



QWIK-Brite

QB1 (475210), QB5 (475209)

MSDS Preparation Date (mm/dd/yyyy): 02/09/2013

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MATERIAL SAFETY DATA SHEET

SECTION 1 - IDENTIFICATION

Product identifier : **QWIK-Brite**

Product Code(s) : QB1 (475210), QB5 (475209)

Product Use : Professional Use Only

Chemical Family : Mixture.

Supplier's name and address:

Manufacturer's name and address:

Parker Hannifin Corporation - Sporlan Division

Refer to Supplier

206 Lange Drive
Washington, MO, U.S.A.
63090

Information Telephone # : (636) 239-1111

24 Hr. Emergency Tel # : Chemtrec 1-800-424-9300 (Within Continental U.S.); Chemtrec 703-527-3887 (Outside U.S.).

SECTION 2 - HAZARDS IDENTIFICATION

Classification : WHMIS information: This product is a WHMIS Controlled Product. It meets one or more of the criteria for a controlled product provided in Part IV of the Canadian Controlled Products Regulations (CPR). WHMIS classification:
Class D2B (Materials Causing Other Toxic Effects, Toxic Material)
Class E (Corrosive Material)

OSHA: This material is classified as hazardous under OSHA regulations (29CFR 1910.1200). Hazardous classification:

Acute Health Hazard

Chronic Health Hazard

Emergency Overview : Pink liquid. Bland odor. DANGER! CORROSIVE LIQUID! Causes serious eye damage. Causes skin burns. May be corrosive to metals.

POTENTIAL HEALTH EFFECTS:

Signs and symptoms of short-term (acute) exposure

Inhalation : High concentrations of vapors or mists may cause coughing and mild, temporary irritation.

Skin : Prolonged contact may produce chemical burns to affected skin areas. Severe irritation, burns, ulcerations and contact dermatitis can result.

Eyes : Corrosive to eyes. May cause corneal ulceration if exposure is severe or untreated. Symptoms may include severe pain, blurred vision, redness and corrosive damage.

Ingestion : May cause chemical burns of the mouth, throat, esophagus and stomach. Symptoms may include abdominal pain, nausea, vomiting, diarrhea and collapse.

Effects of long-term (chronic) exposure

: Prolonged exposure may cause skeletal fluorosis (weakened bone structure). Symptoms of Fluorosis include fragile bones, stiffness of the joints, osteosclerosis, loss of appetite, nausea, vomiting, dyspnea, salivation, abdominal pain, fever, paresthesias, nystagmus, optic neuritis, polyuria, stomatitis, albuminuria, nettle rash, skin, tooth and kidney damage and cardiac arrhythmias. Fluoride ion can reduce serum calcium levels possibly causing fatal hypocalcemia. Prolonged exposure to fluoride dust, vapors or mists results in perforation of the nasal septum. Chronic effects include excessive calcification of the bones, ligaments and tendons.

Carcinogenic status : See TOXICOLOGICAL INFORMATION, Section 11.

Additional health hazards : See TOXICOLOGICAL INFORMATION, Section 11.

Potential environmental effects



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: See ECOLOGICAL INFORMATION, Section 12.

May be corrosive to steel and aluminum.

SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS

<u>Ingredients</u>	<u>CAS #</u>	<u>Wt.%</u>
Ammonium bifluoride	1341-49-7	1.00 - 5.00
Urea hydrochloride	506-89-8	5.00 - 10.00
Alcohols, C9-11, ethoxylated	68439-46-3	0.50 - 2.00
Diethylene glycol monobutyl ether	112-34-5	1.00 - 5.00

SECTION 4 - FIRST AID MEASURES

- Inhalation** : Remove exposed person to fresh air immediately. If breathing is difficult, give oxygen by qualified medical personnel only. If breathing has stopped, give artificial respiration. Obtain medical advice.
- Skin contact** : Remove contaminated clothing and shoes. Flush skin thoroughly with running water for at least 15 to 20 minutes. Wash contaminated clothing before reuse. If irritation or symptoms develop, seek medical attention.
- Eye contact** : Flush with large amounts of water for 15 minutes. Lift upper and lower lids during flushing to ensure complete removal of chemical. Remove contact lenses if present and easy to do. Seek immediate medical attention/advice.
- Ingestion** : Do not induce vomiting, unless directed to do so by qualified medical personnel. Gently wipe or rinse the inside of the mouth with water. If conscious, drink plenty of water. Get medical attention. Never give anything by mouth to an unconscious person.
- Notes For Physician** : Liquid may cause severe irritation or corrosive injury. Treat symptomatically.

SECTION 5 - FIRE FIGHTING MEASURES

Fire hazards/conditions of flammability

- : Not flammable under normal conditions of use.

Flammability classification (OSHA 29 CFR 1910.1200)

- : Not flammable.

Oxidizing properties

- : None.

Explosion data: Sensitivity to mechanical impact / static discharge

- : Not expected to be sensitive to mechanical impact or static discharge.

Suitable extinguishing media

- : Use media suitable to the surrounding fire such as water fog or fine spray, alcohol foams, carbon dioxide and dry chemical.

Special fire-fighting procedures/equipment

- : Firefighters should wear proper protective equipment and self-contained breathing apparatus with full face piece operated in positive pressure mode. Move containers from fire area if safe to do so. Water spray may be useful in cooling equipment exposed to heat and flame.

Hazardous combustion products

- : Carbon dioxide, carbon monoxide and other unidentified organic compounds. See Section 10.

NFPA Rating

- 0 - Minimal 1 - Slight 2 - Moderate 3 - Serious 4 - Severe
: Health: 3 Flammability: 0 Instability: 0 Special Hazards: None

SECTION 6 - ACCIDENTAL RELEASE MEASURES



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- Personal precautions** : Restrict access to area until completion of clean-up. Ensure clean-up is conducted by trained personnel only. Individuals involved in the cleanup must wear appropriate personal protective equipment. For personal protection see section 8.
- Environmental precautions** : Ensure spilled product does not enter drains, sewers, waterways, or confined spaces.
- Spill response/cleanup** : Ventilate area of release. Stop the spill at source if it is safe to do so. Contain and absorb spilled liquid with non-combustible, inert absorbent material (e.g. sand), then place absorbent material into a container for later disposal (see Section 13). Notify the appropriate authorities as required.
- Prohibited materials** : None known.
- Special spill response procedures** : If a spill/release in excess of the EPA reportable quantity is made into the environment, immediately notify the national response center in the United States (phone: 1-800-424-8802). US CERCLA Reportable quantity (RQ): Ammonium bifluoride 100 lb/45.4 kg

SECTION 7 - HANDLING AND STORAGE

- Safe Handling procedures** : This material is a corrosive, harmful liquid. Wash hands thoroughly after using this product, and before eating, drinking or smoking. Wear protective gloves and eye/face protection.
- Storage requirements** : Store in a cool, dry, well ventilated area. Store away from incompatible materials. 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.
- Incompatible materials** : Acids, strong oxidizing agents, bases. May attack easily-corroded metal surfaces.
- Special packaging materials** : Always keep in containers made of the same materials as the supply container.

SECTION 8 - EXPOSURE CONTROLS AND PERSONAL PROTECTION

Exposure Limits

<u>Ingredients</u>	<u>ACGIH TLV</u>		<u>OSHA PEL</u>	
	<u>TWA</u>	<u>STEL</u>	<u>PEL</u>	<u>STEL</u>
Ammonium bifluoride	N/Av	N/Av	N/Av	N/Av
Urea hydrochloride	N/Av	N/Av	N/Av	N/Av
Alcohols, C9-11, ethoxylated	N/Av	N/Av	N/Av	N/Av
Diethylene glycol monobutyl ether	100 mg/m ³ (inhalable) (vapor)	N/Av	N/Av	N/Av

- Ventilation and engineering measures** : General mechanical ventilation is sufficient for use with this product.
- Respiratory protection** : Respiratory protection is required if the concentrations exceed the TLV. Where occupational exposure limits are exceeded, workers must wear a suitable, approved respirator with a N95 or HEPA filter.
- Skin protection** : Impervious gloves must be worn when using this product. Advice should be sought from glove suppliers.
- Eye / face protection** : Safety goggles or glasses as appropriate for the job.
- Other protective equipment** : Wear long sleeved clothing, such as a lab coat, to prevent skin contact. An eyewash station and safety shower should be made available in the immediate working area.
- General hygiene considerations** : Wash hands thoroughly after using this product, and before eating, drinking or smoking. Clean up spills immediately.



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SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Physical state	: Liquid	Appearance	: Clear pink liquid
Odour	: Bland odor.	Odour threshold	: N/Av
pH	: < 2		
Boiling point	: 100 °C (212 °F)	Specific gravity	: 8.36 (0.302 lbs/in3)
Melting/Freezing point	: <0 °C (32°F)	Coefficient of water/oil distribution	: N/Av
Vapour pressure (mmHg @ 20° C / 68° F)	: N/Av	Solubility in water	: Miscible
Vapour density (Air = 1)	: N/Av	Evaporation rate (n-Butyl acetate = 1)	: > 1
Volatile organic Compounds (VOC's)	: 20 g/L	Volatiles (% by weight)	: N/Av
Flash point	: None.		
Flash point Method	: Seta Flash CC	Auto-ignition temperature	: N/Av
Lower flammable limit (% by vol.)	: N/Av	Upper flammable limit (% by vol.)	: N/Av
Flame Projection Length	: N/Av	Flashback observed	: N/Av
Viscosity	: < 10 cps		
Absolute pressure of container	: N/Av		

SECTION 10: STABILITY AND REACTIVITY

Stability and reactivity	: Stable under the recommended storage and handling conditions prescribed. Reacts with acids to release flammable hydrogen gas.
Hazardous polymerization	: Hazardous polymerization does not occur.
Conditions to avoid	: Avoid dust formation. Avoid heat and open flame. Avoid contact with incompatible materials.
Materials To Avoid And Incompatibility	: Incompatible materials (see Section 7).
Hazardous decomposition products	: Ammonium bifluoride decomposes at 240 deg C and above, to form very toxic and extremely corrosive hydrogen fluoride gas. At the high temperatures experience in a fire, ammonium bifluoride decomposes to form hydrogen fluoride, irritating and toxic ammonia, and nitrogen oxides.

SECTION 11 - TOXICOLOGICAL INFORMATION

Target organs	: Eyes, skin, respiratory system and digestive system.
Routes of exposure	: <i>Inhalation:</i> YES <i>Skin Absorption:</i> YES <i>Skin & Eyes:</i> YES <i>Ingestion:</i> YES
Toxicological data	: There is no available data for the product itself, only for the ingredients. See below for individual ingredient acute toxicity data.

<u>Ingredients</u>	<u>LC₅₀(4hr)</u>		<u>LD₅₀</u>	
	<u>inh, rat</u>	<u>(Oral, rat)</u>	<u>(Rabbit, dermal)</u>	
Ammonium bifluoride	N/Av	130 mg/kg	N/Av	
Urea hydrochloride	N/Av	N/Av	N/Av	
Alcohols, C9-11, ethoxylated	N/Av	1378 mg/kg	>2000 mg/kg	
Diethylene glycol monobutyl ether	N/Av	6560 mg/kg	2764 mg/kg	

Carcinogenic status	: Not expected to have carcinogenic effects. No ingredients listed by IARC or NTP.
Reproductive effects	: Not expected to cause reproductive effects.



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- Teratogenicity** : Not expected to be a teratogen.
- Mutagenicity** : Not expected to be mutagenic in humans.
- Epidemiology** : None known or reported by the manufacturer.
- Sensitization to material** : Not expected to be a skin or respiratory sensitizer.
- Synergistic materials** : None known or reported by the manufacturer.
- Irritancy** : Severe irritation will result from direct contact.
- other important hazards** : None known or reported by the manufacturer.
- Conditions aggravated by overexposure**
 - : May aggravate existing dermatitis, asthma, inflammatory or fibrotic pulmonary disease.

SECTION 12 - ECOLOGICAL INFORMATION

Ecotoxicity : No data is available on the product itself.

Ecotoxicity data:

<u>Ingredients</u>	CAS No	Toxicity to Fish		
		LC50 / 96h	NOEC / 21 day	M Factor
Ammonium bifluoride	1341-49-7	N/Av	N/Av	None.
Urea hydrochloride	506-89-8	N/Av	N/Av	None.
Alcohols, C9-11, ethoxylated	68439-46-3	N/Av	N/Av	None.
Diethylene glycol monobutyl ether	112-34-5	N/Av	N/Av	None.

<u>Ingredients</u>	CAS No	Toxicity to Daphnia		
		EC50 / 48h	NOEC / 21 day	M Factor
Ammonium bifluoride	1341-49-7	N/Av	N/Av	None.
Urea hydrochloride	506-89-8	N/Av	N/Av	None.
Alcohols, C9-11, ethoxylated	68439-46-3	N/Av	N/Av	None.
Diethylene glycol monobutyl ether	112-34-5	2850 mg/L/24hr (Daphnia magna)	N/Av	None.

<u>Ingredients</u>	CAS No	Toxicity to Algae		
		EC50 / 96h or 72h	NOEC / 96h or 72h	M Factor
Ammonium bifluoride	1341-49-7	N/Av	N/Av	None.
Urea hydrochloride	506-89-8	N/Av	N/Av	None.
Alcohols, C9-11, ethoxylated	68439-46-3	N/Av	N/Av	None.
Diethylene glycol monobutyl ether	112-34-5	N/Av	N/Av	None.

- Mobility** : No data is available on the product itself.
- Persistence** : No data is available on the product itself.
- Bioaccumulation potential** : No data is available on the product itself.
- Other Adverse Environmental effects**
 - : No data is available on the product itself.



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SECTION 13 - DISPOSAL CONSIDERATIONS

- Handling for Disposal** : See Section 7 (Handling and Storage) for further details.
- Methods of Disposal** : Dispose in accordance with all applicable federal, state, provincial and local regulations. Contact your local, state or federal environmental agency for specific rules.
- RCRA** : If this product, as supplied, becomes a waste in the United States, it may meet the criteria of a hazardous waste as defined under RCRA, Title 40 CFR 261. It is the responsibility of the waste generator to determine the proper waste identification and disposal method. For disposal of unused or waste material, check with local, state and federal environmental agencies.

SECTION 14: TRANSPORT INFORMATION

Regulatory Information	UN Number	Shipping Name	Class	Packing Group	Label
49CFR/DOT	UN1760	Corrosive liquid, n.o.s. (Ammonium bifluoride, Urea hydrochloride)	8	II	
49CFR/DOT Additional information	May be shipped as a limited quantity in receptacles not exceeding 1.0 Liters, according to 49 CFR 173.154.				
TDG	UN1760	CORROSIVE LIQUID, N.O.S. (Ammonium bifluoride)	8	II	
TDG Additional information	May be shipped as a Limited Quantity when transported in containers no larger than 1.0 Liter, in packages not exceeding 30 kg gross mass.				
ICAO/IATA	UN1760	Corrosive liquid, n.o.s. (Ammonium bifluoride, Urea hydrochloride)	8	II	
ICAO/IATA Additional information	Refer to ICAO/IATA Packing Instruction Y840, 851, or 855.				
IMDG	UN1760	CORROSIVE LIQUID, N.O.S. (Ammonium bifluoride, Urea hydrochloride)	8	II	
IMDG Additional information	Packing Code: P001 Packing Special Provisions: - IBC Code: IBC02 IBC Special Provision: - IMO Tank Instructions: - UN Tank Instructions: T11 Tank Special Provisions: TP2, TP27				

SECTION 15 - REGULATORY INFORMATION

US Federal Information:

Components listed below are present on the following U.S. Federal chemical lists:



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<u>Ingredients</u>	CAS #	TSCA Inventory	CERCLA Reportable Quantity(RQ) (40 CFR 117.302):	SARA TITLE III: Sec. 302, Extremely Hazardous Substance, 40 CFR 355:	SARA TITLE III: Sec. 313, 40 CFR 372. Specific Toxic Chemical	
					Toxic Chemical	de minimus Concentration
Ammonium bifluoride	1341-49-7	Yes	100 lb/ 45.4 kg	N/Av	No	NS
Urea hydrochloride	506-89-8	Yes	N/Ap	N/Av	No	NS
Alcohols, C9-11, ethoxylated	68439-46-3	Yes	N/Ap	N/Av	No	NS
Diethylene glycol monobutyl ether	112-34-5	Yes	N/Ap	N/Av	No	NS

SARA TITLE III: Sec. 302, Extremely Hazardous Substances, 40 CFR 355: No Extremely Hazardous Substances are present in this material.

SARA TITLE III: Sec. 311 and 312, MSDS Requirements, 40 CFR 370 Hazard Classes: Immediate (Acute) health hazard; Chronic Health Hazard. 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.

SARA TITLE III: Sec. 313, Toxic Chemicals Notification, 40 CFR 372: No Extremely Hazardous Substances are present in this material.

US State Right to Know Laws:

The following chemicals are specifically listed by individual States:

<u>Ingredients</u>	CAS #	California Proposition 65		State "Right to Know" Lists					
		Listed	Type of Toxicity	CA	MA	MN	NJ	PA	RI
Ammonium bifluoride	1341-49-7	No	N/Ap	Yes	Yes	No	Yes	Yes	No
Urea hydrochloride	506-89-8	No	N/Ap	No	No	No	No	No	No
Alcohols, C9-11, ethoxylated	68439-46-3	No	N/Ap	No	No	No	No	No	No
Diethylene glycol monobutyl ether	112-34-5	No	N/Ap	No	No	No	No	No	No

See Table.

Canadian Information:

Canadian WHMIS Classification: This product is a WHMIS Controlled Product. It meets one or more of the criteria for a controlled product provided in Part IV of the Canadian Controlled Products Regulations (CPR). Refer to Section 2 for a WHMIS Classification for this product.

Canadian Environmental Protection Act (CEPA) information: All ingredients listed appear on the Domestic Substances List (DSL).

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.

International Information:

Components listed below are present on the following International Inventory list:



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Ingredients	CAS #	European EINECs	Australia AICS	Philippines PICCS	Japan ENCS	Korea KECI/KECL	China IECSC	NewZealand IOC
Ammonium bifluoride	1341-49-7	215-676-4	Present	Present	(1)-311; (1)-306	KE-01679	Present	HSR003970
Urea hydrochloride	506-89-8	208-059-6	Present	Present	(2)-1732	KE-35150	Present	
Alcohols, C9-11, ethoxylated	68439-46-3	N/Av	Present	Present	(7)-97	KE-13383	Present	HSR003338; HSNO Approval: HSR006495 (dilution)
Diethylene glycol monobutyl ether	112-34-5	203-961-6	Present	Present	(7)-97; (2)-422	KE-10466	Present	HSR001075

SECTION 16 - OTHER INFORMATION

HMIS Rating : * - Chronic hazard 0 - Minimal 1 - Slight 2 - Moderate 3 - Serious 4 - Severe
*Health: *3 Flammability: 0 Reactivity: 0*

Legend : ACGIH: American Conference of Governmental Industrial Hygienists
 CA: California
 CAS: Chemical Abstract Services
 CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act of 1980
 CFR: Code of Federal Regulations
 CNS: Central Nervous System
 DOT: Department of Transportation
 HMIS: Hazardous Materials Identification System
 HSDB: Hazardous Substances Data Bank
 IARC: International Agency for Research on Cancer
 Inh: Inhalation
 LC: Lethal Concentration
 LD: Lethal Dose
 MA: Massachusetts
 MN: Minnesota
 MSHA: Mine Safety and Health Administration
 N/Av: Not Applicable
 N/Av: Not Available
 NFPA: National Fire Protection Association
 NJ: New Jersey
 NIOSH: National Institute of Occupational Safety and Health
 NTP: National Toxicology Program
 OSHA: Occupational Safety and Health Administration
 PA: Pennsylvania
 PEL: Permissible exposure limit
 RCRA: Resource Conservation and Recovery Act
 RI: Rhode Island
 RTECS: Registry of Toxic Effects of Chemical Substances
 SARA: Superfund Amendments and Reauthorization Act
 STEL: Short Term Exposure Limit
 TDG: Canadian Transportation of Dangerous Goods Act & Regulations
 TLV: Threshold Limit Values
 TWA: Time Weighted Average
 WHMIS: Workplace Hazardous Materials Identification System



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References

- : 1. ACGIH, Threshold Limit Values and Biological Exposure Indices for 2013.
- 2. International Agency for Research on Cancer Monographs, searched 2013.
- 3. Canadian Centre for Occupational Health and Safety, CCHInfoWeb databases (Chempendium, HSDB and RTECs). (2013)
- 3. Material Safety Data Sheets/Safety Data Sheets from manufacturer.
- 5. US EPA Title III List of Lists - 2013 version
- 6. California Proposition 65 List - July 26, 2013 version

<p>Prepared for: Parker Hannifin Corporation - Sporlan Division 206 Lange Drive, Washington, MO, U.S.A. 63090 Telephone: (636) 239-1111 www.parker.com Direct all enquiries to: Parker Hannifin Corporation - Sporlan Division.</p>	
<p>Prepared by: ICC The Compliance Center Inc. http://www.thecompliancecenter.com</p>	

DISCLAIMER OF LIABILITY

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