flash point. Will be easily ignited by heat, spark or flames. Vapors may form explosive mixtures with air. Heat may cause the containers to explode. Very toxic. Irritating to eyes and skin.

Potential health effects

Routes of exposure Inhalation. Ingestion. Skin contact. Eye contact. Eye contact

Eyes Contact with eyes may cause irritation. Do not get this material in contact with eyes. May cause irreversible eye damage. This product is severely irritating to the eyes.

Skin Prolonged or repeated contact can result in defatting and drying of the skin which may result in skin irritation and dermatitis (rash). May cause skin irritation and/or dermatitis. May cause skin irritation. Do not get this material in contact with skin.

Inhalation May cause irritation of respiratory tract. Prolonged inhalation may be harmful. Do not breathe dust/fume/gas/mist/vapors/spray. Excessive inhalation of vapors from this product may cause weakness, dizziness, confusion and numbness of limbs.

Ingestion Components of the product may be absorbed into the body by ingestion. Irritating. May cause nausea, stomach pain and vomiting. Do not ingest. Ingestion can cause gastrointestinal irritation, nausea, vomiting and diarrhea. Aspiration into lungs may cause chemical pneumonia and lung damage.

Target organs Central nervous system. Eyes. Kidneys. Liver. Respiratory system. Skin.

Chronic effects May cause central nervous system disorder (e.g., narcosis involving a loss of coordination, weakness, fatigue, mental confusion, and blurred vision) and/or damage. Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis.

Signs and symptoms Symptoms are prostration, gasping, pallor, and uncoordinated movements. Symptoms may include redness, edema, drying, defatting and cracking of the skin. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.

Potential environmental effects Components of this product are hazardous to aquatic life. May cause long-term adverse effects in the environment.

3. Composition / Information on Ingredients

Components	CAS #	Percent
METHYL ETHYL KETONE	78-93-3	5 - 10

Components	CAS #	Percent
TOLUENE	108-88-3	1 - 5
Other components below reportable levels		60 - 100

Composition comments Not applicable to consumer products. Occupational Exposure Limits for constituents are listed in Section 8.

4. First Aid Measures

First aid procedures

Eye contact Immediately flush eyes with plenty of water for at least 15 minutes. Immediately flush eyes with plenty of water for at least 20 minutes. If a contact lens is present, DO NOT delay irrigation or attempt to remove the lens. Continue rinsing. Call a physician or Poison Control Center immediately.

Skin contact Take off immediately all contaminated clothing. Immediately flush skin with plenty of water. Call a physician or Poison Control Center immediately. Get medical attention if irritation develops or persists. Wash clothing separately before reuse.

Inhalation Move to fresh air. If the affected person is not breathing, apply artificial respiration. Oxygen or artificial respiration if needed. Do not use mouth-to-mouth method if victim inhaled the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Call a physician or Poison Control Center immediately.

Ingestion IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. If material is ingested, immediately contact a physician or poison control center. Never give anything by mouth to a victim who is unconscious or is having convulsions. Rinse mouth thoroughly. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration. Do not induce vomiting without medical advice. Do not induce vomiting without advice from poison control center. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Do not use mouth-to-mouth method if victim ingested the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.

Notes to physician Symptoms may be delayed.

General advice Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Immediate medical attention is required. Show this safety data sheet to the doctor in attendance.

5. Fire Fighting Measures

Flammable properties Flammable by WHMIS criteria. Containers may explode when heated. Heat may cause the containers to explode. Vapor or gas may spread to distant ignition sources and flash back. Vapors may travel considerable distance to a source of ignition and flash back.

Extinguishing media

Suitable extinguishing media Water Fog. Carbon dioxide (CO2). Dry chemical, CO2, water spray or regular foam. Alcohol resistant foam. Powder.

Unsuitable extinguishing media Water. Do not use water jet as an extinguisher, as this will spread the fire.

Protection of firefighters

Specific hazards arising from the chemical Fire may produce irritating, corrosive and/or toxic gases.

Protective equipment for firefighters Firefighters should wear full protective clothing including self contained breathing apparatus. As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

Fire fighting equipment/instructions Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA. ALWAYS stay away from tanks engulfed in flame. Move containers from fire area if you can do it without risk. Withdraw immediately in case of rising sound from venting safety device or any discoloration of tanks due to fire. In the event of fire, cool tanks with water spray. Do not scatter spilled material with high pressure water streams. For massive fire in cargo area, use unmanned hose holder or monitor nozzles, if possible. If not, withdraw and let fire burn out. Some of these materials, if spilled, may evaporate leaving a flammable residue.

Specific methods In the event of fire and/or explosion do not breathe fumes.

Explosion data

Sensitivity to static discharge Not available.

Sensitivity to mechanical impact	Not available.
Hazardous combustion products	Fire may produce irritating, corrosive and/or toxic gases.

6. Accidental Release Measures

Personal precautions

Keep unnecessary personnel away. Consider initial downwind evacuation for at least 500 meters (1/3 mile). Fully encapsulating, vapor protective clothing should be worn for spills and leaks with no fire. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep people away from and upwind of spill/leak. Keep upwind. Ventilate closed spaces before entering them.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Runoff from fire control or dilution water may cause pollution. Do not contaminate water.

Methods for containment

Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Stop leak if you can do so without risk. Move the cylinder to a safe and open area if the leak is irreparable. Dike the spilled material, where this is possible. This material is classified as a water pollutant under the Clean Water Act and should be prevented from contaminating soil or from entering sewage and drainage systems which lead to waterways.

Methods for cleaning up

Extinguish all flames in the vicinity. Should not be released into the environment. This product is miscible in water.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Use clean non-sparking tools to collect absorbed material. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills in original containers for re-use. Clean up in accordance with all applicable regulations. For waste disposal, see section 13 of the MSDS. Avoid runoff into storm sewers and ditches which lead to waterways. Absorb spill with inert material (e.g., dry sand or earth), then place in a chemical waste container.

Other information

Clean up in accordance with all applicable regulations.

7. Handling and Storage

Handling

Vapors may form explosive mixtures with air. May be ignited by open flame. DO NOT handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Do not handle or store near an open flame, heat or other sources of ignition. When using do not smoke. All equipment used when handling the product must be grounded. Do not breathe mist or vapor.

Do not get this material in contact with eyes. Do not get this material in contact with skin. Do not get this material on clothing. Do not use in areas without adequate ventilation. Avoid prolonged exposure. When using do not eat or drink. Wash thoroughly after handling. Avoid release to the environment.

Storage

Keep locked up. Keep at temperatures between 15 and 35°C. Keep away from heat, sparks, and flame. Do not handle or store near an open flame, heat or other sources of ignition. Keep at temperature not exceeding 49 °C. This material can accumulate static charge which may cause spark and become an ignition source. Refrigeration recommended. Store in a well-ventilated place. Keep tightly closed in a dry, cool and well-ventilated place. Keep this material away from food, drink and animal feed. Store away from strong oxidizers. Store in a closed container away from incompatible materials. Keep in an area equipped with sprinklers. Keep away from food, drink and animal feedingstuffs. Keep out of the reach of children.

8. Exposure Controls / Personal Protection

Occupational exposure limits

US. ACGIH Threshold Limit Values

Components	Type	Value
Methyl ethyl ketone (78-93-3)	STEL	300 ppm
	TWA	200 ppm
Toluene (108-88-3)	TWA	20 ppm

US. ACGIH. BEIs. Biological Exposure Indices

Components	Type	Value
Methyl ethyl ketone (78-93-3)	BEI	2 mg/l
Toluene (108-88-3)	BEI	0.3 mg/g 0.03 mg/l 0.02 mg/l

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

Components	Type	Value
Methyl ethyl ketone (78-93-3)	STEL	885 mg/m3 300 ppm
	TWA	590 mg/m3 200 ppm
Toluene (108-88-3)	TWA	188 mg/m3 50 ppm

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

Components	Type	Value
Methyl ethyl ketone (78-93-3)	STEL	100 ppm
	TWA	50 ppm
Toluene (108-88-3)	TWA	20 ppm

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

Components	Type	Value
Methyl ethyl ketone (78-93-3)	STEL	300 ppm
	TWA	200 ppm
Toluene (108-88-3)	TWA	20 ppm

Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment)

Components	Type	Value
Methyl ethyl ketone (78-93-3)	STEL	300 mg/m3 100 ppm
	TWA	150 mg/m3 50 ppm
Toluene (108-88-3)	TWA	188 mg/m3 50 ppm

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
Methyl ethyl ketone (78-93-3)	PEL	590 mg/m3 200 ppm

US. OSHA Table Z-2 (29 CFR 1910.1000)

Components	Type	Value
Toluene (108-88-3)	Ceiling	300 ppm
	TWA	200 ppm

Engineering controls Ensure adequate ventilation, especially in confined areas. Prevent electrostatic charge build-up by using common bonding and grounding techniques.

Personal protective equipment

Eye / face protection If splashes are likely to occur, wear: Chemical goggles are recommended. Face-shield. Safety glasses.

Skin protection Wear appropriate chemical resistant gloves. Chemical resistant gloves. Wear chemical protective equipment that is specifically recommended by the manufacturer. It may provide little or no thermal protection.

Respiratory protection	Use a positive-pressure air-supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air-purifying respirators may not provide adequate protection. Use a positive-pressure air-supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air-purifying respirators may not provide adequate protection. If ventilation is not sufficient to effectively prevent buildup of aerosols or mists, appropriate NIOSH/MSHA respiratory protection must be provided.

9. Physical & Chemical Properties

Appearance	Liquid.
Physical state	Liquid.
Form	Liquid.
Color	Amber.
Odor	Solvent.
Odor threshold	Not available.
pH	Not available.
Vapor pressure	< 100 kPa estimated
Vapor density	Not available.
Boiling point	132.8 - 231.08 °F (56 - 110.6 °C)
Melting point/Freezing point	-137.1 °F (-93.967272793 °C) estimated
Solubility (water)	Not available.
Specific gravity	0.849
Relative density	Not available.
Flash point	1.40 °F (-17.00 °C)
Flammability limits in air, upper, % by volume	12.8 %
Flammability limits in air, lower, % by volume	1 %
Auto-ignition temperature	759 - 997 °F (403.89 - 536.11 °C)
Evaporation rate	> 1 (n-Butyl Acetate = 1)
Percent volatile	74.8 % w/w
Other data	
Flammability class	Flammable IB estimated
Flash point class	Flammable IB

10. Chemical Stability & Reactivity Information

Chemical stability	Risk of explosion. Risk of ignition.
Conditions to avoid	Heat, flames and sparks. Avoid temperatures exceeding the flash point.
Incompatible materials	Strong oxidizing agents. Ammonia. Amines. Isocyanates. Acids. Caustics. Do not mix with other chemicals. Strong acids, alkalies and oxidizing agents.
Hazardous decomposition products	At thermal decomposition temperatures, carbon monoxide and carbon dioxide.
Possibility of hazardous reactions	Will not occur. Hazardous polymerization does not occur.

11. Toxicological Information

Toxicological data

Product	Species	Test Results
CORE ADHESIVE SB-100 (Mixture)		
Acute		
Dermal		
LD50	Rabbit	27720 mg/kg
Inhalation		
LC50	Rat	91.3 mg/l/4h

Components	Species	Test Results
METHYL ETHYL KETONE (78-93-3)		
Acute		
Dermal		
LD50	Rabbit	6480 mg/kg
Inhalation		
LC50	Mouse	11000 mg/l, 45 Minutes
	Rat	11700 mg/l, 4 Hours
Oral		
LD50	Mouse	670 mg/kg
	Rat	2737 mg/kg
		2300 - 3500 mg/kg
Other		
LD50	Mouse	1660 g/kg, 24 Hours
	Rat	12290 mg/kg, 24 Hours
TOLUENE (108-88-3)		
Acute		
Dermal		
LD50	Rabbit	8390 mg/kg
		14.1 ml/kg
	Rat	12124 mg/kg
Inhalation		
LC50	Mouse	400 mg/l, 24 Hours
	Rat	8000 mg/l, 4 Hours
		12.5 mg/l/4h
Oral		
LD50	Rat	636 mg/kg
		2.6 g/kg
Other		
LD50	Mouse	59 mg/kg
		1.15 g/kg
	Rat	1332 mg/kg
		1.64 g/kg

* Estimates for product may be based on additional component data not shown.

Chronic effects Prolonged inhalation may be harmful. Prolonged or repeated exposure may cause lung injury. Repeated absorption may cause disorder of central nervous system, liver, kidneys and blood. Prolonged exposure may cause chronic effects.

Subchronic effects Kidney injury may occur.

Carcinogenicity

ACGIH Carcinogens

TOLUENE (CAS 108-88-3) A4 Not classifiable as a human carcinogen.

IARC Monographs. Overall Evaluation of Carcinogenicity

TOLUENE (CAS 108-88-3) 3 Not classifiable as to carcinogenicity to humans.

Reproductive effects Potential embryo-fetal toxicity and teratogenicity.

Teratogenicity Avoid exposure to women during early pregnancy.

Further information Symptoms may be delayed.

12. Ecological Information

Ecotoxicological data

Components		Species	Test Results
METHYL ETHYL KETONE (78-93-3)			
Crustacea	EC50	Daphnia	5091 mg/L, 48 Hours
Fish	LC50	Fish	3220 mg/L, 96 Hours
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	4025 - 6440 mg/l, 48 hours
Fish	LC50	Sheepshead minnow (Cyprinodon variegatus)	> 400 mg/l, 96 hours
TOLUENE (108-88-3)			
Crustacea	EC50	Daphnia	11.3 mg/L, 48 Hours
Fish	LC50	Fish	25 mg/L, 96 Hours
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	5.46 - 9.83 mg/l, 48 hours
Fish	LC50	Coho salmon,silver salmon (Oncorhynchus kisutch)	5.5 mg/l, 96 hours

* Estimates for product may be based on additional component data not shown.

Ecotoxicity Components of this product are hazardous to aquatic life. In high concentrations, this product may be dangerous to aquatic life and fouling to shorelines. No data available for this product.

Environmental effects Harmful to aquatic organisms. An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Persistence and degradability Not available.

Mobility in environmental media This product is miscible in water.

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 incinerate sealed containers. Do not allow this material to drain into sewers/water supplies. If discarded, this product is considered a RCRA ignitable waste, D001. Dispose in accordance with all applicable regulations.

Contaminated packaging Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport Information

TDG

UN number	UN1133
Proper shipping name	Adhesives, containing a flammable liquid
Hazard class	3
Packing group	II
Special provisions	149, B52, IB2, T4, TP1, TP8
Labels required	3
Packaging exceptions	150
Packaging non bulk	173
Packaging bulk	242

IATA

UN number	UN1133
UN proper shipping name	Adhesives, containing a flammable liquid
Transport hazard class(es)	3
Packing group	II
Labels required	3

IMDG

UN number	UN1133
UN proper shipping name	Adhesives, containing a flammable liquid
Transport hazard class(es)	3
Packing group	II

Labels required 3

IATA; IMDG; TDG

General Substance may be transported hot. IMDG Regulated Marine Pollutant.

15. Regulatory Information

Canadian regulations This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all the information required by the CPR.

WHMIS status Controlled

WHMIS classification B2 - Flammable Liquids
D1A - Immediate/Serious-VERY TOXIC
D2A - Other Toxic Effects-VERY TOXIC
D2B - Other Toxic Effects-TOXIC

WHMIS labeling

Inventory status

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	No
Canada	Domestic Substances List (DSL)	No
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	No
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)	No
New Zealand	New Zealand Inventory	No
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	No

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

16. Other Information

Further information This safety datasheet only contains information relating to safety and does not replace any product information or product specification. HMIS® is a registered trade and service mark of the NPCA.

HMIS® ratings Health: 2*
Flammability: 3
Physical hazard: 1

NFPA ratings Health: 2
Flammability: 3
Instability: 1

Disclaimer

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This data sheet contains changes from the previous version in section(s):

This document has undergone significant changes and should be reviewed in its entirety.