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M A T E R I A L   S A F E T Y   D A T A   S H E E T  
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SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION  
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PRODUCT NAME : BRAKE CLEANER NON-CHLORINATED  
IDENTIFICATION NUMBER: 4540 DATE PRINTED: 08/28/07  
PRODUCT USE/CLASS : BRAKE CLEANER

MANUFACTURER/SUPPLIER:  
INTERNATIONAL EPOXIES AND SEALERS  
30241 COMMERCE DRIVE  
SAN ANTONIO, FL 33576  
TELEPHONE: (800) 451-7206

EMERGENCY TELEPHONE: INFOTRAC: 1-800-535-5053  
OUTSIDE THE U.S. CALL COLLECT: 1-352-323-3500

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SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENTS  
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ITEM	CHEMICAL NAME	CAS NUMBER	WT/WT % LESS THAN
01	N-HEXANE	110-54-3	90.0 %
02	ETHANOL-A2	64-17-5	10.0 %
03	CARBON DIOXIDE	124-38-9	5.0 %
04	METHYL ALCOHOL	67-56-1	5.0 %

ITEM	EXPOSURE LIMITS				COMPANY TLV-TWA	SKIN
	ACGIH TLV-TWA	ACGIH TLV-STEL	OSHA PEL-TWA	OSHA PEL-CEILING		
01	50 PPM	N.E.	50 PPM	500 PPM	N.E.	YES
02	200 PPM SKIN	250 PPM SKIN	200 PPM	N.E.	N.E.	NO
03	5000 PPM	30000 PPM	5000 PPM	N.E.	N.E.	YES
04	200 PPM SKIN	250 PPM SKIN	200 PPM SKIN	N.E.	N.E.	NO

(See Section 16 for abbreviation legend)

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SECTION 3 - HAZARDS IDENTIFICATION

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\*\*\* EMERGENCY OVERVIEW \*\*\*: Vapors irritating to eyes and respiratory tract. Vapors may cause flash fire or explosion.

EFFECTS OF OVEREXPOSURE - EYE CONTACT: Liquid, aerosols and vapors of this product are irritating and can cause pain, tearing, reddening and swelling accompanied by a stinging sensation and/or a feeling like that of fine dust in the eyes.

EFFECTS OF OVEREXPOSURE - SKIN CONTACT: Prolonged or repeated contact can result in defatting and drying of the skin which may result in skin irritation and dermatitis (rash).

EFFECTS OF OVEREXPOSURE - INHALATION: Headaches, dizziness, nausea, decreased blood pressure, changes in heart rate and cyanosis may result from over-exposure to vapor or skin exposure. Prolonged inhalation may be harmful.

EFFECTS OF OVEREXPOSURE - INGESTION: This material may be harmful or fatal if swallowed. If a Corrosive product, may cause severe and permanent damage to mouth, throat and stomach.

EFFECTS OF OVEREXPOSURE - CHRONIC HAZARDS: Overexposure may cause nervous system damage. Overexposure may cause lung damage. Overexposure may cause kidney damage. May cause liver disorder (e.g., edema, proteinuria) and damage.

PRIMARY ROUTE(S) OF ENTRY: INHALATION SKIN ABSORPTION SKIN CONTACT EYE CONTACT INGESTION

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SECTION 4 - FIRST AID MEASURES

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FIRST AID - EYE CONTACT: Immediately flush eyes with plenty of water. Get medical attention, if irritation persists.

FIRST AID - SKIN CONTACT: Wash with soap and water. Get medical attention if irritation develops or persists.

FIRST AID - INHALATION: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get immediate medical attention.

FIRST AID - INGESTION: Get medical attention immediately. If swallowed, do NOT induce vomiting. Give victim a glass of water or milk. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person.

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SECTION 5 - FIRE FIGHTING MEASURES

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FLASH POINT: -10 F  
(PENSKY-MARTENS C.C.)

LOWER EXPLOSIVE LIMIT: 1.0 %  
UPPER EXPLOSIVE LIMIT: 36.0 %

AUTOIGNITION TEMPERATURE: ND

EXTINGUISHING MEDIA: FOAM CO2 DRY CHEMICAL ALCOHOL FOAM

UNUSUAL FIRE AND EXPLOSION HAZARDS: Vapors can travel to a source of ignition and flash back. "Empty" containers retain product residue (liquid and/or vapor) and can be dangerous. DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION; THEY MAY EXPLODE AND CAUSE INJURY OR DEATH. Empty drums should be completely drained, properly bunged and promptly returned to a drum reconditioner, or properly disposed of.

SPECIAL FIREFIGHTING PROCEDURES: Containers can build up pressure if exposed to heat (fire). As in any fire, wear self-contained breathing apparatus pressure-demand (MSHA/NIOSH approved or equivalent) and full protective gear.

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SECTION 6 - ACCIDENTAL RELEASE MEASURES

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STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Absorb spill with inert material (e.g. dry sand or earth), then place in a chemical waste container.

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SECTION 7 - HANDLING AND STORAGE

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HANDLING: Wash thoroughly after handling.

STORAGE: Keep away from heat, sparks and flame. Keep from freezing.

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SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

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ENGINEERING CONTROLS: Local exhaust ventilation may be necessary to control any air contaminants to within their TLVs during the use of this product.

RESPIRATORY PROTECTION: A NIOSH/MSHA approved air purifying respirator with an organic vapor cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed

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SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

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exposure limits. Protection provided by air purifying respirators is limited. Use a positive pressure air supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air purifying respirators may not provide adequate protection.

SKIN PROTECTION: Where contact is likely, wear chemical resistant gloves, a chemical suit, rubber boots, and chemical safety goggles plus a face shield.

EYE PROTECTION: Wear safety glasses with side shields (or goggles) and a face shield.

OTHER PROTECTIVE EQUIPMENT: STANDARD INDUSTRIAL CLOTHING STANDARDS SHOULD BE FOLLOWED.

HYGIENIC PRACTICES: Wash hands before eating. Remove contaminated clothing and wash before reuse. Use only in a well ventilated area. Follow all MSDS/label precautions even after container is emptied because they may retain product residues. Avoid prolonged or repeated contact with skin. Avoid breathing vapors from heated material. Avoid contact with eyes, skin, and clothing.

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SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

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BOILING RANGE	: 147 - 237 F	VAPOR DENSITY	: Is heavier than air
ODOR	: SOLVENT	ODOR THRESHOLD	: ND
APPEARANCE	: CLEAR	EVAPORATION RATE:	Is faster than Butyl Acetate
SOLUBILITY IN H2O	: NEGLIGIBLE	SPECIFIC GRAVITY:	0.9135
FREEZE POINT	: 32	pH @ 0.0 %	: NA
VAPOR PRESSURE	: 95-105	VISCOSITY	: NA
PHYSICAL STATE	: LIQUID		
COEFFICIENT OF WATER/OIL DISTRIBUTION: COMPLETE			

(See Section 16 for abbreviation legend)

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SECTION 10 - STABILITY AND REACTIVITY

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CONDITIONS TO AVOID: ALL SOURCES OF IGNITION, WELDING ARCS, AND OPEN FLAMES.

INCOMPATIBILITY: STRONG ACIDS, ALKALIS, OXIDIZERS, AND AMINES.

HAZARDOUS DECOMPOSITION PRODUCTS: OXIDES OF CARBON, OXIDES OF NITROGEN, AND MAY PRODUCE FORMS OF CHLORIDE, CHLORINE, AND PHOSGENE.

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SECTION 10 - STABILITY AND REACTIVITY  
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HAZARDOUS POLYMERIZATION: Will not occur under normal conditions.

STABILITY: This product is stable under normal storage conditions.

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SECTION 11 - TOXICOLOGICAL PROPERTIES  
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PRODUCT LD50: 5628 mg/kg

PRODUCT LC50: 39000 ppm

## COMPONENT TOXICOLOGICAL INFORMATION:

----- CHEMICAL NAME -----	----- LD50 -----	----- LC50 -----
N-HEXANE	28710 MG/KG/RAT	150000 MG/M3/MOUSE
ETHANOL-A2	9000 MG/KG/RAT	39000 MG/M3/4H/MSE
CARBON DIOXIDE	NE	NE
METHYL ALCOHOL	5628 MG/KG/RAT	86000 MG/M3/HUMAN
HEXANONE	2080 MG/KG/RAT	100000 MG/M3/RAT

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SECTION 12 - ECOLOGICAL INFORMATION  
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ECOLOGICAL INFORMATION: No Information.

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SECTION 13 - DISPOSAL CONSIDERATIONS  
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DISPOSAL METHOD: DISPOSE IN ACCORDANCE WITH ALL FEDERAL, STATE, AND LOCAL REGULATIONS.

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SECTION 14 - TRANSPORTATION INFORMATION  
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DOT PROPER SHIPPING NAME: CONSUMER COMMODITY

DOT TECHNICAL NAME: ORM-D

DOT HAZARD CLASS:

HAZARD SUBCLASS:

DOT UN/NA NUMBER:

PACKING GROUP:

RESP. GUIDE PAGE:

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SECTION 15 - REGULATORY INFORMATION  
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U.S. FEDERAL REGULATIONS: AS FOLLOWS -

OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200)

CERCLA - SARA HAZARD CATEGORY:

This product has been reviewed according to the EPA 'Hazard Categories' promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:

IMMEDIATE HEALTH HAZARD    CHRONIC HEALTH HAZARD    FIRE HAZARD    PRESSURIZED  
GAS HAZARD

SARA SECTION 313:

This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372:

----- CHEMICAL NAME -----	CAS NUMBER	WT/WT % IS LESS THAN
N-HEXANE	110-54-3	90.0 %
METHYL ALCOHOL	67-56-1	5.0 %

TOXIC SUBSTANCES CONTROL ACT:

This product contains the following chemical substances subject to the reporting requirements of TSCA 12(B) if exported from the United States:

----- CHEMICAL NAME -----	CAS NUMBER
ETHANOL-A2	64-17-5
METHYL ALCOHOL	67-56-1
HEXANONE	108-10-1

U.S. STATE REGULATIONS: AS FOLLOWS -

NEW JERSEY RIGHT-TO-KNOW:

The following materials are non-hazardous, but are among the top five components in this product:

----- CHEMICAL NAME -----	CAS NUMBER
No non-hazardous materials are among the top five ingredients.	

PENNSYLVANIA RIGHT-TO-KNOW:

The following non-hazardous ingredients are present in the product at greater than 3%:

----- CHEMICAL NAME -----	CAS NUMBER
No non-hazardous ingredients are present at greater than 3%.	

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SECTION 15 - REGULATORY INFORMATION  
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CALIFORNIA PROPOSITION 65:

WARNING: The chemical(s) noted below and contained in this product, are known to the state of California to cause cancer, birth defects or other reproductive harm:

----- CHEMICAL NAME ----- CAS NUMBER  
No Proposition 65 chemicals exist in this product.

INTERNATIONAL REGULATIONS: AS FOLLOWS -

CANADIAN WHMIS: This MSDS has been prepared in compliance with Controlled Product Regulations except for use of the 16 headings.

CANADIAN WHMIS CLASS: No information available.

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SECTION 16 - OTHER INFORMATION  
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HMIS RATINGS - HEALTH: 3            FLAMMABILITY: 3            REACTIVITY: 0

PREVIOUS MSDS REVISION DATE: 04/30/05

VOLATILE ORGANIC COMPOUNDS (VOCS): 5.58 lbs/gal,    668 grams/ltr

LEGEND: N.A. - Not Applicable, N.E. - Not Established,  
          N.D. - Not Determined

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The information contained on this MSDS is been checked and should be accurate. However, it is the responsibility of the user to comply with all Federal, State, and Local laws and regulations.  
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