

MATERIAL SAFETY DATA SHEET FOR ELECTRICAL CONTACT & BRAKE CLEANER

TOTAL Lubricants USA, Inc.
5 N. Stiles Street
Linden NJ 07036

REVISION DATE
11-DEC-06

DATE ISSUED
11-DEC-06

IDENTIFICATION AND EMERGENCY INFORMATION

PRODUCT NAME: BRAKE CLEANER C12X.4L ELECTRICAL CONTACT & BRAKE CLEANER	PRODUCT #: 801205
CHEMICAL NAME: Petroleum Hydrocarbons	CAS #'S: 64742-49-0
PRODUCT APPEARANCE AND ODOR: Clear colorless liquid, Hydrocarbon odor	CHEMICAL FAMILY: Petroleum hydrocarbon
SYNONYMS: Contact and brake cleaner	EMERGENCY TELEPHONE: 1-908-862-9300

COMPONENTS AND HAZARD INFORMATION

COMPONENTS:	W/W	HAZARD DATA (TLV, LD50, LC50, ETC.):
Petroleum hydrocarbons CAS No. 64742-49-0 Contains the following:		n/e *(see note below)
N-Hexane CAS No. 110-54-3		50 ppm ACGIH/OSHA TWA
Cyclohexane CAS No. 110-82-7		300 ppm ACGIH/OSHA TWA
Carbon dioxide CAS No. 124-38-9		5000 ppm ACGIH/OSHA TWA

*Note: The Petroleum hydrocarbons also contain hexane isomers in addition to n-hexane and cyclohexane. Hexane isomers (excluding n-hexane) have a 500 ppm ACGIH/OSHA TWA.

See Toxicity Section for further information.

HAZARDOUS MATERIALS IDENTIFICATION SYSTEM (HMIS):

Health	Flammability	Reactivity
1	3	0

TRANSPORTATION INFORMATION

TRANSPORTATION INCIDENT INFORMATION:

Department Of Transportation (DOT):

Consumer Commodity, Class ORM-D
UN No. (none), PG (none)

MATERIAL SAFETY DATA SHEET FOR ELECTRICAL CONTACT & BRAKE CLEANER

TOTAL Lubricants USA, Inc.
5 N. Stiles Street
Linden NJ 07036

REVISION DATE
11-DEC-06

DATE ISSUED
11-DEC-06

EMERGENCY FIRST AID

EYE CONTACT:

If splashed into the eyes, flush with clear water for 15 minutes or until irritation subsides. If irritation persists, call a physician.

SKIN CONTACT:

In case of skin contact, remove contaminated clothing and wash skin thoroughly with soap and water.

INHALATION:

If overcome by vapor, remove from exposure and call a physician immediately. If breathing is irregular or has stopped, start resuscitation, administer oxygen, if available.

INGESTION:

If ingested, DO NOT induce vomiting; call a physician immediately. Possible aspiration hazard.

FIRE AND EXPLOSION HAZARD INFORMATION

FLASHPOINT (MINIMUM):
Less than 0°F (-18°C) TCC

AUTOIGNITION TEMPERATURE:
511°F

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) - HAZARD IDENTIFICATION:

Health	Flammability	Reactivity
1	3	0

The Aerosol Flammability test (per 49 CFR 173.306(i)) produced a flame extension exceeding 18 inches, thus this product is classified as Flammable per the DOT Regulations.

HANDLING PRECAUTIONS:

DANGER: EXTREMELY FLAMMABLE LIQUID AND VAPOR. CONTENTS UNDER PRESSURE. Do not spray near sparks or open flame. Do not puncture or incinerate or store containers at temperature above 120°F (49°C).

FLAMMABLE OR EXPLOSIVE LIMITS (Approximate percent by volume in air):

Estimated values: Lower Flammable Limit 1.8% Upper Flammable Limit 11.6%

GENERAL HAZARD: Material will readily ignite at ambient temperatures. Toxic gases will form upon combustion. Static discharge material can accumulate static charges which can cause an incendiary electrical discharge.

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.

FIRE FIGHTING:

Use water spray to cool fire exposed surfaces and to protect personnel. Shut off 'fuel' to fire. If a leak or spill has not ignited, use water spray to disperse the vapors. Either allow fire to burn under controlled conditions or extinguish with foam or dry chemical. Respiratory and eye protection required for fire fighters. Liquid is volatile and gives off invisible vapors which may settle in low areas or travel distances along the ground to ignition sources.

MATERIAL SAFETY DATA SHEET FOR ELECTRICAL CONTACT & BRAKE CLEANER

TOTAL Lubricants USA, Inc.
5 N. Stiles Street
Linden NJ 07036

REVISION DATE
11-DEC-06

DATE ISSUED
11-DEC-06

FIRE AND EXPLOSION HAZARD INFORMATION

HEALTH AND HAZARD INFORMATION

VARIABILITY AMONG INDIVIDUALS:

Health studies have shown that many petroleum hydrocarbons and synthetic lubricants pose potential human health risks which may vary from person to person. As a precaution, exposure to liquids, vapors, mists or fumes should be minimized.

POTENTIAL HEALTH EFFECTS

EYE CONTACT: Slightly irritating but does not injure eye tissue.

SKIN CONTACT: Low order of toxicity. Frequent or prolonged contact may cause irritation or lead to dermatitis.

INHALATION: High vapor/aerosol concentrations (greater than approximately 1000 ppm) are irritating to the eyes and respiratory tract, may cause headaches, dizziness, anesthesia, drowsiness, unconsciousness, and other central nervous system effects, including death. Low order of toxicity.

INGESTION: Small amounts of this product aspirated into the respiratory system during ingestion or vomiting may cause mild to severe pulmonary injury, possibly progressing to death.

PHYSICAL DATA

The following data are approximate or typical values and should not be used for precise design purposes.

BOILING RANGE:
151-156°F

VAPOR PRESSURE:
150 mmHg @68°F

SPECIFIC GRAVITY (25°C/25°C):
(WATER = 1)
0.68 @60°F

VAPOR DENSITY (AIR = 1):
2.9

MOLECULAR WEIGHT:
Wide range

PERCENT VOLATILE BY VOLUME:
100%

EVAPORATION RATE @ 1 ATM. AND 25°C
(77°F) (n-BUTYL ACETATE = 1):
15.5

SOLUBILITY IN WATER @ 1 ATM. and 25°C
(77°F):
Nil

REACTIVITY

This product is stable and will NOT react violently with water. Hazardous polymerization will not occur. Avoid contact with strong oxidants such as liquid chlorine, concentrated oxygen, sodium hypochlorite or calcium

MATERIAL SAFETY DATA SHEET FOR ELECTRICAL CONTACT & BRAKE CLEANER

TOTAL Lubricants USA, Inc.
5 N. Stiles Street
Linden NJ 07036

REVISION DATE
11-DEC-06

DATE ISSUED
11-DEC-06

REACTIVITY

hypochlorite, etc., as this represents an explosion hazard.

DECOMPOSITION PRODUCTS UNDER FIRE CONDITIONS:

Fumes, smoke, carbon monoxide, and other decomposition products, in case of incomplete combustion.

CONDITIONS TO AVOID:

Open flames.

TOXICITY

ORAL (Acute)	N/E
DERMAL (Acute)	N/E
EYE	N/E
INHALATION (Acute)	N/E
CHRONIC, SUBCHRONIC, ETC.	N/E

Medical Conditions Aggravated by Exposure: Unknown

This product does NOT contain any ingredients identified as carcinogenic by IARC, NTP, or OSHA.

SARA Section 313 Status: This product contains the following

Name	CAS #	Maximum %
N-Hexane	110-54-3	55%
Cyclohexane	110-82-7	3%

SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:

Eliminate sources of ignition. For small spills, implement cleanup procedures. For large spills, notify proper authorities and if in public, keep public at a distance. Prevent liquid from entering sewers, watercourses, or low areas. Contain spilled liquid by diking or impounding and use absorbent. Do not use combustible materials such as sawdust. Keep spilled areas well ventilated. Minimize breathing vapors.

WASTE DISPOSAL METHOD: (Consult federal, state, or local authorities for proper disposal procedures.)

Assure conformity with applicable disposal regulations. Dispose of absorbed material at an approved waste site or facility.

PROTECTION AND PRECAUTIONS

VENTILATION:

Use only with ventilation sufficient to prevent exceeding recommended exposure limit or buildup of explosive concentrations of vapors in air. No smoking, flame or other ignition sources.

RESPIRATORY PROTECTION: (Use only NIOSH/MSHA approved equipment.)

Use supplied air respiratory protection in confined or enclosed spaces, if

MATERIAL SAFETY DATA SHEET FOR ELECTRICAL CONTACT & BRAKE CLEANER

TOTAL Lubricants USA, Inc.
5 N. Stiles Street
Linden NJ 07036

REVISION DATE
11-DEC-06

DATE ISSUED
11-DEC-06

PROTECTION AND PRECAUTIONS

needed.

PROTECTIVE GLOVES:

Use chemical-resistant gloves, if needed, to avoid prolonged or repeated skin contact.

EYE PROTECTION:

Use splash goggles or face shield when eye contact may occur.

OTHER PROTECTIVE EQUIPMENT:

Use chemical-resistant apron or other impervious clothing, if needed, to avoid contaminating regular clothing which could result in prolonged or repeated skin contact.

WORK PRACTICES/ENGINEERING CONTROLS:

Keep containers closed when not in use. Do not handle near heat, sparks, flame or strong oxidants. To prevent fire or explosion risk from static accumulation and discharge, effectively ground product transfer system in accordance with the National Fire Protection Association standard for petroleum products.

PERSONAL HYGIENE:

Minimize breathing vapor, mist, or fumes. Avoid prolonged or repeated contact with skin. Remove contaminated clothing; launder or dry-clean before reuse. Remove contaminated shoes and thoroughly clean before reuse; discard if oil-soaked. Cleanse skin thoroughly after contact, before breaks and meals, and at end of work period. Product is readily removed from skin by waterless hand cleaners followed by washing thoroughly with soap and water.

PREPARED BY: Steve Smith

REGULATORY MANAGER

THE ABOVE INFORMATION IS ACCURATE TO THE BEST OF OUR KNOWLEDGE. HOWEVER, SINCE DATA, SAFETY STANDARDS, AND GOVERNMENT REGULATIONS ARE SUBJECT TO CHANGE AND THE CONDITIONS OF HANDLING AND USE, OR MISUSE BEYOND OUR CONTROL, SELLER MAKES NO WARRANTY, EITHER EXPRESS OR IMPLIED, WITH RESPECT TO THE COMPLETENESS OR CONTINUING ACCURACY OF THE INFORMATION CONTAINED HEREIN AND DISCLAIMS ALL LIABILITY FOR RELIANCE THEREON. USER SHOULD SATISFY HIMSELF THAT HE HAS ALL CURRENT DATA RELEVANT TO HIS PARTICULAR USE.