



MATERIAL SAFETY DATA SHEET

SECTION 1 — PRODUCT AND COMPANY IDENTIFICATION

Product name: ELITE GRAFFITI REMOVER

Chemical family: Mixture of Sodium Hydroxide and Surfactants in Ethanol/Hydrocarbon Solution.

Product use: Removal of paint & graffiti from masonry, mild steel, & stainless steel surfaces. Use as directed only.

Product Description: Brown-red liquid, hydrocarbon odor.

Supplier name and address:

BK Enterprises

3970 Youngfield Street

Wheat Ridge, CO, U.S.A. 80033

Phone: 303-865-8800 (7:30 AM to 4:30 PM, Monday to Friday, MST)

Emergency Tel.#: CHEM-TEL – North America 1-800- 255-3924 or Worldwide Intl. + 01- 813-248-0585

SECTION 2 — HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW



Danger! Flammable and corrosive liquid and vapor. Contents may ignite when exposed to heat, sparks, flame and other ignition sources. Causes severe skin, eye and digestive tract burns. Harmful if swallowed. Product may enter lungs following ingestion and cause damage. Cause respiratory tract irritation. Could cause headache, drowsiness or other effects to the central nervous system. Contains material which may cause adverse liver and kidney effects. Possible developmental hazard. Contains material that may adversely affect the developing fetus. Flammable liquid; may ignite if exposed to heat, flame or other ignition source. Not reactive. Release to the environment may cause harm.

POTENTIAL HEALTH EFFECTS

Target organs: Eyes, skin, respiratory system, digestive system, liver, kidneys, central nervous system.

Routes of exposure: Skin contact, skin absorption, eye contact, inhalation, ingestion.

Signs and symptoms of short-term (acute) exposure:

Inhalation: Harmful if inhaled. Inhalation may cause severe irritation and corrosive damage to the nose, throat and upper respiratory tract. Inhalation could also cause dizziness, headache, drowsiness, nausea, vomiting and other central nervous system effects. In more severe cases, could cause pulmonary edema (fluid accumulation in lungs).

Skin: Direct contact with skin may cause corrosive burns, deep ulceration and possibly permanent scarring. Burns may not be immediately painful. Product may be absorbed.

Eyes: Direct contact with eyes may cause severe burns, ulceration and possibly permanent blindness. Vapors are irritating to the eyes.

Ingestion: If ingested, may cause severe irritation and corrosive damage to the mouth, throat and stomach, as well as adverse central nervous system effects. Symptoms may include dizziness, headache, drowsiness, nausea, vomiting, a severe burning sensation, abdominal pain, perforation of the intestinal tract and possibly death. This product may present an aspiration hazard; aspiration into the lungs following ingestion may cause life-threatening pulmonary edema or chemical pneumonitis.

Chronic effects: Repeated or prolonged exposure to low levels may result in drying, cracking and defatting of the skin (dermatitis). Prolonged or repeated inhalation exposure may cause adverse liver, kidney and nervous system effects.

Carcinogenic status: See TOXICOLOGICAL INFORMATION, Section 11.

Additional health hazards: Possible birth defect hazard. For further information, see TOXICOLOGICAL INFORMATION, Section 11

SECTION 3 — COMPOSITION/INFORMATION ON INGREDIENTS

CHEMICAL NAME	CAS #	% w/w
Surfactant	Proprietary	5-10%
Alkyl Alcohol Salt	Proprietary	5-10%
Sodium Hydroxide	1310-73-2	5-10%
Solvent Naphtha	Proprietary	10-30%
Ethanol	64-17-5	30-60%

NOTE (1): ALL WHMIS required information is included in appropriate sections based on the ANSI Z400.1-2004 format. 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. This material is classified as hazardous under OSHA regulations (29CFR 1910.1200).

SECTION 4 — FIRST AID MEASURES

Inhalation: If inhaled, immediately remove victim to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Obtain medical attention if adverse effect continues after removal to fresh air.

Skin contact: Immediately remove contaminated clothing and shoes. Wash skin thoroughly with mild soap and running water. Obtain medical attention if irritation persists. Launder clothing before reuse.

Eye contact: Immediately flush eyes with running water for a minimum of 15 minutes. Obtain medical attention immediately if adverse effect continues after flushing.

Ingestion: DO NOT induce vomiting. Never give anything by mouth to an unconscious person. Obtain medical attention immediately. Guard against aspiration into the lungs.

Conditions aggravated by exposure: May aggravate pre-existing skin, eye and respiratory problems.

Recommendations to physicians: Treat symptoms and eliminate overexposure.

SECTION 5 — FIRE FIGHTING MEASURES

Fire hazards/conditions of flammability: Flammable liquid. This material will ignite or explode when exposed to heat, sparks, flames, or other sources of ignition (e.g. static electricity, pilot lights, or mechanical/electrical equipment). Vapors are heavier than air and will collect in low-lying areas and confined spaces. Vapors can travel to a source of ignition and flash back causing an explosion and fire. Closed containers may rupture if exposed to excess heat or flame due to a build-up of internal pressure. Liquid will float and can be re-ignited at water's surface. Contact with some metals may cause release of flammable hydrogen gas.

Flammability classification (OSHA 29 CFR 1910.1200): Class 1B Flammable Liquid.

Flash point: 12.5°C / 55°F

Auto-ignition temperature: Not determined for product: For main component, Ethanol: 363°C / 685°F

Oxidizing properties: None known

Lower flammable limit (% by vol.): 3.3% (ethanol), 0.9% hydrocarbons

Upper flammable limit (% by vol.): 19.0% (ethanol), 6.0% (hydrocarbons)

Explosion data:

Product is insensitive to normal mechanical impacts. Product is potentially sensitive to static discharge: vapors may be sensitive to discharge. Avoid static discharge by grounding containers and transfer equipment.

Suitable extinguishing media: Foam, dry chemical or carbon dioxide. **Using water may be ineffective and spread fire.**

Special fire-fighting procedures/equipment: Firefighters should wear proper chemically protective equipment and respiratory protection as conditions warrant. Move containers from fire area if it can be done without risk. Water spray or fog may be useful in minimizing or dispersing vapors, and cooling equipment and containers exposed to heat and flame. Avoid spreading burning liquid with water spray used for cooling purposes; water fog may be preferable for this purpose.

Hazardous combustion products: Carbon oxides and other irritating fumes and smoke.

SECTION 6 — ACCIDENTAL RELEASE MEASURES

Personal precautions: Spillages may be very slippery. Restrict access to area until completion of clean-up. Ensure clean-up is conducted by trained personnel only. All persons dealing with clean-up should wear the appropriate chemically protective equipment. Keep all other personnel upwind and away from the spill/release. Refer to Section 8, EXPOSURE CONTROLS AND PERSONAL PROTECTION, for additional information on acceptable personal protective equipment.

Environmental precautions: Ensure spilled product and wash solution does not enter sewers or confined spaces.

Spill response/Cleanup: Eliminate all sources of ignition. Ventilate area of release. Stop leak if you can do so without risk. Use non-sparking tools. Contain and absorb spilled liquid with non-combustible, inert absorbent material (e.g. sand, earth), then place absorbent material into a suitable container for later disposal (see Section 13). Wash site of spillage thoroughly with water and suitable detergent. Contaminated absorbent material may pose the same hazards as the spilled product. Notify the appropriate authorities as required.

Prohibited materials: None known.

Special spill response procedures: If a spill/release in excess of EPA reportable quantity is made into the environment, immediately notify the national response center in the United States (phone: 1-800-424-8002).

DOT/CERCLA Reportable quantity (RQ): Sodium Hydroxide (RQ 1000 lbs.)

SECTION 7 — HANDLING AND STORAGE

Safe handling procedures: This material is a flammable, corrosive liquid. Wear chemically protective equipment during handling. Use in a well-ventilated area. Avoid inhalation of vapors. Avoid contact with skin, eyes, and clothing. Wash thoroughly after handling. Keep away from heat, flame, sparks, or ignition sources. Ground all equipment during handling. Keep away from acids and other incompatible materials. Use caution when opening cap. Keep container tightly closed when not in use. Assume empty containers contain residues, which are hazardous.

General hygiene considerations: Avoid inhalation of vapors and mists. Avoid contact with eyes, skin and clothing. Do not eat, drink or smoke when working. Upon completion of work, wash hands before eating, drinking, smoking or use of toilet facilities. Remove soiled clothing and wash it thoroughly before reuse. Contaminated leather and shoes may require disposal.

Storage requirements: Store in a cool, dry, well-ventilated area away from sources of heat, ignition and sunlight. Store containers away from incompatible chemicals (see Section 10, Stability and Reactivity). Containers should be separated from oxidizing materials by a minimum distance of 20 ft. or by a barrier of non-combustible material at least 5 ft. high having a fire-resistance rating of at least 0.5 hours. Refer to NFPA 30, *Flammable and Combustible Liquids Code*, for additional information on storage. Storage area should be clearly identified, clear of obstruction and accessible only to trained and authorized personnel. Inspect periodically for damage or leaks. No smoking in the area. Keep containers tightly closed at all times.

Special packaging materials: Store product in either original container or in containers made of same material; consult with manufacturer for proper containers. Do not store product in glass or metal containers or in pressure washers or sprayers

SECTION 8 — EXPOSURE CONTROLS AND PERSONAL PROTECTION

Ventilation and engineering controls: Local mechanical exhaust / extraction ventilation is recommended if used indoors on a continuous basis. Use explosion-proof, flame resistant construction materials. Do not use aluminium, tin, zinc, galvanized iron, glass or wood products.

Exposure Limits:

CHEMICAL NAME	CAS #	EXPOSURE LIMITS IN AIR (NE = Not Established.)							
		ACGIH-TLVs		OSHA-PELs		NIOSH-RELs		NIOSH	OTHER
		TWA mg/m ³	STEL mg/m ³	TWA mg/m ³	STEL mg/m ³	TWA mg/m ³	STEL mg/m ³	IDLH mg/m ³	mg/m ³
Surfactant	8051-30-7	NE	NE	NE	NE	NE	NE	NE	NE
Alkyl Alcohol Salt	68585-34-2	NE	NE	NE	NE	NE	NE	NE	NE
Sodium Hydroxide	1310-73-2	NE	2 (ceiling)	NE	NE	2	NE	NE	NE
Solvent Naphtha	64742-88-7	100 ppm	NE	100 ppm	NE	NE	NE	NE	NE
Ethanol	64-17-5	ACIGH TLV = 1800ppm, NIOSH REL=1900 ppm, OSHA PEL=1900 ppm, NIOSH IDLH = 3000 ppm based on 10% of LEL . DFG data – 900 ppm MAK, PEAK = 1800 ppm 15 min. average value, 1-hr interval, 4 per shift, DFG MAK Pregnancy Risk Classification: C DFG MAK Germ Cell Mutagen Category: 5							

SECTION 8 — EXPOSURE CONTROLS AND PERSONAL PROTECTION (Continued)

Respiratory protection: Respiratory protection is required if airborne concentrations are above recommended TLVs or are not known. If respiratory protection is needed, use only protection authorized in the U.S. Federal OSHA Respiratory Protection Standard (29 CFR 1910.134) or equivalent U.S. State standards, and the Canadian CSA Standard Z94.4-02, *Selection, Care and Use of Respirators*. Oxygen levels below 19.5% are considered IDLH by OSHA. In such atmospheres, in emergency situations or when oxygen levels are unknown, use of a fitted full-facepiece pressure/demand SCBA or a fitted full facepiece, supplied air respirator with auxiliary self-contained air supply is required under OSHA's Respiratory Protection Standard (1910.134-1998).

Hand protection: It is recommended that protective gloves impervious to the material be worn at all times during use. Use triple gloves for spill response. If necessary, refer to U.S. OSHA 29 CFR 1910.138 and appropriate standards of Canada.

Eye / face protection: Use chemical splash goggles when a potential for eye contact exists. A full face shield should be worn when handling more than 1 gallon of product. If necessary, refer to U.S. OSHA 29 CFR 1910.133, the Canadian CSA Standard Z94.3-02, *Industrial Eye and Face Protection*. An eyewash station and safety shower should be made available in the immediate working area.

Skin protection and other protective equipment: Use body protection appropriate for task. An apron or other impermeable body protection is suggested. Full-body chemical protective clothing is recommended for emergency response procedures. If necessary, refer to the OSHA Technical Manual (Section VII: Personal Protective Equipment), or appropriate Standards of Canada. If a hazard of injury to the feet exists due to falling objects, rolling objects, where objects may pierce the soles of the feet or where employee's feet may be exposed to electrical hazards, use foot protection, as described in U.S. OSHA 29 CFR 1910.136 and the Canadian CSA Standard Z195-02, *Protective Footwear*. An eyewash station and safety shower should be made available in the immediate working area.

SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES

Physical state, odor and appearance: Brown-red liquid, hydrocarbon odor.

Specific gravity: 0.9

Solubility in water: Partially miscible.

Volatiles (% by weight): Not established.

Vapor pressure (PSIG): Not established.

Vapor density (Air = 1): >1

Boiling point: 172.4°F (78°C)

Freezing point: Not established.

Evaporation rate (n-Butyl acetate = 1): Not established.

pH: 14 (very alkaline)

Flash point: 12.5°C / 55°F

SECTION 10 — REACTIVITY AND STABILITY DATA

Stability and reactivity: Stable under the recommended storage and handling conditions prescribed. Contact with aluminium, tin, zinc or galvanized iron may liberate flammable hydrogen gas. Product may absorb Carbon dioxide from the air.

Hazardous polymerization: Will not occur.

Conditions to avoid: Avoid sources of heat, flame, static discharge and direct sunlight.

Materials to avoid (incompatibles): Acids, strong oxidizing agents, ammonium compounds.

Hazardous decomposition products: *Combustion:* Ammonia, sodium carbonate. *Hydrolysis:* None known. Refer to Section 5 for additional 'Hazardous combustion products'.

SECTION 11 — TOXICOLOGICAL INFORMATION

Toxicological data: There is no available data for the product itself, only for the ingredients. See below for individual ingredient acute toxicity data for components in 1% concentration or greater. Additional data is available but is not presented in this MSDS. Contact BK Enterprises for more information. See next page for tabulated information.

SECTION 11 — TOXICOLOGICAL INFORMATION (Continued)

Ingredients	LC ₅₀ (4hr) inhalation, rat	LD ₅₀ (mg/kg) oral, rat	LD ₅₀ (mg/kg) dermal, rabbit
Sodium Hydroxide	Not established	273	Not established
Surfactant	Not established.	Not established	Not established.
Naphtha Solvent	>5,500 ppm	>5000	>3000
Alkyl Alcohol Salt	Not established.	Not established	Not established.
Ethanol	20,000 ppm / 10 hrs.	7060	Not available.

Carcinogenicity: Components of this product are listed by agencies tracking the carcinogenic potential of chemical compounds, as follows:

Ethanol: ACGIH TLV-A4 (Not Classifiable as a Human Carcinogen); MAK-5 (Substances with carcinogenic and genotoxic effects, the potency of which is considered to be so low that, provided the MAK and BAT values are observed, no significant contribution to human cancer is to be expected.)

C10-C16 Alkyl (Alcohol) Ethoxylate Sulfuric Acid Sodium Salt: ACGIH TLV-A4 (Not Classifiable as a Human Carcinogen);

None of the remaining ingredients listed are classified by IARC, ACGIH, NTP, MAK, EPA, NIOSH or OSHA as carcinogenic.

Reproductive effects, Teratogenicity, Mutagenicity: This product contains Ethanol, which is a known human reproductive toxin when ingested as alcoholic beverages. No reproductive effects have been reported following Ethanol exposure in the workplace. It is known to cause mutations to germ cells and somatic cells in animals. In addition, this material causes embryotoxicity, fetotoxicity and teratogenicity in animals, in the presence of maternal toxicity. The Alkyl Alcohol Salt component may be a potential developmental hazard by ingestion. It is known to cause mutations to germ cells and somatic cells in animals. In addition, this material causes embryotoxicity, fetotoxicity and teratogenicity in animals, in the presence of maternal toxicity.

Sensitization to material: None known. **Synergistic materials:** Not available.

Other important hazards: CNS depression may result from exposure.

SECTION 12 — ECOLOGICAL INFORMATION

Ecotoxicological information: The ecological characteristics of this product have not been fully investigated. The product should not be allowed to enter drains or water courses or be deposited where it can affect ground or surface waters. Do not discharge product unmonitored into the environment.

Chemical fate information: There is no data available on the product itself.

SECTION 13 — DISPOSAL CONSIDERATIONS

Handling for disposal: Handle according to recommendations listed in Section 7.

Methods of disposal: Dispose in accordance with all applicable federal, state and local regulations. Contact your local, state or federal environmental agency for specific rules.

RCRA: For disposal of unused or waste material, check with local, state and federal environmental agencies.

SECTION 14 — TRANSPORTATION INFORMATION

U.S. DOT transportation regulation information: This product is classified as Dangerous Goods under regulations of the U.S. DOT, 49 CFR as follows:

Proper Shipping Name: Flammable Liquids, Corrosive, n.o.s. (Ethanol, Sodium Hydroxide)

Note: *Quart and pint containers are considered ORM-D under 49CFR173.150.*

Hazard Class- Primary: **3 (Flammable)**

Secondary: **8 (Corrosive)**

Identification No: **UN 2924**

Packing Group: **II**

Hazard Labels: **Class 3 (Flammable); Class 8 (Corrosive)**

RQ LBS: **1000 lb (Sodium hydroxide)**

Marine Pollutant: **None**

Special Transportation Notes: This material may be shipped by ground within the United States in limited quantities under the heading of Other Regulated Materials – D (ORM-D). Refer to 49 CFR Part 173.202 for appropriate packaging information when shipping in non-bulk containers.



SECTION 14 — TRANSPORTATION INFORMATION (Continued)

Transport Canada transportation regulation information: This product is classified as Dangerous Goods, per regulations of Transport Canada. The use of the above U.S. DOT information from the U.S. 49 CFR regulations is allowed for shipments that originate in the U.S. For shipments via ground vehicle or rail that originate in Canada, the following information is applicable
 Proper Shipping Name: **Flammable Liquids, Corrosive, n.o.s. (Ethanol, Sodium Hydroxide)**
 Hazard Class Number and Description: **3 (Flammable), 8 (Corrosive)**
 UN Identification Number: **UN 2924**
 Packing Group: **II**
 Hazard Label(S) Required: **Class 3 (Flammable); Class 8 (Corrosive)**
 Special Provisions: **16**
 Explosive Limit & Limited Quantity Index: **0.5**
 ERAP Index: **None**
 Passenger Carrying Ship Index: **None**
 Passenger Carrying Road or Rail Vehicle Index: **1**
 Marine Pollutant: **None**

SECTION 15 — REGULATORY INFORMATION

U.S. FEDERAL REGULATION INFORMATION:

TSCA information: All ingredients are listed on the TSCA inventory.

DOT/CERCLA Reportable Quantity (RQ): Sodium hydroxide = 1000 lb (45.4 kg)

SARA TITLE III:

Sec. 302, Extremely Hazardous Substances, 40 CFR 355: No Extremely Hazardous Substances are present.

Sec. 311 and 312, MSDS Requirements, 40 CFR 370 Hazard Classes: Immediate (Acute); Delayed (Chronic); Fire. Under SARA Sections 311 and 312, the EPA has established threshold quantities for the reporting of hazardous chemicals. The current thresholds are 500 pounds for the threshold planning quantity (TPQ), whichever is lower, for extremely hazardous substances and 10,000 pounds for all other hazardous chemicals.

Sec. 313, Toxic Chemicals Notification, 40 CFR 372: This material is not subject to TSCA notification requirements, since it does not contain any Toxic Chemical constituents.

California Proposition 65: The Ethanol component is on the Proposition 65 chemical lists; however, this listing is specifically related to alcoholic beverages and is not applicable to industrial exposure of this material.

State Right-to-Know Laws: This preparation contains components that are on the Right-to-Know Lists of several states. The following table contains the components list and the States that list the component on their Right-to-Know Lists. Any state not listed follows the OSHA list of the US Federal Government.

CHEMICAL NAME	STATES REQUIRING NOTIFICATION
Naphtha Solvent	None
Surfactant	None
Sodium Hydroxide	CA, NJ, PA, MN, MA
Alkyl Alcohol Salt	None
Ethanol	CA, NJ, PA, MN, MA

SECTION 15 — REGULATORY INFORMATION (Continued)

CANADIAN FEDERAL REGULATION INFORMATION:

Canadian DSL/NDSL Inventory status: Components of this product are listed on the DSL Inventory.

Canadian Environmental Protection Act (CEPA) Priorities Substances Lists: No component of this product is on the CEPA Priorities Substances Lists.

Canadian WHMIS classification and symbols:

Class E: Corrosive

Class B2: Flammable Liquid

Class D2A, D2B: Material Causing Other Toxic Effects (Toxicity-Irritation)



SECTION 16 — OTHER INFORMATION

Legend: ACGIH: American Conference of Governmental Industrial Hygienists
CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act of 1980
NIOSH: National Institute of Occupational Safety and Health
CAS: Chemical Abstract Services
DOT: Department of Transportation
IARC: International Agency for Research on Cancer
N/Av: not applicable
OSHA: Occupational Safety and Health Administration
RCRA: Resource Conservation and Recovery Act
SARA: Superfund Amendments & Reauthorization Act
TSCA: Toxic Substance Control Act
RTECs: Registry of Toxic Effects of Chemical Substances
HSDB: Hazardous Substances Data Bank
CFR: Code of Federal Regulations
EPA: Environmental Protection Agency
MST: Mountain Standard Time
N/Av: not available
NTP: National Toxicology Program
PEL: Permissible Exposure Limit
TLV: Threshold Limit Values
TWA: Time Weighted Average

Disclaimer:

The information in this MSDS was obtained from sources we believe are reliable. We believe the information was accurate at the time it was compiled. However, no warranty, express or implied, including, without limitation, any warranty of **fitness for a particular purpose or merchantability**, is made as to the accuracy, reliability or completeness of this information, and all such warranties are disclaimed. The conditions of storing, handling and use being beyond the manufacturer's control, it is the sole responsibility of the user to determine all appropriate precautions for the safe handling and use of this product. The information contained herein pertains only to this product and not to its use in combination with any other materials. It is the user's responsibility to comply with all applicable federal, state, and local laws. Manufacturer disclaims all liability for incidental or consequential damages arising out of or in connection with the use of, or inability to use, this product.

Prepared by: BK Enterprises
Telephone No.: 303-865-8800
Preparation date: February 12, 2009

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Preparation Date: February 24, 2009



MATERIAL SAFETY DATA SHEET

SECTION 1 — PRODUCT AND COMPANY IDENTIFICATION

Product identifier: GENERAL PURPOSE GRAFFITI REMOVER

Chemical family: Mixture of petroleum solvent, surfactant, terpene and glycol.

Product use: Graffiti, paint, oil, grease and crayon Remover.

Supplier name and address:

BK Enterprises

3970 Youngfield Street

Wheat Ridge, CO, U.S.A. 80033

Phone: 303-865-8800 (7:30 AM to 4:30 PM, Monday to Friday, MST)

Emergency Tel.#: CHEM-TEL – North America 1-800- 255-3924 or Worldwide Intl. + 01- 813-248-0585

SECTION 2 — HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Caution! Combustible liquid and vapor. Contact with extreme heat, flame and other ignition sources may cause fire. Harmful if inhaled, swallowed or absorbed through the skin. Causes eye and skin irritation. May cause allergic skin reaction. May cause respiratory tract irritation. Could cause headache, drowsiness or other effects to the central nervous system. Prolonged skin contact may cause dermatitis. Contains material which may cause adverse liver and blood system effects. Not reactive. Release to the environment may cause harm.

POTENTIAL HEALTH EFFECTS

Target organs: Eyes, skin, respiratory system, digestive system, liver, blood system, central nervous system.

Routes of exposure: Skin contact, skin absorption, eye contact, inhalation, ingestion.

Signs and symptoms of short-term (acute) exposure:

Inhalation: Harmful if inhaled. Inhalation may cause irritation to the nose, throat and upper respiratory tract. Inhalation could also cause headache, nausea, vomiting, other central nervous system effects and blood system effects (red blood cell fragility and hemoglobinuria).

Skin: Direct contact with skin may cause moderate to severe irritation. Product could be absorbed if left on the skin and cause headache, nausea, vomiting, other central nervous system effects and blood system effects (red blood cell fragility and hemoglobinuria).

Eyes: Direct contact with eyes may cause severe irritation and possibly eye injury. Vapors are irritating to the eyes.

Ingestion: If ingested, may cause irritation to the mouth, throat and stomach. Symptoms may include vomiting, diarrhea, headache, dizziness, other central nervous system effects and possibly blood system effects (red blood cell fragility and hemoglobinuria). This product may present an aspiration hazard. Aspiration into the lungs following ingestion may cause life-threatening lung injury.

Chronic effects: Repeated or prolonged exposure may result in drying, cracking and defatting of the skin (dermatitis).

Prolonged or repeated inhalation may cause severe toxicity to the blood system, based on animal data. Prolonged or repeated exposure may cause adverse liver and nervous system effects. The Proprietary Cycloalkane is a known skin sensitizer and can cause allergic reaction in susceptible individuals. Symptoms include welts, rash and itching.

Carcinogenic status: See TOXICOLOGICAL INFORMATION, Section 11.

Additional health hazards: May cause allergic skin reaction. For further information, see TOXICOLOGICAL INFORMATION, Section 11.

Potential environmental effects: See ECOLOGICAL INFORMATION (Section 12).

Preparation Date: February 24, 2009

SECTION 3 — COMPOSITION/INFORMATION ON INGREDIENTS

CHEMICAL NAME	CAS #	% w/w
2-Butoxyethanol	111-76-2	10-30%
Alkyl Alcohol Salt	Proprietary	10-30%
Solvent Naphtha (petroleum)	Proprietary	10-30%
Cycloalkane	Proprietary	30-60%

NOTE (1): ALL WHMIS required information is included in appropriate sections based on the ANSI Z400.1-2004 format. 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. This material is classified as hazardous under OSHA regulations (29CFR 1910.1200).

SECTION 4 — FIRST AID MEASURES

Inhalation: If inhaled, immediately remove victim to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Obtain medical attention if adverse effect continues after removal to fresh air.

Skin contact: Immediately remove contaminated clothing and shoes. Wash skin thoroughly with mild soap and running water. Obtain medical attention if irritation persists. Launder clothing before reuse.

Eye contact: Immediately flush eyes with running water for a minimum of 15 minutes. Obtain medical attention immediately if adverse effect continues after flushing.

Ingestion: DO NOT induce vomiting. Never give anything by mouth to an unconscious person. Obtain medical attention immediately. Guard against aspiration into the lungs.

Conditions aggravated by exposure: May aggravate pre-existing skin, eye and respiratory problems.

Recommendations to physicians: Treat symptoms and eliminate overexposure.

SECTION 5 — FIRE FIGHTING MEASURES

Fire hazards/conditions of flammability: **Combustible liquid.** This material may ignite when exposed to extreme heat, direct flame and other sources of ignition. Vapors may be heavier than air and may collect in low-lying areas and confined spaces. Closed containers may rupture if exposed to excess heat or flame due to a build-up of internal pressure. Product may float and may be re-ignited at the water's surface.

Flammability classification (OSHA 29 CFR 1910.1200): **Class IIIA Combustible Liquid. (US DOT FLAMMABLE CLASS – See Section 14!)**

Flash point: 51.7°C / 125°F

Auto-ignition temperature: <287°C / <549°F

Oxidizing properties: None known

Lower flammable limit (% by vol.): Not established.

Upper flammable limit (% by vol.): Not established.

Explosion data:
Product is insensitive to normal mechanical impacts. Product is slightly sensitive to static discharge: vapors may be sensitive to discharge. Avoid static discharge by grounding containers and transfer equipment.

Suitable extinguishing media: Use foam, dry chemical, carbon dioxide or water spray / fog. Do not use water jet.

Special fire-fighting procedures/equipment: Firefighters should wear proper protective equipment and respiratory protection as conditions warrant. Move containers from fire area if it can be done without risk. Water spray may be useful in cooling equipment and containers exposed to heat and flame. Avoid spreading burning liquid with water spray used for cooling purposes.

Hazardous combustion products: Carbon oxides, nitrogen oxides, sulfur oxides, reactive hydrocarbons and other irritating fumes and smoke.

SECTION 6 — ACCIDENTAL RELEASE MEASURES

Personal precautions: Restrict access to area until completion of clean-up. Ensure clean-up is conducted by trained personnel only. All persons dealing with clean-up should wear the appropriate chemically protective equipment. Keep all other personnel upwind and away from the spill/release. Refer to Section 8, EXPOSURE CONTROLS AND PERSONAL PROTECTION, for additional information on acceptable personal protective equipment.

Environmental precautions: Ensure spilled product does not enter drains, sewers or confined spaces. Dike far ahead of large spills with non-combustible, inert absorbent material.

SECTION 6 — ACCIDENTAL RELEASE MEASURES (Continued)

Spill response/Cleanup: Eliminate all sources of ignition. Ventilate area of release. Stop leak if you can do so without risk. Contain and absorb spilled liquid with non-combustible, inert absorbent material (e.g. sand, earth), then place absorbent material into a suitable container for later disposal (see Section 13). Contaminated absorbent material may pose the same hazards as the spilled product. Notify the appropriate authorities as required.

Prohibited materials: None known.

Special spill response procedures: If a spill/release in excess of EPA reportable quantity is made into the environment, immediately notify the national response center in the United States (phone: 1-800-424-8002).

DOT/CERCLA Reportable quantity (RQ): None reported

SECTION 7 — HANDLING AND STORAGE

Safe handling procedures: This material is a combustible, harmful liquid. Wear appropriate protective equipment during handling. Use in a well-ventilated area. Avoid inhalation of vapors. Avoid contact with skin, eyes, and clothing. Wash thoroughly after handling. Keep away from heat, flame and other sources of ignition. Keep away from oxidizing agents. Use caution when opening cap. Keep container tightly closed when not in use. Assume empty containers contain residues, which are hazardous.

General hygiene considerations: Avoid inhalation of vapors and mists. Avoid contact with eyes, skin and clothing. Do not eat, drink or smoke when working. Upon completion of work, wash hands before eating, drinking, smoking or use of toilet facilities. Remove soiled clothing and wash it thoroughly before reuse.

Storage requirements: Store in a cool, dry, well-ventilated area away from sources of heat, ignition and sunlight. Store containers away from incompatible chemicals (see Section 10, Stability and Reactivity). Containers should be separated from oxidizing materials by a minimum distance of 20 ft. or by a barrier of non-combustible material at least 5 ft. high having a fire-resistance rating of at least 0.5 hours. Refer to NFPA 30, *Flammable and Combustible Liquids Code*, for additional information on storage. Storage area should be clearly identified, clear of obstruction and accessible only to trained and authorized personnel. Inspect periodically for damage or leaks. No smoking in the area.

Special packaging materials: Always keep in containers made of the same materials as the supply container.

SECTION 8 — EXPOSURE CONTROLS AND PERSONAL PROTECTION

Ventilation and engineering controls: Use in well-ventilated area. Local mechanical exhaust / extraction ventilation may be required if used indoors on a continuous basis.

Exposure Limits:

CHEMICAL NAME	CAS #	EXPOSURE LIMITS IN AIR							
		ACGIH-TLVs		OSHA-PELs		NIOSH-RELs		NIOSH	OTHER
		TWA mg/m ³	STEL mg/m ³	TWA mg/m ³	STEL mg/m ³	TWA mg/m ³	STEL mg/m ³	IDLH mg/m ³	
2-Butoxyethanol	111-76-2	67	NE	240 (skin) 120 (vacated 1989 PEL)	NE	24 (skin)	NE	700 ppm	DFG MAKs: TWA = 49 (skin) PEAK = 2•MAK 15 min. average value, 1-hr interval, 4 per shift DFG MAK Pregnancy Risk Classification: C
Alkyl Alcohol Salt	Proprietary	NE	NE	NE	NE	NE	NE	NE	NE
Solvent Naphtha (petroleum)	Proprietary	NE	NE	NE	NE	NE	NE	NE	NE
Cycloalkane	Proprietary	DFG MAKs: Danger of Sensitization of the Skin TWA = 110, PEAK = 2•MAK 15 min. average value, 1-hr interval, 4 per shift DFG MAK Pregnancy Risk Classification: C							

NE = Not Established.

Respiratory protection: Respiratory protection is required if airborne concentrations are above recommended TLVs or are not known. If respiratory protection is needed, use only protection authorized in the U.S. Federal OSHA Respiratory Protection Standard (29 CFR 1910.134) or equivalent U.S. State standards, and the Canadian CSA Standard Z94.4-02, *Selection, Care and Use of Respirators*. Oxygen levels below 19.5% are considered IDLH by OSHA. In such atmospheres, in emergency situations or

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when oxygen levels are unknown, use of a full-facepiece pressure/demand SCBA or a full facepiece, supplied air respirator with auxiliary self-contained air supply is required under OSHA's Respiratory Protection Standard (1910.134-1998).

SECTION 8 — EXPOSURE CONTROLS AND PERSONAL PROTECTION (Continued)

Hand protection: It is recommended that protective gloves impervious to the material be worn at all times during use. Use triple gloves for spill response. If necessary, refer to U.S. OSHA 29 CFR 1910.138 and appropriate standards of Canada.

Eye / face protection: Use chemical splash goggles when a potential for eye contact exists. A full face shield should be worn when handling more than 1 gallon of product. If necessary, refer to U.S. OSHA 29 CFR 1910.133, the Canadian CSA Standard Z94.3-02, *Industrial Eye and Face Protection*. An eyewash station and safety shower should be made available in the immediate working area.

Skin protection and other protective equipment: Use body protection appropriate for task. An apron, or other impermeable body protection is suggested. Full-body chemical protective clothing is recommended for emergency response procedures. If necessary, refer to the OSHA Technical Manual (Section VII: Personal Protective Equipment), or appropriate Standards of Canada. If a hazard of injury to the feet exists due to falling objects, rolling objects, where objects may pierce the soles of the feet or where employee's feet may be exposed to electrical hazards, use foot protection, as described in U.S. OSHA 29 CFR 1910.136 and the Canadian CSA Standard Z195-02, *Protective Footwear*. An eyewash station and safety shower should be made available in the immediate working area.

SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES

Physical state, odor and appearance: Colorless liquid with an orange odor.

pH: Not available.

Specific gravity: Not available.

Solubility in water: Insoluble.

Volatiles (% by weight): Not established.

Vapor pressure (PSIG): Not established.

Vapor density (Air = 1): Not established.

Boiling point: Not established.

Evaporation rate (n-Butyl acetate = 1): <1

Freezing point: Not established.

SECTION 10 — REACTIVITY AND STABILITY DATA

Stability and reactivity: Stable under the recommended storage and handling conditions.

Hazardous polymerization: Will not occur. On exposure to air, product may slowly polymerize and may produce peroxides. This process is accelerated by direct sunlight.

Conditions to avoid: Avoid sources of heat, flame, and direct sunlight.

Materials to avoid (incompatibles): Strong oxidizing agents.

Hazardous decomposition products: *Combustion:* Carbon oxides, nitrogen oxides, sulfur oxides, reactive hydrocarbons.

Hydrolysis: None known.

SECTION 11 — TOXICOLOGICAL INFORMATION

Toxicological data: There is no available data for the product itself, only for the ingredients. See below for individual ingredient acute toxicity data for components in 1% concentration or greater. Additional data is available but is not presented in this MSDS. Contact BK Enterprises for more information. See next page for tabulated information.

Ingredients	LC ₅₀ (4hr) inhalation, rat	LD ₅₀ (mg/kg) oral, rat	LD ₅₀ (mg/kg) dermal, rabbit
Cycloalkane	Not established	4400	>5000
Solvent Naphtha (petroleum)	Not established.	>5000	5000
2-Butoxyethanol	450 ppm	530	400
Alkyl Alcohol Salt	Not established.	Not established	Not established.

Carcinogenicity: Components of this product are listed by agencies tracking the carcinogenic potential of chemical compounds, as follows:

Alkyl Alcohol Salt: ACGIH TLV-A4 (Not Classifiable as a Human Carcinogen)

2-Butoxyethanol: ACGIH TLV-A3 (Confirmed Animal Carcinogen with Unknown Relevance to Humans); EPA-C (Possible Human Carcinogen); EPA-CBD (Cannot Be Determined); IARC-3 (Unclassifiable as to Carcinogenicity in Humans); MAK-4 (Substances with carcinogenic potential for which genotoxicity plays no or at most a minor role. No significant contribution to human cancer risk is expected, provided the MAK value is observed.)

Cycloalkane: IARC-3 (Unclassifiable as to Carcinogenicity in Humans); MAK-5 (Substances with carcinogenic and genotoxic effects, the potency of which is considered to be so low that, provided the MAK and BAT values are observed, no significant contribution to human cancer is to be expected.)

Solvent Naphtha (petroleum): IARC-3 (Unclassifiable as to Carcinogenicity in Humans);

None of the remaining ingredients listed are classified by IARC, ACGIH, NTP, MAK, EPA, NIOSH or OSHA as carcinogenic.

Reproductive effects, Teratogenicity, Mutagenicity: None known.

SECTION 11 — TOXICOLOGICAL INFORMATION (Continued)

Sensitization to material: Due to the presence of the cycloalkane this product may cause an allergic skin response (intense itching, swelling and redness) in susceptible individuals; once sensitized contact with very small amount can cause allergic reaction.

Synergistic materials: Not available.

Other important hazards: CNS depression may result from exposure.

SECTION 12 — ECOLOGICAL INFORMATION

Ecotoxicological information: The ecological characteristics of this product have not been fully investigated. The product should not be allowed to enter drains or water courses or be deposited where it can affect ground or surface waters. Do not discharge product unmonitored into the environment.

Chemical fate information: There is no data available on the product itself. The main components of this product are expected to biodegrade by atmospheric, aquatic and ground applications..

SECTION 13 — DISPOSAL CONSIDERATIONS

Handling for disposal: Handle according to recommendations listed in Section 7.

Methods of disposal: Dispose in accordance with all applicable federal, state and local regulations. Contact your local, state or federal environmental agency for specific rules.

U.S. RCRA: For disposal of unused or waste material, check with local, state and federal environmental agencies.

SECTION 14 — TRANSPORTATION INFORMATION

U.S. DOT transportation regulation information: This product is classified as Dangerous Goods under regulations of the U.S. DOT, 49 CFR as follows:

Proper Shipping Name: **Flammable Liquid, n.o.s. (Butoxyethanol)**

Note: *Quart and pint containers are considered ORM-D under 49CFR173.150.*

Hazard Class- Primary: **3 (Flammable)**

Identification No.: **UN 1993**

Packing Group: **II**

Hazard Labels: **Class 3 (Flammable)**

RQ LBS: **None**

Marine Pollutant: **None**

Special Transportation Notes: **This material may be shipped by ground within the United States in limited quantities under the heading of Other Regulated Materials – D (ORM-D). Refer to 49 CFR Part 173.202 for appropriate packaging information when shipping in non-bulk containers.**



Transport Canada transportation regulation information: This product is classified as Dangerous Goods, per regulations of Transport Canada. The use of the above U.S. DOT information from the U.S. 49 CFR regulations is allowed for shipments that originate in the U.S. For shipments via ground vehicle or rail that originate in Canada, the following information is applicable

Proper Shipping Name: **Flammable Liquid, n.o.s. (Butoxyethanol)**

Hazard Class Number and Description: **3 (Flammable)**

UN Identification Number: **UN 1993**

Packing Group: **II**

Hazard Label(S) Required: **Class 3 (Flammable)**

Special Provisions: **16**

Explosive Limit & Limited Quantity Index: **0.5**

ERAP Index: **None**

Passenger Carrying Ship Index: **None**

Passenger Carrying Road or Rail Vehicle Index: **1**

Marine Pollutant:

None

SECTION 15 — REGULATORY INFORMATION

US Federal Information:

TSCA information: All ingredients are listed on the TSCA inventory.

DOT/CERCLA Reportable Quantity (RQ): None reported

SARA TITLE III:

Sec. 302, Extremely Hazardous Substances, 40 CFR 355: No Extremely Hazardous Substances are present.

Sec. 311 and 312, MSDS Requirements, 40 CFR 370 Hazard Classes: Immediate (Acute); Delayed (Chronic), Fire. Under SARA Sections 311 and 312, the EPA has established threshold quantities for the reporting of hazardous chemicals.

The current thresholds are 500 pounds for the threshold planning quantity (TPQ), whichever is lower, for extremely hazardous substances and 10,000 pounds for all other hazardous chemicals.

Sec. 313, Toxic Chemicals Notification, 40 CFR 372: This material may be subject to TSCA notification requirements, since it contains 2-butoxyethanol, a Toxic Chemical constituent.

California Proposition 65: This product does not contain any chemicals known to the State of California to cause cancer or reproductive harm.

State Right-to-Know Laws: This preparation contains components that are on the Right-to-Know Lists of several states. The following table contains the components list and the States that list the component on their Right-to-Know Lists. Any state not listed follows the OSHA list of the US Federal Government.

CHEMICAL NAME	STATES REQUIRING NOTIFICATION
d-Limonene	None
C10-C16 Alcohol Ethoxylate, Sulfated, Sodium Salt	None
Solvent Naphtha (petroleum)	None
2-Butoxyethanol	CA, NJ, PA, MN, MA

CANADIAN FEDERAL REGULATION INFORMATION:

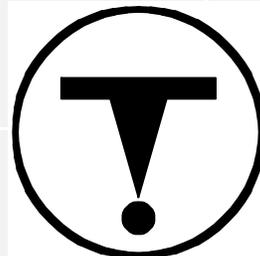
Canadian DSL/NDSL Inventory status: Components of this product are listed on the DSL Inventory.

Canadian Environmental Protection Act (CEPA) Priorities Substances Lists: No component of this product is on the CEPA Priorities Substances Lists.

Canadian WHMIS classification and symbols:

Class B2: Combustible Liquid

Class D2A/D2B: Material Causing Other Toxic Effects (Toxicity-Irritation-Sensitization)



SECTION 16 — OTHER INFORMATION

Legend: ACGIH: American Conference of Governmental Industrial Hygienists
CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act of 1980
NIOSH: National Institute of Occupational Safety and Health HSDB: Hazardous Substances Data Bank
CAS: Chemical Abstract Services CFR: Code of Federal Regulations
DOT: Department of Transportation EPA: Environmental Protection Agency
IARC: International Agency for Research on Cancer MST: Mountain Standard Time
N/Ap: not applicable N/Av: not available
OSHA: Occupational Safety and Health Administration NTP: National Toxicology Program
RCRA: Resource Conservation and Recovery Act PEL: Permissible Exposure Limit
SARA: Superfund Amendments & Reauthorization Act TLV: Threshold Limit Values
TSCA: Toxic Substance Control Act TWA: Time Weighted Average
RTECs: Registry of Toxic Effects of Chemical Substances

Disclaimer:

The information in this MSDS was obtained from sources we believe are reliable. We believe the information was accurate at the time it was compiled. However, no warranty, express or implied, including, without limitation, any warranty of **fitness for a particular purpose or merchantability**, is made as to the accuracy, reliability or completeness of this information, and all such warranties are disclaimed. The conditions of storing, handling and use being beyond the manufacturer's control, it is the sole responsibility of the user to determine all appropriate precautions for the safe handling and use of this product. The information contained herein pertains only to this product and not to its use in combination with any other materials. It is the user's responsibility to comply with all applicable federal, state, and local laws. Manufacturer disclaims all liability for incidental or consequential damages arising out of or in connection with the use of, or inability to use, this product.

Prepared by: BK Enterprises

Telephone No.: 303-865-8800

Preparation date: February 24, 2009

END OF DOCUMENT



MATERIAL SAFETY DATA SHEET

SECTION 1 — PRODUCT AND COMPANY IDENTIFICATION

Product identifier: MARKER GRAFFITI REMOVER

Chemical family: Mixture of petroleum solvent and surfactants.

Product use: Removal of text-based graffiti.

Supplier name and address:

BK Enterprises

3970 Youngfield Street

Wheat Ridge, CO, U.S.A. 80033

Phone: 303-865-8800 (7:30 AM to 4:30 PM, Monday to Friday, MST)

Emergency Tel.#: CHEM-TEL – North America 1-800- 255-3924 or Worldwide Intl. + 01- 813-248-0585

SECTION 2 — HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW



Danger! Flammable liquid and vapor. Contents may ignite when exposed to heat, sparks, flame and other ignition sources. Causes severe skin, eye and digestive tract burns. Harmful if swallowed. Product may enter lungs following ingestion and cause damage. May cause skin and respiratory tract irritation. May cause allergic skin reaction. Could cause headache, drowsiness or other effects to the central nervous system. Contains material which may cause adverse liver and kidney effects. Possible developmental hazard. Contains material that may adversely affect the developing fetus. Flammable liquid; may ignite if exposed to heat, flame or other ignition source. Not reactive. Release to the environment may cause harm.

POTENTIAL HEALTH EFFECTS

Target organs: Eyes, skin, respiratory system, digestive system, liver, kidneys, central nervous system.

Routes of exposure: Skin contact, skin absorption, eye contact, inhalation, ingestion.

Signs and symptoms of short-term (acute) exposure:

Inhalation: Harmful if inhaled. Inhalation may cause irritation to the nose, throat and upper respiratory tract. Symptoms may include headache, nausea, vomiting and other central nervous system effects.

Skin: Direct contact with skin may cause mild to moderate irritation.

Eyes: Direct contact with eyes may cause moderate to severe irritation. Vapors are severely irritating to the eyes.

Ingestion: If ingested, may cause irritation to the mouth, throat and stomach. Symptoms may include headache, dizziness, vomiting, diarrhea and other central nervous system effects. This product is an aspiration hazard. Aspiration into the lungs following ingestion may cause life-threatening lung injury.

Chronic effects: Repeated or prolonged exposure may result in drying, cracking and defatting of the skin (dermatitis). Prolonged or repeated exposure may cause adverse liver and kidney effects.

Carcinogenic status: See TOXICOLOGICAL INFORMATION, Section 11.

Additional health hazards: May cause allergic skin reaction. For further information, see TOXICOLOGICAL INFORMATION, Section 11.

Potential environmental effects: See ECOLOGICAL INFORMATION (Section 12).

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SECTION 3 — COMPOSITION/INFORMATION ON INGREDIENTS

CHEMICAL NAME	CAS #	% w/w
Acetone	67-64-1	5-10%
Surfactant	Proprietary	5-10%
Methyl Isobutyl Ketone	108-10-1	5-10%
Cycloalkane	Proprietary	5-10%
Hydrotreated Heavy Naphtha (petroleum)	64742-48-9	60-100%
Other Non-Hazardous Ingredients		Balance

NOTE (1): ALL WHMIS required information is included in appropriate sections based on the ANSI Z400.1-2004 format. 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. This material is classified as hazardous under OSHA regulations (29CFR 1910.1200).

SECTION 4 — FIRST AID MEASURES

Inhalation: If inhaled, immediately remove victim to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Obtain medical attention if adverse effect continues after removal to fresh air.

Skin contact: Immediately remove contaminated clothing and shoes. Wash skin thoroughly with mild soap and running water. Obtain medical attention if irritation persists. Launder clothing before reuse.

Eye contact: Immediately flush eyes with running water for a minimum of 15 minutes. Obtain medical attention immediately if adverse effect continues after flushing.

Ingestion: DO NOT induce vomiting. Never give anything by mouth to an unconscious person. Obtain medical attention immediately. Guard against aspiration into the lungs.

Conditions aggravated by exposure: May aggravate pre-existing skin, eye and respiratory problems.

Recommendations to physicians: Treat symptoms and eliminate overexposure.

SECTION 5 — FIRE FIGHTING MEASURES

Fire hazards/conditions of flammability: Flammable liquid. This material may ignite when exposed to extreme heat, direct flame and other sources of ignition. Vapors may be heavier than air and may collect in low-lying areas and confined spaces. Closed containers may rupture if exposed to excess heat or flame due to a build-up of internal pressure. Product may float and may re-ignite at the water's surface.

Flammability: US DOT / OSHA WHMIS Class 1B Flammable Liquid.

Flash point: 12.8°C / 55°F

Auto-ignition temperature: <287°C / <549°F

Oxidizing properties: None known

Lower flammable limit (% by vol.): N/Av

Upper flammable limit (% by vol.): N/Av

Explosion data:

Product is insensitive to normal mechanical impacts. Product is potentially sensitive to static discharge: vapors may be sensitive to discharge. Avoid static discharge by grounding containers and transfer equipment.

Suitable extinguishing media: Use foam, dry chemical, carbon dioxide or water spray / fog. Do not use water jet.

Special fire-fighting procedures/equipment: Firefighters should wear proper protective equipment and respiratory protection as conditions warrant. Move containers from fire area if it can be done without risk. Water spray may be useful in cooling equipment and containers exposed to heat and flame. Avoid spreading burning liquid with water spray used for cooling purposes.

Hazardous combustion products: Carbon oxides, nitrogen oxides and other irritating fumes and smoke.

**SECTION 6 — ACCIDENTAL RELEASE MEASURES**

Personal precautions: Restrict access to area until completion of clean-up. Ensure clean-up is conducted by trained personnel only. All persons dealing with clean-up should wear the appropriate chemically protective equipment. Keep all other personnel upwind and away from the spill/release. Refer to Section 8, EXPOSURE CONTROLS AND PERSONAL PROTECTION, for additional information on acceptable personal protective equipment.

Environmental precautions: Ensure spilled product does not enter drains, sewers or confined spaces. Dike far ahead of large spills with non-combustible, inert absorbent material.

Spill response/Cleanup: Eliminate all sources of ignition. Ventilate area of release. Stop leak if you can do so without risk. Use non-sparking tools. Contain and absorb spilled liquid with non-combustible, inert absorbent material (e.g. sand, earth), then place absorbent material into a suitable container for later disposal (see Section 13). Contaminated absorbent material may pose the same hazards as the spilled product. Notify the appropriate authorities as required.

SECTION 6 — ACCIDENTAL RELEASE MEASURES (Continued)

Prohibited materials: None known.

Special spill response procedures: If a spill/release in excess of EPA reportable quantity is made into the environment, immediately notify the national response center in the United States (phone: 1-800-424-8002).

DOT/CERCLA Reportable quantity (RQ): Acetone = 5000 lb (2270 kg); Methyl Isobutyl Ketone = 5000 lb (2270 kg).

SECTION 7 — HANDLING AND STORAGE

Safe handling procedures: This material is a harmful liquid. Wear appropriate protective equipment during handling. Use in a well-ventilated area. Avoid inhalation of vapors. Avoid contact with skin, eyes, and clothing. Wash thoroughly after handling. Keep away from heat and flame. Keep away from acids and other incompatible materials. Use caution when opening cap. Keep container tightly closed when not in use. Assume empty containers contain residues, which are hazardous.

General hygiene considerations: Avoid inhalation of vapors and mists. Avoid contact with eyes, skin and clothing. Do not eat, drink or smoke when working. Upon completion of work, wash hands before eating, drinking, smoking or use of toilet facilities. Remove soiled clothing and wash it thoroughly before reuse.

Storage requirements: Store in a cool, dry, well-ventilated area away from sources of heat, ignition and sunlight. Store containers away from incompatible chemicals (see Section 10, Stability and Reactivity). Containers should be separated from oxidizing materials by a minimum distance of 20 ft. or by a barrier of non-combustible material at least 5 ft. high having a fire-resistance rating of at least 0.5 hours. Refer to NFPA 30, *Flammable and Combustible Liquids Code*, for additional information on storage. Storage area should be clearly identified, clear of obstruction and accessible only to trained and authorized personnel. Inspect periodically for damage or leaks. No smoking in the area.

Special packaging materials: Always keep in containers made of the same materials as the supply container.

SECTION 8 — EXPOSURE CONTROLS AND PERSONAL PROTECTION

Ventilation and engineering controls: Use in well-ventilated area. Local mechanical exhaust / extraction ventilation may be required if used indoors on a continuous basis.

Exposure Limits:

CHEMICAL NAME	CAS #	EXPOSURE LIMITS IN AIR							
		ACGIH-TLVs		OSHA-PELs		NIOSH-RELS		NIOSH	OTHER
		TWA mg/m ³	STEL mg/m ³	TWA mg/m ³	STEL mg/m ³	TWA mg/m ³	STEL mg/m ³	IDLH mg/m ³	
Acetone	67-64-1	1188	1782	2400 1800 (vacated 1989 PEL)	2400 (vacated 1989 PEL)	590	NE	2500 ppm (based on 10% of LEL)	DFG MAKs: TWA = 1200 PEAK = 2•MAK 15 min. average value, 1-hr interval, 4 per shift
Surfactant	Proprietary	NE	NE	NE	NE	NE	NE	NE	NE
Methyl Isobutyl Ketone	108-10-1	205 (50 ppm)	300	410 (100 ppm)	NE	205	300	500 ppm	DFG MAKs: TWA = 83 (skin) PEAK = 2•MAK 15 min. average value, 1-hr interval, 4 per shift DFG MAK Pregnancy Risk Classification: C
Cycloalkane	Proprietary	NE	NE	NE	NE	NE	NE	NE	DFG MAKs: Danger of Sensitization of the Skin TWA = 110; PEAK = 2•MAK 15 min. average value, 1-hr interval, 4 per shift DFG MAK Pregnancy Risk Classification: C
Hydrotreated Heavy Naphtha (petroleum)	64742-48-9	NE	NE	NE	NE	NE	NE	NE	NE

SECTION 8 — EXPOSURE CONTROLS AND PERSONAL PROTECTION

Preparation Date: February 24, 2009

Respiratory protection: Respiratory protection is required if airborne concentrations are above recommended TLVs or are not known. If respiratory protection is needed, use only protection authorized in the U.S. Federal OSHA Respiratory Protection Standard (29 CFR 1910.134) or equivalent U.S. State standards, and the Canadian CSA Standard Z94.4-02, *Selection, Care and Use of Respirators*. Oxygen levels below 19.5% are considered IDLH by OSHA. In such atmospheres, in emergency situations or when oxygen levels are unknown, use of a full-facepiece pressure/demand SCBA or a full facepiece, supplied air respirator with auxiliary self-contained air supply is required under OSHA's Respiratory Protection Standard (1910.134-1998).

Hand protection: It is recommended that protective gloves impervious to the material be worn at all times during use. Use triple gloves for spill response. If necessary, refer to U.S. OSHA 29 CFR 1910.138 and appropriate standards of Canada.

Eye / face protection: Use chemical splash goggles when a potential for eye contact exists. A full face shield should be worn when handling more than 1 gallon of product. If necessary, refer to U.S. OSHA 29 CFR 1910.133, the Canadian CSA Standard Z94.3-02, *Industrial Eye and Face Protection*. An eyewash station and safety shower should be made available in the immediate working area.

SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES

Physical state, odor and appearance: Clear to pale yellow liquid, mild, lemon-like odor.

Specific gravity: <1

Volatiles (% by weight): Not established.

Vapor density (Air = 1): Not established.

Evaporation rate (n-Butyl acetate = 1): Not established.

pH: Not established.

Solubility in water: 100%.

Vapor pressure (PSIG): Not established.

Boiling point: Not established.

Freezing point: Not established.

SECTION 10 — REACTIVITY AND STABILITY DATA

Stability and reactivity: Stable under the recommended storage and handling conditions prescribed.

Hazardous polymerization: Will not occur. On exposure to air, product may slowly polymerize.

Conditions to avoid: Avoid sources of heat, flame, and direct sunlight.

Materials to avoid (incompatibles): Acids, bases, strong oxidizing agents.

Hazardous decomposition products: *Combustion:* Carbon oxides. *Hydrolysis:* None known. In direct sunlight and on exposure to air, product may release Carbon monoxide and possibly peroxides.

SECTION 11 — TOXICOLOGICAL INFORMATION

Toxicological data: There is no available data for the product itself, only for the ingredients. See below for individual ingredient acute toxicity data for components in 1% concentration or greater. Additional data is available but is not presented in this MSDS. Contact BK Enterprises for more information. See next page for tabulated information.

Ingredients	LC ₅₀ (4hr) inhalation, rat	LD ₅₀ (mg/kg) oral, rat	LD ₅₀ (mg/kg) dermal, rabbit
Cycloalkane	Not established	4400	>5000
Acetone	30,000 ppm	5800	>16,000
Methyl Isobutyl Ketone	40,000 mg/m ³ (lowest published)	2080	Not established.
Surfactant	Not established.	Not established	Not established.
Hydrotreated Heavy Naphtha (petroleum)	Not established.	Not established.	Not established.

Carcinogenicity: Components of this product are listed by agencies tracking the carcinogenic potential of chemical compounds, as follows:

Acetone: ACGIH TLV-A4 (Not Classifiable as a Human Carcinogen); EPA-CBD (Cannot Be Determined); EPA-D (Not Classifiable as to Human Carcinogenicity)

Cycloalkane: IARC-3 (Unclassifiable as to Carcinogenicity in Humans); MAK-5 (Substances with carcinogenic and genotoxic effects, the potency of which is considered to be so low that, provided the MAK and BAT values are observed, no significant contribution to human cancer is to be expected.)

Methyl Isobutyl Ketone: EPA-I (Data are Inadequate for an Assessment of Human Carcinogenic Potential)

Hydrotreated Heavy Naphtha (petroleum): IARC-3 (Unclassifiable as to Carcinogenicity in Humans)

None of the remaining ingredients listed are classified by IARC, ACGIH, NTP, MAK, EPA, NIOSH or OSHA as carcinogenic.

Reproductive effects, Teratogenicity, Mutagenicity: None known.

SECTION 12 — ECOLOGICAL INFORMATION

Preparation Date: February 24, 2009

Ecotoxicological information: The ecological characteristics of this product have not been fully investigated. The product should not be allowed to enter drains or water courses or be deposited where it can affect ground or surface waters. Do not discharge product unmonitored into the environment.

Chemical fate information: There is no data available on the product itself. The main components of this product are expected to biodegrade by atmospheric, aquatic and ground applications.

SECTION 13 — DISPOSAL CONSIDERATIONS

Handling for disposal: Handle according to recommendations listed in Section 7.

Methods of disposal: Dispose in accordance with all applicable federal, state and local regulations. Contact your local, state or federal environmental agency for specific rules.

RCRA: For disposal of unused or waste material, check with local, state and federal environmental agencies.

SECTION 14 — TRANSPORTATION INFORMATION

U.S. DOT transportation regulation information: This product is classified as Dangerous Goods under regulations of the U.S. DOT, 49 CFR as follows:

Proper Shipping Name: **Flammable Liquid, n.o.s. (Acetone, Methyl Isobutyl Ketone)**

Note: *Quart and pint containers are considered ORM-D under 49CFR173.150.*

Hazard Class- Primary: **3 (Flammable)**

Identification No.: **UN 1993**

Packing Group: **II**

Hazard Labels: **Class 3 (Flammable)**

RQ LBS: **None**

Marine Pollutant: **None**

Special Transportation Notes: **This material may be shipped by ground within the United States in limited quantities under the heading of Other Regulated Materials – D (ORM-D). Refer to 49 CFR Part 173.202 for appropriate packaging information when shipping in non-bulk containers.**



Transport Canada transportation regulation information: This product is classified as Dangerous Goods, per regulations of Transport Canada. The use of the above U.S. DOT information from the U.S. 49 CFR regulations is allowed for shipments that originate in the U.S. For shipments via ground vehicle or rail that originate in Canada, the following information is applicable

Proper Shipping Name: **Flammable Liquid, n.o.s.. (Acetone, Methyl Isobutyl Ketone)**

Hazard Class Number and Description: **3 (Flammable)**

UN Identification Number: **UN 1993**

Packing Group: **II**

Hazard Label(S) Required: **Class 3 (Flammable)**

Special Provisions: **16**

Explosive Limit & Limited Quantity Index: **0.5**

ERAP Index: **None**

Passenger Carrying Ship Index: **None**

Passenger Carrying Road or Rail Vehicle Index: **1**

Marine Pollutant:

None

SECTION 15 — REGULATORY INFORMATION

US Federal Information:

TSCA information: All ingredients are listed on the TSCA inventory.

DOT/CERCLA Reportable Quantity (RQ):

Acetone = 5000 lb (2270 kg); Methyl isobutyl ketone = 5000 lb (2270 kg).

SARA TITLE III:

Sec. 302, Extremely Hazardous Substances, 40 CFR 355: No Extremely Hazardous Substances are present.

Sec. 311 and 312, MSDS Requirements, 40 CFR 370 Hazard Classes: Immediate (Acute); Delayed (Chronic). Under SARA Sections 311 and 312, the EPA has established threshold quantities for the reporting of hazardous chemicals. The current thresholds are 500 pounds for the threshold planning quantity (TPQ), whichever is lower, for extremely hazardous substances and 10,000 pounds for all other hazardous chemicals.

Sec. 313, Toxic Chemicals Notification, 40 CFR 372: This material may be subject to TSCA notification requirements, since it contains Methyl isobutyl ketone, a Toxic Chemical constituent.

SECTION 15 — REGULATORY INFORMATION (Continued)

California Proposition 65: To the best of our knowledge, this product does not contain any chemicals known to the State of California to cause cancer or reproductive harm.

State Right-to-Know Laws: This preparation contains components that are on the Right-to-Know Lists of several states. The following table contains the components list and the States that list the component on their Right-to-Know Lists. Any state not listed follows the OSHA list of the US Federal Government.

CHEMICAL NAME	STATES REQUIRING NOTIFICATION
Cycloalkane	None
Acetone	CA, NJ, PA, MN, MA
Methyl Isobutyl Ketone	CA, NJ, PA, MN, MA
Surfactant	None
Hydrotreated Heavy Naphtha (petroleum)	NJ, PA

CANADIAN FEDERAL REGULATION INFORMATION:

Canadian DSL/NDSL Inventory status: Components of this product are listed on the DSL Inventory.

Canadian Environmental Protection Act (CEPA) Priorities Substances Lists: No component of this product is on the CEPA Priorities Substances Lists.

Canadian WHMIS classification and symbols:

Class B2: Flammable Liquid

Class D2A, D2B: Material Causing Other Toxic Effects (Toxicity-Irritation)



SECTION 16 — OTHER INFORMATION

- Legend:**
- ACGIH: American Conference of Governmental Industrial Hygienists
 - CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act of 1980
 - NIOSH: National Institute of Occupational Safety and Health
 - CAS: Chemical Abstract Services
 - DOT: Department of Transportation
 - IARC: International Agency for Research on Cancer
 - N/Ap: not applicable
 - OSHA: Occupational Safety and Health Administration
 - RCRA: Resource Conservation and Recovery Act
 - SARA: Superfund Amendments & Reauthorization Act
 - TSCA: Toxic Substance Control Act
 - RTECs: Registry of Toxic Effects of Chemical Substances
 - HSDB: Hazardous Substances Data Bank
 - CFR: Code of Federal Regulations
 - EPA: Environmental Protection Agency
 - MST: Mountain Standard Time
 - N/Av: not available
 - NTP: National Toxicology Program
 - PEL: Permissible Exposure Limit
 - TLV: Threshold Limit Values
 - TWA: Time Weighted Average

Disclaimer:

The information in this MSDS was obtained from sources we believe are reliable. We believe the information was accurate at the time it was compiled. However, no warranty, express or implied, including, without limitation, any warranty of **fitness for a particular purpose or merchantability**, is made as to the accuracy, reliability or completeness of this information, and all such warranties are disclaimed. The conditions of storing, handling and use being beyond the manufacturer's control, it is the sole responsibility of the user to determine all appropriate precautions for the safe handling and use of this product. The information contained herein pertains only to this product and not to its use in combination with any other materials. It is the user's responsibility to comply with all applicable federal, state, and local laws. Manufacturer disclaims all liability for incidental or consequential damages arising out of or in connection with the use of, or inability to use, this product.

Prepared by: BK Enterprises
Telephone No.: 303-865-8800
Preparation date: February 18, 2009

END OF DOCUMENT





MATERIAL SAFETY DATA SHEET

SECTION 1 — PRODUCT AND COMPANY IDENTIFICATION

Product identifier: METAL SAFE GRAFFITI REMOVER

Chemical family: Mixture of amide solvent, surfactants, alcohol and terpenes.

Product use: Specialty Graffiti Remover for Metal Surfaces.

Supplier name and address:

BK Enterprises

3970 Youngfield Street

Wheat Ridge, CO, U.S.A. 80033

Phone: 303-865-8800 (7:30 AM to 4:30 PM, Monday to Friday, MST)

Emergency Tel.#: CHEM-TEL – North America 1-800- 255-3924 or Worldwide Intl. + 01- 813-248-0585

SECTION 2 — HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW



Danger! Flammable liquid and vapor. Contents may ignite when exposed to heat, sparks, flame and other ignition sources. Causes severe skin, eye and digestive tract burns. Harmful if swallowed. Product may enter lungs following ingestion and cause damage. May cause skin and respiratory tract irritation. Could cause headache, drowsiness or other effects to the central nervous system. Contains material which may cause adverse liver and kidney effects. Possible developmental hazard. Contains material that may adversely affect the developing fetus. Flammable liquid; may ignite if exposed to heat, flame or other ignition source. Not reactive. Release to the environment may cause harm.

POTENTIAL HEALTH EFFECTS

Target organs: Eyes, skin, respiratory system, digestive system, liver, central nervous system.

Routes of exposure: Skin contact, skin absorption, eye contact, inhalation, ingestion.

Signs and symptoms of short-term (acute) exposure:

Inhalation: Harmful if inhaled. Inhalation may cause irritation to the nose, throat and upper respiratory tract. Inhalation could also cause fatigue, difficulty breathing, dizziness, headache, drowsiness, nausea, vomiting and other central nervous system effects.

Skin: Direct contact with skin may cause moderate irritation. Product may be absorbed.

Eyes: Direct contact with eyes may cause severe irritation and possibly eye injury. Vapors are irritating to the eyes.

Ingestion: If ingested, may cause irritation to the mouth, throat and stomach. Symptoms may include dizziness, headache, drowsiness, nausea, vomiting and other central nervous system effects. This product may present an aspiration hazard. Aspiration into the lungs following ingestion may cause life-threatening lung injury.

Chronic effects: Repeated or prolonged exposure may result in severe drying, cracking and defatting of the skin (dermatitis). Prolonged or repeated exposure may cause adverse liver and nervous system effects.

Carcinogenic status: See TOXICOLOGICAL INFORMATION, Section 11.

Additional health hazards: May cause allergic skin reaction. Possible birth defect hazard. For further information, see TOXICOLOGICAL INFORMATION, Section 11.

Potential environmental effects: See ECOLOGICAL INFORMATION (Section 12).

Preparation Date: February 16, 2009

SECTION 3 — COMPOSITION/INFORMATION ON INGREDIENTS

CHEMICAL NAME	CAS #	% w/w
Alkyl Alcohol Salt	Proprietary	5-10%
Cycloalkane	Proprietary	5-10%
Ethanol	64-17-5	10-30%
Surfactant	Proprietary	10-30%
n-Methyl-2-Pyrrolidone	872-50-4	30-60%

NOTE (1): ALL WHMIS required information is included in appropriate sections based on the ANSI Z400.1-2004 format. 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. This material is classified as hazardous under OSHA regulations (29CFR 1910.1200).

SECTION 4 — FIRST AID MEASURES

Inhalation: If inhaled, immediately remove victim to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Obtain medical attention if adverse effect continues after removal to fresh air.

Skin contact: Immediately remove contaminated clothing and shoes. Wash skin thoroughly with mild soap and running water. Obtain medical attention if irritation persists. Launder clothing before reuse.

Eye contact: Immediately flush eyes with running water for a minimum of 15 minutes. Obtain medical attention immediately if adverse effect continues after flushing.

Ingestion: DO NOT induce vomiting. Never give anything by mouth to an unconscious person. Obtain medical attention immediately. Guard against aspiration into the lungs.

Conditions aggravated by exposure: May aggravate pre-existing skin, eye and respiratory problems.

Recommendations to physicians: Treat symptoms and eliminate overexposure.

SECTION 5 — FIRE FIGHTING MEASURES

Fire hazards/conditions of flammability: Flammable liquid. This material will ignite or explode when exposed to heat, sparks, flames, or other sources of ignition (e.g. static electricity, pilot lights, or mechanical/electrical equipment). Vapors are heavier than air and will collect in low-lying areas and confined spaces. Vapors can travel to a source of ignition and flash back causing an explosion and fire. Closed containers may rupture if exposed to excess heat or flame due to a build-up of internal pressure. Liquid will float and can be re-ignited at water's surface. Contact with some metals may cause release of flammable hydrogen gas.

Flammability classification (OSHA 29 CFR 1910.1200): Class IB Flammable Liquid.

Flash point: 12.5°C / 55°F

Auto-ignition temperature: Not determined for product: For main component, Ethanol: 363°C / 685°F

Oxidizing properties: None known

Lower flammable limit (% by vol.): 3.3% (ethanol), 0.9% hydrocarbons

Upper flammable limit (% by vol.): 19.0% (ethanol), 6.0% (hydrocarbons)

Explosion data:

Product is insensitive to normal mechanical impacts. Product is potentially sensitive to static discharge: vapors may be sensitive to discharge. Avoid static discharge by grounding containers and transfer equipment.

Suitable extinguishing media: Foam, dry chemical or carbon dioxide. **Using water may be ineffective and spread fire.**

Special fire-fighting procedures/equipment: Firefighters should wear proper chemically protective equipment and respiratory protection as conditions warrant. Move containers from fire area if it can be done without risk. Water spray or fog may be useful in minimizing or dispersing vapors, and cooling equipment and containers exposed to heat and flame. Avoid spreading burning liquid with water spray used for cooling purposes; water fog may be preferable for this purpose.

Hazardous combustion products: Carbon oxides and other irritating fumes and smoke.



SECTION 6 — ACCIDENTAL RELEASE MEASURES

Personal precautions: Restrict access to area until completion of clean-up. Ensure clean-up is conducted by trained personnel only. All persons dealing with clean-up should wear the appropriate chemically protective equipment. Keep all other personnel upwind and away from the spill/release. Refer to Section 8, EXPOSURE CONTROLS AND PERSONAL PROTECTION, for additional information on acceptable personal protective equipment.

Environmental precautions: Ensure spilled product does not enter drains, sewers or confined spaces. Dike far ahead of large spills with non-combustible, inert absorbent material.

Spill response/Cleanup: Eliminate all sources of ignition. Ventilate area of release. Stop leak if you can do so without risk. Use non-sparking tools. Contain and absorb spilled liquid with non-combustible, inert absorbent material (e.g. sand, earth), then place absorbent material into a suitable container for later disposal (see Section 13). Contaminated absorbent material may pose the same hazards as the spilled product. Notify the appropriate authorities as required.

Prohibited materials: None known.

Special spill response procedures: If a spill/release in excess of EPA reportable quantity is made into the environment, immediately notify the national response center in the United States (phone: 1-800-424-8002).

DOT/CERCLA Reportable quantity (RQ): Surfactant (RQ 1000 lbs.)

SECTION 7 — HANDLING AND STORAGE

Safe handling procedures: This material is a harmful and flammable liquid. Wear appropriate protective equipment during handling. Use in a well-ventilated area. Avoid inhalation of vapors. Avoid contact with skin, eyes, and clothing. Wash thoroughly after handling. Keep away from heat and flame. Keep away from acids and other incompatible materials. Use caution when opening cap. Keep container tightly closed when not in use. Assume empty containers contain residues, which are hazardous.

General hygiene considerations: Avoid inhalation of vapors and mists. Avoid contact with eyes, skin and clothing. Do not eat, drink or smoke when working. Upon completion of work, wash hands before eating, drinking, smoking or use of toilet facilities. Remove soiled clothing and wash it thoroughly before reuse.

Storage requirements: Store in a cool, dry, well-ventilated area away from sources of heat, ignition and sunlight. Keep away from incompatibles and flammable materials. Storage area should be clearly identified, clear of obstruction and accessible only to trained and authorized personnel. Inspect periodically for damage or leaks. Containers should be separated from oxidizing materials by a minimum distance of 20 ft. or by a barrier of non-combustible material at least 5 ft. high having a fire-resistance rating of at least 0.5 hours. Refer to NFPA 30, *Flammable and Combustible Liquids Code*, for additional information on storage. Storage area should be clearly identified, clear of obstruction and accessible only to trained and authorized personnel. Inspect periodically for damage or leaks. No smoking in the area.

Special packaging materials: Always keep in containers made of the same materials as the supply container.

SECTION 8 — EXPOSURE CONTROLS AND PERSONAL PROTECTION

Ventilation and engineering controls: Use in well-ventilated area. Local mechanical exhaust / extraction ventilation may be required if used indoors on a continuous basis.

Exposure Limits:

CHEMICAL NAME	CAS #	EXPOSURE LIMITS IN AIR (NE = Not Established.)							
		ACGIH-TLVs		OSHA-PELs		NIOSH-RELs		NIOSH	OTHER
		TWA mg/m ³	STEL mg/m ³	TWA mg/m ³	STEL mg/m ³	TWA mg/m ³	STEL mg/m ³	IDLH mg/m ³	mg/m ³
Surfactant	Proprietary	NE	NE	NE	NE	NE	NE	NE	NE
Alkyl Alcohol Salt	Proprietary	NE	NE	NE	NE	NE	NE	NE	NE
n-Methyl-2-Pyrrolidone	872-50-4	DFG MAKs: TWA = 82 (vapor) skin, PEAK = 2•MAK 15 min. average value, 1-hr interval, 4 per shift, DFG MAK Pregnancy Risk Classification: C, AIHA WEELS: TWA = 10 ppm (skin)							
Cycloalkane	Proprietary	DFG MAKs: Danger of Sensitization of the Skin, TWA = 110 ppm, PEAK = 2•MAK 15 min. average value, 1-hr interval, 4 per shift, DFG MAK Pregnancy Risk Classification: C							
Ethanol	64-17-5	ACIGH TLV = 1800ppm, NIOSH REL=1900 ppm, OSHA PEL=1900 ppm, NIOSH IDLH = 3000 ppm based on 10% of LEL . DFG data – 900 ppm MAK, PEAK = 1800 ppm 15 min. average value, 1-hr interval, 4 per shift, DFG MAK Pregnancy Risk Classification: C DFG MAK Germ Cell Mutagen Category: 5							

Preparation Date: February 16, 2009

SECTION 8 — EXPOSURE CONTROLS AND PERSONAL PROTECTION (Continued)

Respiratory protection: Respiratory protection is required if airborne concentrations are above recommended TLVs or are not known. If respiratory protection is needed, use only protection authorized in the U.S. Federal OSHA Respiratory Protection Standard (29 CFR 1910.134) or equivalent U.S. State standards, and the Canadian CSA Standard Z94.4-02, *Selection, Care and Use of Respirators*. Oxygen levels below 19.5% are considered IDLH by OSHA. In such atmospheres, in emergency situations or when oxygen levels are unknown, use of a full-facepiece pressure/demand SCBA or a full facepiece, supplied air respirator with auxiliary self-contained air supply is required under OSHA's Respiratory Protection Standard (1910.134-1998).

Hand protection: It is recommended that protective gloves impervious to the material be worn at all times during use. Use triple gloves for spill response. If necessary, refer to U.S. OSHA 29 CFR 1910.138 and appropriate standards of Canada.

Eye / face protection: Use chemical splash goggles when a potential for eye contact exists. A full face shield should be worn when handling more than 1 gallon of product. If necessary, refer to U.S. OSHA 29 CFR 1910.133, the Canadian CSA Standard Z94.3-02, *Industrial Eye and Face Protection*. An eyewash station and safety shower should be made available in the immediate working area.

Skin protection and other protective equipment: Use body protection appropriate for task. An apron, or other impermeable body protection is suggested. Full-body chemical protective clothing is recommended for emergency response procedures. If necessary, refer to the OSHA Technical Manual (Section VII: Personal Protective Equipment), or appropriate Standards of Canada. If a hazard of injury to the feet exists due to falling objects, rolling objects, where objects may pierce the soles of the feet or where employee's feet may be exposed to electrical hazards, use foot protection, as described in U.S. OSHA 29 CFR 1910.136 and the Canadian CSA Standard Z195-02, *Protective Footwear*. An eyewash station and safety shower should be made available in the immediate working area.

SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES

Physical state, odor and appearance: Clear to pale yellow liquid, mild, lemon-like odor.

Specific gravity: Not established.

Volatiles (% by weight): Not established.

Vapor density (Air = 1): Not established.

Freezing point: Not established.

Evaporation rate (n-Butyl acetate = 1): Not established.

Solubility in water: Miscible.

Vapor pressure (PSIG): Not established.

Boiling point: Not established.

pH: Not established.

Flash point: 15.5°C / 60°F

SECTION 10 — REACTIVITY AND STABILITY DATA

Stability and reactivity: Stable under the recommended storage and handling conditions prescribed.

Hazardous polymerization: Will not occur.

Conditions to avoid: Avoid sources of heat, flame, and direct sunlight.

Materials to avoid (incompatibles): Acids, bases, strong oxidizing agents.

Hazardous decomposition products: *Combustion:* Carbon oxides, nitrogen oxides, sulfur oxides. *Hydrolysis:* None known. On exposure to air, product may slowly polymerize. This process is accelerated by direct sunlight.

SECTION 11 — TOXICOLOGICAL INFORMATION

Toxicological data: There is no available data for the product itself, only for the ingredients. See below for individual ingredient acute toxicity data for components in 1% concentration or greater. Additional data is available but is not presented in this MSDS. Contact BK Enterprises for more information. See next page for tabulated information.

Ingredients	LC ₅₀ (4hr) inhalation, rat	LD ₅₀ (mg/kg) oral, rat	LD ₅₀ (mg/kg) dermal, rabbit
Cycloalkane	Not established	4400	>5000
n-Methyl-2-Pyrrolidone	Not established.	3914	8000
Surfactant	Not established.	438	Not established.
Alkyl Alcohol Salt	Not established.	Not established	Not established.
Ethanol	20,000 ppm / 10 hrs.	7060	Not available.

SECTION 11 — TOXICOLOGICAL INFORMATION (Continued)

Carcinogenicity: Components of this product are listed by agencies tracking the carcinogenic potential of chemical compounds, as follows:

Alkyl Alcohol Salt: ACGIH TLV-A4 (Not Classifiable as a Human Carcinogen)

Cycloalkane: IARC-3 (Unclassifiable as to Carcinogenicity in Humans); MAK-5 (Substances with carcinogenic and genotoxic effects, the potency of which is considered to be so low that, provided the MAK and BAT values are observed, no significant contribution to human cancer is to be expected.)

Ethanol: ACGIH TLV-A4 (Not Classifiable as a Human Carcinogen); MAK-5 (Substances with carcinogenic and genotoxic effects, the potency of which is considered to be so low that, provided the MAK and BAT values are observed, no significant contribution to human cancer is to be expected.)

None of the remaining ingredients listed are classified by IARC, ACGIH, NTP, MAK, EPA, NIOSH or OSHA as carcinogenic.

Reproductive effects, Teratogenicity, Mutagenicity: This product contains n-Methyl-2-Pyrrolidone. This material may cause embryotoxic and teratogenic effects, based on animal data. These effects were noted following doses which were administered by injection (intraperitoneal), or following doses which were maternally toxic and were administered dermally. The C10-C16 Alkyl (Alcohol) Ethoxylate Sulfuric Acid Sodium Salt component may be a potential developmental hazard by ingestion. It is known to cause mutations to germ cells and somatic cells in animals. In addition, this material causes embryotoxicity, fetotoxicity and teratogenicity in animals, in the presence of maternal toxicity.

Reproductive effects, Teratogenicity, Mutagenicity (continued): This product contains Ethanol, which is a known human reproductive toxin when ingested as alcoholic beverages. No reproductive effects have been reported following Ethanol exposure in the workplace. It is known to cause mutations to germ cells and somatic cells in animals. In addition, this material causes embryotoxicity, fetotoxicity and teratogenicity in animals, in the presence of maternal toxicity.

Sensitization to material: Due to the presence of Cycloalkane this product may cause an allergic skin response (intense itching, swelling and redness) in susceptible individuals; once sensitized contact with very small amount can cause allergic reaction.

Synergistic materials: Not available.

Other important hazards: CNS depression may result from exposure.

SECTION 12 — ECOLOGICAL INFORMATION

Ecotoxicological information: The ecological characteristics of this product have not been fully investigated. The product should not be allowed to enter drains or water courses or be deposited where it can affect ground or surface waters. Do not discharge product unmonitored into the environment.

Chemical fate information: There is no data available on the product itself. The main components of this product are expected to biodegrade by atmospheric, aquatic and ground applications.

SECTION 13 — DISPOSAL CONSIDERATIONS

Handling for disposal: Handle according to recommendations listed in Section 7.

Methods of disposal: Dispose in accordance with all applicable federal, state and local regulations. Contact your local, state or federal environmental agency for specific rules.

RCRA: For disposal of unused or waste material, check with local, state and federal environmental agencies.

SECTION 14 — TRANSPORTATION INFORMATION

U.S. DOT transportation regulation information: This product is classified as Dangerous Goods under regulations of the U.S. DOT, 49 CFR as follows:

Proper Shipping Name: Flammable Liquid, n.o.s. (Ethanol)

Note: *Quart and pint containers are considered ORM-D under 49CFR173.150.*

Hazard Class- Primary: **3 (Flammable)**

Identification No.: **UN 1993**

Packing Group: **II**

Hazard Labels: **Class 3 (Flammable)**

RQ LBS: **None**

Marine Pollutant: **None**

Special Transportation Notes: **This material may be shipped by ground within the United States in limited quantities under the heading of Other Regulated Materials – D (ORM-D). Refer to 49 CFR Part 173.202 for appropriate packaging information when shipping in non-bulk containers.**



Preparation Date: February 16, 2009

SECTION 14 — TRANSPORTATION INFORMATION (Continued)

Transport Canada transportation regulation information: This product is classified as Dangerous Goods, per regulations of Transport Canada. The use of the above U.S. DOT information from the U.S. 49 CFR regulations is allowed for shipments that originate in the U.S. For shipments via ground vehicle or rail that originate in Canada, the following information is applicable

Proper Shipping Name: **Flammable Liquid, n.o.s. (Ethanol)**

Hazard Class Number and Description: **3 (Flammable)**

UN Identification Number: **UN 1993**

Packing Group: **II**

Hazard Label(S) Required: **Class 3 (Flammable)**

Special Provisions: **16**

Explosive Limit & Limited Quantity Index: **0.5**

ERAP Index: **None**

Passenger Carrying Ship Index: **None**

Passenger Carrying Road or Rail Vehicle Index: **1**

Marine Pollutant: **None**

SECTION 15 — REGULATORY INFORMATION**U.S. FEDERAL REGULATION INFORMATION:**

TSCA information: All ingredients are listed on the TSCA inventory.

DOT/CERCLA Reportable Quantity (RQ): Surfactant = 1000 lb (45.4 kg)

SARA TITLE III:

Sec. 302, Extremely Hazardous Substances, 40 CFR 355: No Extremely Hazardous Substances are present.

Sec. 311 and 312, MSDS Requirements, 40 CFR 370 Hazard Classes: Immediate (Acute); Delayed (Chronic). Under SARA Sections 311 and 312, the EPA has established threshold quantities for the reporting of hazardous chemicals. The current thresholds are 500 pounds for the threshold planning quantity (TPQ), whichever is lower, for extremely hazardous substances and 10,000 pounds for all other hazardous chemicals.

Sec. 313, Toxic Chemicals Notification, 40 CFR 372: This material may be subject to TSCA notification requirements, since it contains n-Methyl-2-pyrrolidone, a Toxic Chemical constituent.

California Proposition 65: The n-Methyl-2-pyrrolidone component (Cyclic Amide) is listed on Proposition 65 as a chemical that can cause developmental harm.

State Right-to-Know Laws: This preparation contains components that are on the Right-to-Know Lists of several states. The following table contains the components list and the States that list the component on their Right-to-Know Lists. Any state not listed follows the OSHA list of the US Federal Government.

CHEMICAL NAME	STATES REQUIRING NOTIFICATION
Cycloalkane	None
Alkyl Alcohol Salt	None
Surfactant	None
n-Methyl-2-Pyrrolidone*	PA, MN, MA
Ethanol	CA, NJ, PA, MN, MA

* - n-Methyl-2-Pyrrolidone is listed separately on the California Proposition 65 List.

SECTION 15 — REGULATORY INFORMATION (Continued)

CANADIAN FEDERAL REGULATION INFORMATION:

Canadian DSL/NDSL Inventory status: Components of this product are listed on the DSL Inventory.

Canadian Environmental Protection Act (CEPA) Priorities Substances Lists: No component of this product is on the CEPA Priorities Substances Lists.

Canadian WHMIS classification and symbols:

Class B2: Flammable Liquid

Class D2A, D2B: Material Causing Other Toxic Effects (Toxicity-Irritation)



SECTION 16 — OTHER INFORMATION

Legend: ACGIH: American Conference of Governmental Industrial Hygienists
CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act of 1980
NIOSH: National Institute of Occupational Safety and Health
CAS: Chemical Abstract Services
DOT: Department of Transportation
IARC: International Agency for Research on Cancer
N/Ap: not applicable
OSHA: Occupational Safety and Health Administration
RCRA: Resource Conservation and Recovery Act
SARA: Superfund Amendments & Reauthorization Act
TSCA: Toxic Substance Control Act
RTECs: Registry of Toxic Effects of Chemical Substances
HSDB: Hazardous Substances Data Bank
CFR: Code of Federal Regulations
EPA: Environmental Protection Agency
MST: Mountain Standard Time
N/Av: not available
NTP: National Toxicology Program
PEL: Permissible Exposure Limit
TLV: Threshold Limit Values
TWA: Time Weighted Average

Disclaimer:

The information in this MSDS was obtained from sources we believe are reliable. We believe the information was accurate at the time it was compiled. However, no warranty, express or implied, including, without limitation, any warranty of **fitness for a particular purpose or merchantability**, is made as to the accuracy, reliability or completeness of this information, and all such warranties are disclaimed. The conditions of storing, handling and use being beyond the manufacturer's control, it is the sole responsibility of the user to determine all appropriate precautions for the safe handling and use of this product. The information contained herein pertains only to this product and not to its use in combination with any other materials. It is the user's responsibility to comply with all applicable federal, state, and local laws. Manufacturer disclaims all liability for incidental or consequential damages arising out of or in connection with the use of, or inability to use, this product.

Prepared by: BK Enterprises
Telephone No.: 303-865-8800
Preparation date: February 16, 2009

END OF DOCUMENT



MATERIAL SAFETY DATA SHEET

SECTION 1 — PRODUCT AND COMPANY IDENTIFICATION

Product identifier: SIGN SAFE GRAFFITI REMOVER

Chemical family: Mixture of amide solvent, surfactants, alcohol and glycol.

Product use: Specialty Graffiti Remover for Signage

Supplier name and address:

BK Enterprises

3970 Youngfield Street

Wheat Ridge, CO, U.S.A. 80033

Phone: 303-865-8800 (7:30 AM to 4:30 PM, Monday to Friday, MST)

Emergency Tel.#: CHEM-TEL – North America 1-800- 255-3924 or Worldwide Intl. + 01- 813-248-0585

SECTION 2 — HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW



Danger! Flammable liquid and vapor. Contents may ignite when exposed to heat, sparks, flame and other ignition sources. Causes severe skin, eye and digestive tract burns. Harmful if swallowed. Product may enter lungs following ingestion and cause damage. May cause skin and respiratory tract irritation. May cause allergic skin reaction. Could cause headache, drowsiness or other effects to the central nervous system. Contains material which may cause adverse liver and kidney effects. Possible developmental hazard. Contains material that may adversely affect the developing fetus. Flammable liquid; may ignite if exposed to heat, flame or other ignition source. Not reactive. Release to the environment may cause harm.

POTENTIAL HEALTH EFFECTS

Target organs: Eyes, skin, respiratory system, digestive system, liver, blood system, central nervous system.

Routes of exposure: Skin contact, skin absorption, eye contact, inhalation, ingestion.

Signs and symptoms of short-term (acute) exposure:

Inhalation: Harmful if inhaled. Inhalation may cause irritation to the nose, throat and upper respiratory tract. Inhalation could also cause fatigue, difficulty breathing, headache, nausea, vomiting, other central nervous system effects and blood system effects (red blood cell fragility and hemoglobinuria).

Skin: Direct contact with skin may cause moderate to severe irritation. Product could be absorbed if left on the skin and cause headache, nausea, vomiting, other central nervous system effects and blood system effects (red blood cell fragility and hemoglobinuria).

Eyes: Direct contact with eyes may cause severe irritation and possibly eye injury. Vapors are irritating to the eyes.

Ingestion: If ingested, may cause irritation to the mouth, throat and stomach. Symptoms may include pain, sore throat, vomiting, diarrhea, vomiting, other central nervous system effects and possibly blood system effects (red blood cell fragility and hemoglobinuria). This product may present an aspiration hazard. Aspiration into the lungs following ingestion may cause life-threatening lung injury.

Chronic effects: Repeated or prolonged exposure may result in severe drying, cracking and defatting of the skin (dermatitis).

Prolonged or repeated inhalation may cause severe toxicity to the blood system, based on animal data. Prolonged or repeated exposure may cause adverse liver and nervous system effects.

Carcinogenic status: See TOXICOLOGICAL INFORMATION, Section 11.

Additional health hazards: May cause allergic skin reaction. Possible birth defect hazard. For further information, see TOXICOLOGICAL INFORMATION, Section 11.

Potential environmental effects: See ECOLOGICAL INFORMATION (Section 12).

SECTION 3 — COMPOSITION/INFORMATION ON INGREDIENTS

CHEMICAL NAME	CAS #	% w/w
Cycloalkane	5989-27-5	5-10%
Surfactant	8051-30-7	10-30%
2-Butoxyethanol	111-76-2	10-30%
n-Methyl-2-Pyrrolidone	872-50-4	10-30%
Ethanol	64-17-5	30-60%

NOTE (1): ALL WHMIS required information is included in appropriate sections based on the ANSI Z400.1-2004 format. 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. This material is classified as hazardous under OSHA regulations (29CFR 1910.1200).

SECTION 4 — FIRST AID MEASURES

Inhalation: If inhaled, immediately remove victim to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Obtain medical attention if adverse effect continues after removal to fresh air.

Skin contact: Immediately remove contaminated clothing and shoes. Wash skin thoroughly with mild soap and running water. Obtain medical attention if irritation persists. Launder clothing before reuse.

Eye contact: Immediately flush eyes with running water for a minimum of 15 minutes. Obtain medical attention immediately if adverse effect continues after flushing.

Ingestion: DO NOT induce vomiting. Never give anything by mouth to an unconscious person. Obtain medical attention immediately. Guard against aspiration into the lungs.

Conditions aggravated by exposure: May aggravate pre-existing skin, eye and respiratory problems.

Recommendations to physicians: Treat symptoms and eliminate overexposure.

SECTION 5 — FIRE FIGHTING MEASURES

Fire hazards/conditions of flammability: Flammable liquid. This material may ignite when exposed to extreme heat, direct flame and other sources of ignition. Vapors may be heavier than air and may collect in low-lying areas and confined spaces. Closed containers may rupture if exposed to excess heat or flame due to a build-up of internal pressure. Product may float and may re-ignite at the water's surface.

Flammability : US DOT / OSHA WHMIS Class 1B Flammable Liquid.

Flash point: 13.9°C / 57°F

Auto-ignition temperature: 287°C / 549°F

Oxidizing properties: None known

Lower flammable limit (% by vol.): N/Av

Upper flammable limit (% by vol.): N/Av

Explosion data:

Product is insensitive to normal mechanical impacts. Product is potentially sensitive to static discharge: vapors may be sensitive to discharge. Avoid static discharge by grounding containers and transfer equipment.

Suitable extinguishing media: Use foam, dry chemical, carbon dioxide or water spray / fog. Do not use water jet.

Special fire-fighting procedures/equipment: Firefighters should wear proper protective equipment and respiratory protection as conditions warrant. Move containers from fire area if it can be done without risk. Water spray may be useful in cooling equipment and containers exposed to heat and flame. Avoid spreading burning liquid with water spray used for cooling purposes.

Hazardous combustion products: Carbon oxides, nitrogen oxides and other irritating fumes and smoke.

**SECTION 6 — ACCIDENTAL RELEASE MEASURES**

Personal precautions: Restrict access to area until completion of clean-up. Ensure clean-up is conducted by trained personnel only. All persons dealing with clean-up should wear the appropriate chemically protective equipment. Keep all other personnel upwind and away from the spill/release. Refer to Section 8, EXPOSURE CONTROLS AND PERSONAL PROTECTION, for additional information on acceptable personal protective equipment.

Environmental precautions: Ensure spilled product does not enter drains, sewers or confined spaces. Dike far ahead of large spills with non-combustible, inert absorbent material.

SECTION 6 — ACCIDENTAL RELEASE MEASURES(Continued)

Spill response/Cleanup: Eliminate all sources of ignition. Ventilate area of release. Stop leak if you can do so without risk. Use non-sparking tools. Contain and absorb spilled liquid with non-combustible, inert absorbent material (e.g. sand, earth), then place absorbent material into a suitable container for later disposal (see Section 13). Contaminated absorbent material may pose the same hazards as the spilled product. Notify the appropriate authorities as required.

Prohibited materials: None known.

Special spill response procedures: If a spill/release in excess of EPA reportable quantity is made into the environment, immediately notify the national response center in the United States (phone: 1-800-424-8002).

DOT/CERCLA Reportable quantity (RQ): Sodium dodecylbenzenesulfonate (RQ 1000 lbs.)

SECTION 7 — HANDLING AND STORAGE

Safe handling procedures: This material is a harmful and flammable liquid. Wear appropriate protective equipment during handling. Use in a well-ventilated area. Avoid inhalation of vapors. Avoid contact with skin, eyes, and clothing. Wash thoroughly after handling. Keep away from heat and flame. Keep away from acids and other incompatible materials. Use caution when opening cap. Keep container tightly closed when not in use. Assume empty containers contain residues, which are hazardous.

General hygiene considerations: Avoid inhalation of vapors and mists. Avoid contact with eyes, skin and clothing. Do not eat, drink or smoke when working. Upon completion of work, wash hands before eating, drinking, smoking or use of toilet facilities. Remove soiled clothing and wash it thoroughly before reuse.

Storage requirements: Store in a cool, dry, well-ventilated area away from sources of heat, ignition and sunlight. Keep away from incompatibles and flammable materials. Storage area should be clearly identified, clear of obstruction and accessible only to trained and authorized personnel. Inspect periodically for damage or leaks. Containers should be separated from oxidizing materials by a minimum distance of 20 ft. or by a barrier of non-combustible material at least 5 ft. high having a fire-resistance rating of at least 0.5 hours. Refer to NFPA 30, *Flammable and Combustible Liquids Code*, for additional information on storage. Storage area should be clearly identified, clear of obstruction and accessible only to trained and authorized personnel. Inspect periodically for damage or leaks. No smoking in the area.

Special packaging materials: Always keep in containers made of the same materials as the supply container.

SECTION 8 — EXPOSURE CONTROLS AND PERSONAL PROTECTION

Ventilation and engineering controls: Use in well-ventilated area. Local mechanical exhaust / extraction ventilation may be required if used indoors on a continuous basis.

Exposure Limits:

CHEMICAL NAME	CAS #	EXPOSURE LIMITS IN AIR (NE = Not Established.)							
		ACGIH-TLVs		OSHA-PELs		NIOSH-RELS		NIOSH	OTHER
		TWA mg/m ³	STEL mg/m ³	TWA mg/m ³	STEL mg/m ³	TWA mg/m ³	STEL mg/m ³	IDLH mg/m ³	mg/m ³
Surfactant	8051-30-7	NE	NE	NE	NE	NE	NE	NE	NE
2-Butoxyethanol	111-76-2	ACGIH = 67 mg/m ³ TWA, OSHA = 240 mg/m ³ PEL (skin), 120 240 mg/m ³ PEL (Vacated 1989), NIOSH = 24 mg/m ³ PEL (skin), 700ppm IDLH DFG MAKs: TWA = 49 (skin), PEAK = 2•MAK 15 min. average value, 1-hr interval, 4 per shift DFG MAK Pregnancy Risk Classification: C							
n-Methyl-2-Pyrrolidone	872-50-4	DFG MAKs: TWA = 82 (vapor) skin, PEAK = 2•MAK 15 min. average value, 1-hr interval, 4 per shift, DFG MAK Pregnancy Risk Classification: C, AIHA WEELS: TWA = 10 ppm (skin)							
Cycloalkane	64742-88-7	DFG MAKs: Danger of Sensitization of the Skin, TWA = 110 ppm, PEAK = 2•MAK 15 min. average value, 1-hr interval, 4 per shift, DFG MAK Pregnancy Risk Classification: C							
Ethanol	64-17-5	ACI GH TLV = 1800ppm, NIOSH REL=1900 ppm, OSHA PEL=1900 ppm, NIOSH IDLH = 3000 ppm based on 10% of LEL . DFG data – 900 ppm MAK, PEAK = 1800 ppm 15 min. average value, 1-hr interval, 4 per shift, DFG MAK Pregnancy Risk Classification: C DFG MAK Germ Cell Mutagen Category: 5							

SECTION 8 — EXPOSURE CONTROLS AND PERSONAL PROTECTION (Continued)

Respiratory protection: Respiratory protection is required if airborne concentrations are above recommended TLVs or are not known. If respiratory protection is needed, use only protection authorized in the U.S. Federal OSHA Respiratory Protection Standard (29 CFR 1910.134) or equivalent U.S. State standards, and the Canadian CSA Standard Z94.4-02, *Selection, Care and Use of Respirators*. Oxygen levels below 19.5% are considered IDLH by OSHA. In such atmospheres, in emergency situations or when oxygen levels are unknown, use of a full-facepiece pressure/demand SCBA or a full facepiece, supplied air respirator with auxiliary self-contained air supply is required under OSHA's Respiratory Protection Standard (1910.134-1998).

Hand protection: It is recommended that protective gloves impervious to the material be worn at all times during use. Use triple gloves for spill response. If necessary, refer to U.S. OSHA 29 CFR 1910.138 and appropriate standards of Canada.

Eye / face protection: Use chemical splash goggles when a potential for eye contact exists. A full face shield should be worn when handling more than 1 gallon of product. If necessary, refer to U.S. OSHA 29 CFR 1910.133, the Canadian CSA Standard Z94.3-02, *Industrial Eye and Face Protection*. An eyewash station and safety shower should be made available in the immediate working area.

Skin protection and other protective equipment: Use body protection appropriate for task. An apron, or other impermeable body protection is suggested. Full-body chemical protective clothing is recommended for emergency response procedures. If necessary, refer to the OSHA Technical Manual (Section VII: Personal Protective Equipment), or appropriate Standards of Canada. If a hazard of injury to the feet exists due to falling objects, rolling objects, where objects may pierce the soles of the feet or where employee's feet may be exposed to electrical hazards, use foot protection, as described in U.S. OSHA 29 CFR 1910.136 and the Canadian CSA Standard Z195-02, *Protective Footwear*. An eyewash station and safety shower should be made available in the immediate working area.

SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES

Physical state, odor and appearance: Clear to pale yellow liquid, mild, lemon-like odor.

Specific gravity: 1.01

Volatiles (% by weight): Not established.

Vapor density (Air = 1): Not established.

Evaporation rate (n-Butyl acetate = 1): Not established.

pH: Not established.

Solubility in water: Dispersible.

Vapor pressure (PSIG): Not established.

Boiling point: >329°F / 165°C

Freezing point: N/Av.

Flash Point: 57°F (13.9°C)

SECTION 10 — REACTIVITY AND STABILITY DATA

Stability and reactivity: Stable under the recommended storage and handling conditions prescribed.

Hazardous polymerization: Will not occur.

Conditions to avoid: Avoid sources of heat, flame, and direct sunlight.

Materials to avoid (incompatibles): Acids, bases, strong oxidizing agents.

Hazardous decomposition products: *Combustion:* Carbon oxides, nitrogen oxides, sulfur oxides. *Hydrolysis:* None known. On exposure to air, product may slowly polymerize. This process is accelerated by direct sunlight.

SECTION 11 — TOXICOLOGICAL INFORMATION

Toxicological data: There is no available data for the product itself, only for the ingredients. See below for individual ingredient acute toxicity data for components in 1% concentration or greater. Additional data is available but is not presented in this MSDS. Contact BK Enterprises for more information. See next page for tabulated information.

Ingredients	LC ₅₀ (4hr) inhalation, rat	LD ₅₀ (mg/kg) oral, rat	LD ₅₀ (mg/kg) dermal, rabbit
Surfactant	Not established.	Not established.	Not established.
n-Methyl-Pyrrolidone	Not established	3914	8000
2-Butoxyethanol	450 ppm	530	400
Ethanol	20,000 ppm / 10 hrs.	7060	Not available.
Cycloalkane	Not established	4400	> 5000

SECTION 11 — TOXICOLOGICAL INFORMATION (Continued)

Carcinogenicity: Components of this product are listed by agencies tracking the carcinogenic potential of chemical compounds, as follows:

2-Butoxyethanol: ACGIH TLV-A3 (Confirmed Animal Carcinogen with Unknown Relevance to Humans); EPA-C (Possible Human Carcinogen); EPA-CBD (Cannot Be Determined); IARC-3 (Unclassifiable as to Carcinogenicity in Humans); MAK-4 (Substances with carcinogenic potential for which genotoxicity plays no or at most a minor role. No significant contribution to human cancer risk is expected, provided the MAK value is observed.)

Cycloalkane: IARC-3 (Unclassifiable as to Carcinogenicity in Humans); MAK-5 (Substances with carcinogenic and genotoxic effects, the potency of which is considered to be so low that, provided the MAK and BAT values are observed, no significant contribution to human cancer is to be expected.)

Ethanol: ACGIH TLV-A4 (Not Classifiable as a Human Carcinogen); MAK-5 (Substances with carcinogenic and genotoxic effects, the potency of which is considered to be so low that, provided the MAK and BAT values are observed, no significant contribution to human cancer is to be expected.)

None of the remaining ingredients listed are classified by IARC, ACGIH, NTP, MAK, EPA, NIOSH or OSHA as carcinogenic.

Reproductive effects, Teratogenicity, Mutagenicity: This product contains a n-Methyl-2-Pyrrolidone. This material may cause embryotoxic and teratogenic effects, based on animal data. These effects were noted following doses which were administered by injection (intraperitoneal), or following doses which were maternally toxic and were administered dermally. This product contains Ethanol, which is a known human reproductive toxin when ingested as alcoholic beverages. No reproductive effects have been reported following Ethanol exposure in the workplace. It is known to cause mutations to germ cells and somatic cells in animals. In addition, this material causes embryotoxicity, fetotoxicity and teratogenicity in animals, in the presence of maternal toxicity.

Sensitization to material: Due to the presence of d-Limonene this product may cause an allergic skin response (intense itching, swelling and redness) in susceptible individuals; once sensitized contact with very small amount can cause allergic reaction.

Synergistic materials: Not available.

Other important hazards: CNS depression may result from exposure.

SECTION 12 — ECOLOGICAL INFORMATION

Ecotoxicological information: The ecological characteristics of this product have not been fully investigated. The product should not be allowed to enter drains or water courses or be deposited where it can affect ground or surface waters. Do not discharge product unmonitored into the environment.

Chemical fate information: There is no data available on the product itself. The main components of this product are expected to biodegrade by atmospheric, aquatic and ground applications.

SECTION 13 — DISPOSAL CONSIDERATIONS

Handling for disposal: Handle according to recommendations listed in Section 7.

Methods of disposal: Dispose in accordance with all applicable federal, state and local regulations. Contact your local, state or federal environmental agency for specific rules.

RCRA: For disposal of unused or waste material, check with local, state and federal environmental agencies.

SECTION 14 — TRANSPORTATION INFORMATION

U.S. DOT transportation regulation information: This product is classified as Dangerous Goods under regulations of the U.S. DOT, 49 CFR as follows:

Proper Shipping Name: Flammable Liquid, n.o.s. (Ethanol)

Note: *Quart and pint containers are considered ORM-D under 49CFR173.150.*

Hazard Class- Primary: **3 (Flammable)**

Identification No.: UN 1993

Packing Group: **II**

Hazard Labels: **Class 3 (Flammable)**

RQ LBS: **None**

Marine Pollutant: **None**

Special Transportation Notes: **This material may be shipped by ground within the United States in limited quantities under the heading of Other Regulated Materials – D (ORM-D). Refer to 49 CFR Part 173.202 for appropriate packaging information when shipping in non-bulk containers.**



Preparation Date: February 17, 2009

SECTION 14 — TRANSPORTATION INFORMATION (Continued)

Transport Canada transportation regulation information: This product is classified as Dangerous Goods, per regulations of Transport Canada. The use of the above U.S. DOT information from the U.S. 49 CFR regulations is allowed for shipments that originate in the U.S. For shipments via ground vehicle or rail that originate in Canada, the following information is applicable

Proper Shipping Name: **Flammable Liquid, n.o.s. (Ethanol)**

Hazard Class Number and Description: **3 (Flammable)**

UN Identification Number: **UN 1993**

Packing Group: **II**

Hazard Label(S) Required: **Class 3 (Flammable)**

Special Provisions: **16**

Explosive Limit & Limited Quantity Index: **0.5**

ERAP Index: **None**

Passenger Carrying Ship Index: **None**

Passenger Carrying Road or Rail Vehicle Index: **1**

Marine Pollutant: **None**

SECTION 15 — REGULATORY INFORMATION**U.S. FEDERAL REGULATION INFORMATION:**

TSCA information: All ingredients are listed on the TSCA inventory.

DOT/CERCLA Reportable Quantity (RQ): None

SARA TITLE III:

Sec. 302, Extremely Hazardous Substances, 40 CFR 355: No Extremely Hazardous Substances are present.

Sec. 311 and 312, MSDS Requirements, 40 CFR 370 Hazard Classes: Immediate (Acute); Delayed (Chronic). Under SARA Sections 311 and 312, the EPA has established threshold quantities for the reporting of hazardous chemicals. The current thresholds are 500 pounds for the threshold planning quantity (TPQ), whichever is lower, for extremely hazardous substances and 10,000 pounds for all other hazardous chemicals.

Sec. 313, Toxic Chemicals Notification, 40 CFR 372: This material may be subject to TSCA notification requirements, since it contains n-Methyl-2-pyrrolidone, a Toxic Chemical constituent.

California Proposition 65: The n-Methyl-2-pyrrolidone component (Cyclic Amide) is listed on Proposition 65 as a chemical that can cause developmental harm.

State Right-to-Know Laws: This preparation contains components that are on the Right-to-Know Lists of several states. The following table contains the components list and the States that list the component on their Right-to-Know Lists. Any state not listed follows the OSHA list of the US Federal Government.

CHEMICAL NAME	STATES REQUIRING NOTIFICATION
Cycloalkane	None
2-Butoxyethanol	CA, NJ, PA, MN, MA
Surfactant	None
n-Methyl-2-Pyrrolidone*	PA, MN, MA
Ethanol	CA, NJ, PA, MN, MA

* - n-Methyl-2-Pyrrolidone is listed separately on the California Proposition 65 List.

SECTION 15 — REGULATORY INFORMATION (Continued)

CANADIAN FEDERAL REGULATION INFORMATION:

Canadian DSL/NDSL Inventory status: Components of this product are listed on the DSL Inventory.

Canadian Environmental Protection Act (CEPA) Priorities Substances Lists: No component of this product is on the CEPA Priorities Substances Lists.

Canadian WHMIS classification and symbols:

Class B2: Flammable Liquid

Class D2A, D2B: Material Causing Other Toxic Effects (Toxicity-Irritation)



SECTION 16 — OTHER INFORMATION

Legend: ACGIH: American Conference of Governmental Industrial Hygienists
CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act of 1980
NIOSH: National Institute of Occupational Safety and Health
CAS: Chemical Abstract Services
DOT: Department of Transportation
IARC: International Agency for Research on Cancer
N/Ap: not applicable
OSHA: Occupational Safety and Health Administration
RCRA: Resource Conservation and Recovery Act
SARA: Superfund Amendments & Reauthorization Act
TSCA: Toxic Substance Control Act
RTECs: Registry of Toxic Effects of Chemical Substances
HSDB: Hazardous Substances Data Bank
CFR: Code of Federal Regulations
EPA: Environmental Protection Agency
MST: Mountain Standard Time
N/Av: not available
NTP: National Toxicology Program
PEL: Permissible Exposure Limit
TLV: Threshold Limit Values
TWA: Time Weighted Average

Disclaimer:

The information in this MSDS was obtained from sources we believe are reliable. We believe the information was accurate at the time it was compiled. However, no warranty, express or implied, including, without limitation, any warranty of **fitness for a particular purpose or merchantability**, is made as to the accuracy, reliability or completeness of this information, and all such warranties are disclaimed. The conditions of storing, handling and use being beyond the manufacturer's control, it is the sole responsibility of the user to determine all appropriate precautions for the safe handling and use of this product. The information contained herein pertains only to this product and not to its use in combination with any other materials. It is the user's responsibility to comply with all applicable federal, state, and local laws. Manufacturer disclaims all liability for incidental or consequential damages arising out of or in connection with the use of, or inability to use, this product.

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Preparation date: February 17, 2009

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