

MATERIAL SAFETY DATA SHEET
SPI 2400S

SECTION 1: PRODUCT INFORMATION

PRODUCT NAME: SPI 2400S	PRODUCT USE: Petroleum: Steam Additive
MANUFACTURER: Buckman Laboratories of Canada, Ltd. 351 Joseph Carrier Vaudreuil-Dorion, Quebec J7V 5V5	EMERGENCY TELEPHONE NUMBER: (450) 424 - 4404

SECTION 2: PREPARATION INFORMATION

MSDS PREPARED BY: Buckman Laboratories of Canada, Ltd.	DATE PREPARED: Jan. 16, 2002 (M/D/Y)
TELEPHONE: (450) 424-4404	SUPERCEDES: Mar 12, 2001

SECTION 3: HAZARDOUS INGREDIENTS

INGREDIENT	CHEMICAL NAME	CAS REGISTRY #	% BY WT.

INGREDIENT	ACUTE ORAL LD50 (mg/kg)	ACUTE DERMAL LD50 (mg/kg)	ACUTE INHALATION LC50 (ppm)	TLV

The components are not hazardous according to WHMIS classifications and are not listed on the Ingredient Disclosure List.

SECTION 4: PHYSICAL DATA

APPEARANCE: Clear, brown to amber	PHYSICAL STATE: Liquid	ODOUR: Mild	ODOUR THRESHOLD: Not available
DENSITY (g/ml @ 25°C): 0.90	EVAPORATION RATE: Not available	VAPOUR DENSITY: Not available	VAPOUR PRESSURE: Not available
pH (neat): Not applicable	pH (100 ppm in water) 6.5 - 7.5	BOILING POINT: > 150 °C	FREEZING / MELTING POINT: - 19°C

OIL/WATER PARTITION COEFFICIENT: Not available	SOLUBILITY: Slightly soluble in water
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SECTION 5: FIRE AND EXPLOSION HAZARDS

FLASH POINT & METHOD: None below 100 °C (TCC)	AUTO-IGNITION TEMPERATURE: Not available
UPPER FLAMMABLE LIMIT (% vol. in air): Not available	LOWER FLAMMABLE LIMIT (% vol. in air): Not available
FLAMMABILITY CONDITIONS: Liquid can burn upon heating to temperatures at or above the flash point.	HAZARDOUS COMBUSTION PRODUCTS: Oxides of carbon, oxides of nitrogen.
EXTINGUISHING MEDIA: Use water spray to cool fire exposed surfaces and to protect personnel. Water fog, carbon dioxide, foam or dry chemical may be used to extinguish fire.	SPECIAL FIRE FIGHTING PROCEDURES: Wear NIOSH approved self-contained breathing apparatus, and full protective gear. Isolate "fuel" supply from fire.
EXPLOSION (Sensitivity to Mechanical Impact): Empty containers retain product residue (liquid and/or vapor) and can be dangerous. Avoid pressurizing, cutting, welding, brazing, soldering, drilling, or grinding the container.	EXPLOSION (Sensitivity to Static Discharge): Empty containers retain product residue (liquid and/or vapor) and can be dangerous. Avoid exposing such containers to heat, flame, sparks, static electricity or other sources of ignition.

SECTION 6: REACTIVITY

CHEMICAL STABILITY: Stable under normal conditions of use and storage.	CONDITIONS OF UNSTABILITY: None known.
INCOMPATIBILITY WITH OTHER SUBSTANCES: Strong acids, strong bases, strong oxidizers, and reducing agents.	HAZARDOUS DECOMPOSITION PRODUCTS: Oxides of carbon, oxides of nitrogen.

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SECTION 7: TOXICOLOGICAL DATA

PRIMARY ROUTES OF EXPOSURE:

Eyes:	Yes	Skin:	Yes	Inhalation	Yes	Ingestion:	No Data
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EFFECTS FROM ACUTE EXPOSURE:

Eye exposure:	Mild irritant. Effects may vary depending on the length of exposure, solution concentration and first aid measures.
Skin exposure:	Mild irritant. Effects may vary depending on the length of exposure, solution concentration, and first aid measures.
Inhalation:	May cause irritation of mucous membranes and lungs. Exposed individuals should be monitored for respiratory distress, bronchitis or pneumonia.
Ingestion:	Ingestion is not expected to be a primary route of exposure.

EFFECTS FROM CHRONIC EXPOSURE:

The effects from chronic exposure to this product have not been fully evaluated.

ACUTE EFFECTS (Exposure Limits):

Acute Oral LD50:	5000 - 10000 mg/kg (female rat)
Acute Dermal LD50:	8000 mg/kg
Acute Inhalation LC50:	No data available.

IRRITANT EFFECTS:	May cause mild eye and skin irritation.
SENSITIZATION EFFECTS:	None known.
CARCINOGENIC POTENTIAL:	Not listed in any of OSHA Standards Section 1910.1200 sources as carcinogenic.
REPRODUCTIVE TOXICITY:	None known.
TERATOGENICITY:	None known.
MUTAGENICITY:	None known.
SYNERGISTIC EFFECTS:	None known.

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SECTION 8: PREVENTION MEASURES

PERSONAL PROTECTION EQUIPMENT:
Hands: Chemical resistant gloves required, chemically impermeable rubber gloves recommended.
Eyes: Safety glasses required, safety goggles recommended.
Respiratory: If misting can occur, a NIOSH approved respirator is recommended.
Body Protective Clothing: Safety protective clothing such as work coveralls or long sleeve shirt and trousers is required. Chemical resistant clothing (e.g. TYVEK suit) is recommended.
Footwear: Steel-toed chemical resistant boots recommended.
Other: An emergency shower complete with eye-wash fountain is strongly recommended.

ENGINEERING CONTROLS:
General mechanical ventilation system is adequate. However, local exhaust system is preferred to maintain airborne concentrations below the recommended occupational exposure limits, whenever misting conditions are present or the material is used in a confined space.

LEAK AND SPILL PROCEDURES:
Before responding to a spill or leak of this product, review each section of this MSDS. Follow the recommendations given in the "Handling Procedures and Equipment" section. Check the "Fire and Explosion Hazards" section to determine if the use of non-sparking tools is merited. Insure that spilled or leaked product does not come into contact with materials listed as incompatible. If irritating fumes are present, consider evacuation of affected areas.
Initially minimize area affected by the spill or leak. Block any potential routes to water systems. Place in a properly labeled container for later disposal. Larger spills may require a vacuum.

WASTE DISPOSAL METHODS:
Disposal shall be in accordance with all applicable federal, provincial and municipal waste regulations.

HANDLING PROCEDURES AND EQUIPMENT:
Do not handle unless the safety precautions have been read and understood. Avoid skin and eye contact. Avoid inhalation of dust or vapours. Do not puncture, drag or slide containers. Do not smoke in any chemical handling or storage area. Wash hands before eating.

STORAGE REQUIREMENTS:
Store in a cool dry well-ventilated location. Protect from freezing. Keep containers tightly closed. Store away from incompatible materials and ignition sources.

SPECIAL SHIPPING INFORMATION:
Not regulated under TRANSPORT OF DANGEROUS GOODS regulations.

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SECTION 9: FIRST AID MEASURES

EYE EXPOSURE:

Flush immediately with copious amounts of clean, cool water for at least 15 minutes. Take exposed individual to a health care professional for further evaluation.

SKIN EXPOSURE:

Wash exposed area with plenty of soap and water. Repeat washing. Remove contaminated clothing and wash thoroughly before reuse. If irritation persists consult a health care professional.

INHALATION:

If exposure by inhalation is suspected, use proper respiratory protection to immediately move exposed individual to fresh air. If individual experiences nausea, headache, dizziness, has difficulty in breathing or is cyanotic, seek a health care professional immediately.

INGESTION:

DO NOT INDUCE VOMITING. Rinse with copious amounts of water or milk, first. Irrigate the esophagus and dilute stomach contents by slowly giving one (1) to two (2) glasses of water or milk. Avoid giving alcohol or alcohol related products. In cases where the individual is semi-comatose, comatose or convulsing, DO NOT GIVE FLUIDS BY MOUTH. Seek a health care professional immediately.

SECTION 10: REGULATORY CLASSIFICATIONS

TDG CLASSIFICATION:

Not regulated under TDG Regulations.

Pest Control Products Act: REGISTRATION NUMBER:

Not applicable

U.S. FDA REGULATIONS: FDA (21 CFR) Section(s):

176.210

WHMIS CLASSIFICATION:

Not a controlled product.

DOMESTIC SUBSTANCES LIST (DSL):

All Components are listed on the DSL.

HAZARD RATING:

RATING	HEALTH	FLAMMABILITY	REACTIVITY
HMIS	0	1	0
NFPA	0	1	0

While the information and recommendations set forth are believed to be accurate as of the date of the Material Safety Data Sheet, Buckman Laboratories of Canada, Ltd. makes no warranty with respect thereto and disclaims all liability from reliance thereon. Buckman Laboratories of Canada, Ltd. urges each customer or recipient of this MSDS to study it carefully to become aware of and understand the hazards associated with the product. To promote the safe use and handling of this product, each customer or recipient should distribute this MSDS to the product users.

This MSDS expires Jan. 16, 2005

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