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Safety Data Sheet

## Petra Brake Stop Squeak

### 1.- IDENTIFICATION OF THE SUBSTANCE AND OF THE COMPANY

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#### 1.1 PRODUCT IDENTIFIER

PRODUCT FORM: GRAPHITE DISPERSION TRADE  
NAME: PETRA BRAKE STOP SQUEAK PRODUCT CODE:  
6002

#### 1.2 RELEVANT IDENTIFIED USES OF THE SUBSTANCE OR MIXTURE AND USES ADVISED AGAINST

PRODUCT DESIGNED TO COVER BRAKE PADS TO REDUCE NOISE AND SQUEAK.

#### 1.3 DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET:

Petra Oil Company, Inc.  
11085 Regency Green Dr.  
Cypress, TX 77429

PH. NU. 888-738-7261

1.4 EMERGENCY PHONE NUMBER: CHEMTREC: (800) 424-9300

### 2.- HAZARDS IDENTIFICATION

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#### 2.1 CLASSIFICATION (GHS-US)

FLAMMABLE LIQUID (CATEGORY 2)  
ACUTE TOXICITY, INGESTION (CATEGORY 4)  
SKIN IRRITATION (CATEGORY 2)  
EYE IRRITATION (CATEGORY 2)  
EYE DAMAGE (CATEGORY 1)  
STOT SE (CATEGORY 3)

#### 2.2 LABEL ELEMENTS

##### PICTOGRAMS



SIGNAL WORD: **DANGER**



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### HAZARD STATEMENTS

H225 HIGHLY FLAMMABLE LIQUID AND VAPOR  
H302 HARMFUL IF SWALLOWED  
H315 CAUSES SKIN IRRITATION  
H318 CAUSES SERIOUS EYE DAMAGE  
H335 MAY CAUSE RESPIRATORY IRRITATION  
H336 MAY CAUSE DROWSINESS OR DIZZINESS  
H319 CAUSES SERIOUS EYE IRRITATION

### PRECAUTIONARY STATEMENTS

#### PREVENTION

P210: KEEP AWAY FROM HEAT, HOT SURFACES, SPARKS, OPEN FLAMES AND OTHER IGNITION SOURCES. NO SMOKING.  
P233: KEEP CONTAINER TIGHTLY CLOSED  
P240: GROUND/BOND CONTAINER AND RECEIVING EQUIPMENT  
P241: USE EXPLOSION-PROOF EQUIPMENT  
P243: TAKE PRECAUTIONARY MEASURES AGAINST STATIC DISCHARGE.  
P280: WEAR PROTECTIVE GLOVES/PROTECTIVE CLOTHING/EYE PROTECTION/FACE PROTECTION  
P102: KEEP OUT OF REACH OF CHILDREN.  
P103: READ LABEL BEFORE USE

#### RESPONSE

P303+P361+P353 IF ON SKIN (OR HAIR): TAKE OFF IMMEDIATELY ALL CONTAMINATED CLOTHING. RINSE SKIN WITH WATER/ SHOWER

#### STORAGE

P403+P235 STORE IN A WELL VENTILATED PLACE. KEEP COOL.

#### DISPOSAL

P501 DISPOSE CONTENTS BY INCINERATION

### 2.3 OTHER HAZARDS

#### CHRONIC HEALTH EFFECTS

PERSONS WITH PRE-EXISTING LIVER, KIDNEY, CENTRAL NERVOUS SYSTEM AND BLOOD DISORDERS SHOULD AVOID CONTACT WITH THIS PRODUCT.

### 2.4 UNKNOWN ACUTE TOXICITY

NO DATA AVAILABLE



## Petra Brake Stop Squeak

### 3.- COMPOSITION/ INFORMATION ON INGREDIENTS

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#### 3.1 SUBSTANCES

NOT APPLICABLE

#### 3.2 MIXTURES

| NAME        | CAS NUMBER | %          | CLASSIFICATION   |
|-------------|------------|------------|--|
| Propan-2-ol | 67-63-0    | 50 – <75 % | Flam. Liq. 2 / H225. Eye Irrit. 2 / H319. STOT SE 3 / H336 |
| Carbon      | 7440-44-0  | 50 – <75 % | Acute Tox. 4 / H302. Eye Irrit. 2 / H319. STOT SE 3 / H335 |

### 4.- FIRST AID MEASURES

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#### 4.1 DESCRIPTION OF FIRST AID MEASURES

**EYE CONTACT:** IMMEDIATELY WASH EYES WITH PLENTY WATER FOR AT LEAST 15 MINUTES. GET MEDICAL ATTENTION.

**SKIN CONTACT:** IMMEDIATELY WASH SKIN WITH PLENTY OF NEUTRAL SOAP AND WATER FOR AT LEAST 15 MINUTES. REMOVE CONTAMINATED CLOTHING AND SHOES. WASH CLOTHING SEPARATELY BEFORE REUSE OR DISCARD. GET MEDICAL ATTENTION IF IRRITATION DEVELOPS OR PERSISTS.

**INHALATION:** REMOVE PERSON TO FRESH AIR. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN. GET IMMEDIATE MEDICAL ATTENTION.

**INGESTION:** DO NOT INDUCE VOMITING. GIVE AT LEAST 3-4 GLASSES OF WATER. KEEP AFFECTED PERSON WARM AND AT REST. GET IMMEDIATE MEDICAL ATTENTION

**NEVER GIVE ANYTHING IN THE MOUTH TO AN UNCONSCIOUS PERSON.**

#### 4.2 MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED

**SKIN:** MAY CAUSE MILD IRRITATION, REDNESS AND PAIN. ABSORPTION THROUGH SKIN MAY CAUSE SYSTEMIC EFFECTS.

**EYE CONTACT:** VAPORS MAY IRRITATE THE EYES. SPLASHES MAY PRODUCE SEVERE IRRITATION WITH STINGING, TEARING, REDNESS, CORNEAL BURNT AND PAIN.

**INHALATION:** INHALATION OF VAPORS IRRITATES RESPIRATORY TRACT. EXPOSURE TO HIGH CONCENTRATIONS MAY CAUSE DIZZINESS, HEADACHE, CENTRAL NERVOUS SYSTEM



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DEPRESSION, UNCONSCIOUSNESS, LACK OF COORDINATION AND EQUILIBRIUM, LUNG AND KIDNEY DAMAGE AND EVEN DEATH.

**INGESTION:** MAY PRODUCE ABDOMINAL PAIN, CRAMPS, NAUSEA, VOMITING, DIARRHEA, MOUTH AND THROAT IRRITATION. LARGER QUANTITIES MAY CAUSE DIZZINESS, UNCONSCIOUSNESS AND EVEN DEATH.

**4.3 INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED**  
SEE SECTION 2.2 IN THIS SDS

## 5.- FIREFIGHTING MEASURES

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**5.1 EXTINGUISHING MEDIA:** ALCOHOL FOAM, CO<sub>2</sub>, DRY CHEMICAL FOAM, WATER FOG.

**5.2 SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE**

**UNUSUAL FIRE AND EXPLOSION HAZARDS:** FLAMMABLE LIQUID. VAPORS ARE HEAVIER THAN AIR AND CAN GET TO AN IGNITION SOURCE AND FLASH BACK. GRAPHITE PRODUCES SLIPPERY CONDITIONS.

**HAZARD COMBUSTION PRODUCTS:** COMBUSTION MAY FORM: CARBON DIOXIDE AND CARBON MONOXIDE.

**AUTO IGNITION TEMPERATURE:** NOT DETERMINED.

**5.2 ADVICE FOR FIREFIGHTERS**

**PERSONAL PROTECTION:** FIREFIGHTERS MUST WEAR NIOSH APPROVED POSITIVE PRESSURE BREATHING APPARATUS (SCBA) WITH FULL FACE MASK AND FULL PROTECTIVE EQUIPMENT.

**SPECIAL FIREFIGHTING PROCEDURES:** EVACUATE AREA AND FIGHT FIRE FROM A SAFE DISTANCE. IF LEAK OR SPILL HAS NOT IGNITED, VENTILATE AREA AND USE WATER SPRAY TO DISPERSE GAS OR VAPOR AND TO PROTECT PERSONNEL ATTEMPTING TO STOP A LEAK. USE WATER SPRAY TO COOL ADJACENT STRUCTURES AND TO PROTECT PERSONNEL. SHUT OFF SOURCES OF FLOW IF POSSIBLE. STAY AWAY FROM STORAGE TANK ENDS. WITHDRAW IMMEDIATELY IN CASE OF RISING SOUND FROM VENTING SAFETY DEVICE OR ANY DISCOLORATION OF STORAGE TANK DUE TO FIRE. WATER RUNOFF CAN CAUSE ENVIRONMENTAL DAMAGE. DIKE AND COLLECT WATER USED TO FIGHT FIRE. WATER SPRAY MAY BE USED FOR COOLING CONTAINERS TO PREVENT POSSIBLE PRESSURE BUILD-UP.

**SPECIAL PROCEDURES:** COOL CONTAINERS EXPOSED TO FIRE TO PREVENT EXPLOSIONS. RETAIN EXTINGUISHING WATER TO AVOID WATER POLLUTION.

## 6.- ACCIDENTAL RELEASE MEASURES

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**6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES**

**6.1.1 FOR NON-EMERGENCY PERSONNEL**

EVACUATE UNNECESSARY PERSONNEL



## Petra Brake Stop Squeak

### 6.1.2 FOR EMERGENCY RESPONDERS

THE FOLLOWING STEPS SHOULD BE FOLLOWED IN CASE MATERIAL IS RELEASED OR SPILLED: PERSON NOT WEARING PROTECTIVE EQUIPMENT AND CLOTHING SHOULD BE RESTRICTED FROM CONTAMINATED AREAS UNTIL HAS BEEN COMPLETED.

1. DO NOT TOUCH THE SPILLED MATERIAL; STOP THE LEAK IF IT IS POSSIBLE TO DO SO WITHOUT RISK.
2. NOTIFY SAFETY PERSONNEL.
3. REMOVE ALL SOURCES OF HEAT AND IGNITION.
4. VENTILATE POTENTIALLY EXPLOSIVE ATMOSPHERES USING MAXIMALLY EXPLOSION-PROOF EQUIPMENT.
5. USE NONSPARKING TOOLS FOR CLEANUP.
6. WATER SPRAY MAY BE USED TO REDUCE VAPORS, BUT THE SPRAY MAY NOT PREVENT IGNITION IN CLOSED SPACES.

### 6.2 ENVIRONMENTAL PRECAUTIONS

PREVENT ENTRY TO SEWERS AND PUBLIC WATERS. NOTIFY AUTHORITIES IF LIQUID ENTERS SEWERS OR PUBLIC WATERS.

### 6.3 METHODS AND MATERIAL FOR CONTAINMENT AND CLEANING UP

FOR SMALL LIQUID SPILLS, TAKE UP WITH SAND OR OTHER NONCOMBUSTIBLE ABSORBENT MATERIAL AND PLACE INTO CLOSED CONTAINERS FOR LATER DISPOSAL.

FOR LARGE LIQUID SPILL, BUILD DIKES FAR AHEAD OF THE SPILL TO CONTAIN THE MATERIAL FOR LATER RECLAMATION OR DISPOSAL

### 6.4 REFERENCE TO OTHER SECTIONS

SEE HEADING 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION.

## 7.- HANDLING AND STORAGE

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### 7.1 PRECAUTIONS FOR SAFE HANDLING

AVOID BREATHING VAPORS. AVOID CONTACT WITH EYES, SKIN OR CLOTHES. KEEP CONTAINERS CLOSED. USE ONLY WITH ADEQUATE VENTILATION. WASH HANDS AFTER USE. KEEP AWAY FROM HEAT, SPARKS OR FLAMES.

### 7.2 CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES

VAPORS ARE HEAVIER THAN AIR AND WILL COLLECT IN LOW AREAS. KEEP CONTAINER CLOSED WHEN NOT IN USE. STORE IN TIGHTLY CLOSED AND PROPERLY LABELED CONTAINERS IN COOL, DRY ISOLATED, WELL-VENTILATED AREA AWAY FROM HEAT, SOURCES OF IGNITION AND INCOMPATIBLES. KEEP AT TEMPERATURES HIGHER THAN FREEZING POINT.

EMPTY CONTAINERS MAY CONTAIN PRODUCT RESIDUE. DO NOT REUSE WITHOUT ADEQUATE PRECAUTIONS.

DO NOT EAT, DRINK OR SMOKE IN AREAS OF USE OR STORE.

### 7.3 SPECIFIC END USES

FOLLOW LABEL DIRECTIONS



## Petra Brake Stop Squeak

### 8.- EXPOSURE CONTROLS/PERSONAL PROTECTION

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#### 8.1 CONTROL PARAMETERS

##### EXPOSURE LIMITS

| INGREDIENT    | AEGL 1 | AEGL 2 | AEGL 3 | TWA | STEL   | NIOSH REL  | OSHA PEL  | IDLH |
|---------------|--------|--------|--------|-----|--------|------------|-----------|------|
|               | 60 MIN | 60 MIN | 60 MIN | 8 H | 15 MIN | TWA        | TWA       |      |
|               | PPM    | PPM    | PPM    | PPM | PPM    | 10 H (PPM) | 8 H (PPM) | PPM  |
| BUTANOL       | N/D    | N/D    | N/D    | 20  | N/D    | 50         | 100       | 1400 |
| ISOPROPANOL   | N/D    | N/D    | N/D    | 200 | 400    | 400        | 400       | 2000 |
| PURE GRAPHITE | N/D    | N/D    | N/D    | N/D | N/D    | N/D        | N/D       | N/D  |

#### 8.2 EXPOSURE CONTROLS

**VENTILATION:** USE LOCAL EXHAUST OR DILUTION VENTILATION AS APPROPRIATE TO CONTROL EXPOSURES TO BELOW PERMISSIBLE LIMITS DURING THE USE OF THIS PRODUCT.

**SKIN PROTECTION:** WHERE THE CONTACT IS LIKELY, WEAR CHEMICAL RESISTANT GLOVES, A CHEMICAL SUIT AND RUBBER BOOTS. AVOID SKIN CONTACT WITH THIS MATERIAL.

**EYE PROTECTION:** DO NOT WEAR CONTACT LENSES. WEAR SAFETY GLASSES WITH SIDE SHIELDS OR GOGGLES. HAVE EYE WASHING FACILITIES READILY AVAILABLE WHERE EYE CONTACT CAN OCCUR.

**RESPIRATORY PROTECTION:** NOT NEEDED UNDER NORMAL USE CONDITIONS. A NIOSH APPROVED AIR PURIFYING RESPIRATOR WITH AN APPROPRIATE AN ORGANIC VAPOR CARTRIDGE OR CANISTER MAY BE APPROPRIATE UNDER CERTAIN CIRCUMSTANCES WHERE AIRBORNE CONCENTRATIONS ARE EXPECTED TO EXCEED EXPOSURE LIMITS. PROTECTION PROVIDED BY AIR PURIFYING RESPIRATOR 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 CIRCUMSTANCES WHERE AIR PURIFYING RESPIRATORS MAY NOT PROVIDE ADEQUATE PROTECTION

### 9.- PHYSICAL AND CHEMICAL PROPERTIES

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#### 9.1 INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

|                    |                                      |
|--------------------|--------------------------------------|
| APPEARANCE         | DARK LIQUID WITH SUSPENDED PARTICLES |
| ODOR               | ALCOHOL-LIKE                         |
| OLFATIVE THRESHOLD | N/D                                  |
| PT-CO COLOR        | BLACK/GRAY                           |
| PH                 | N/A                                  |
| MELTING POINT      | N/D                                  |
| EVAPORATION RATE   | N/D                                  |
| SPECIFIC GRAVITY   | 0.808 g/ml                           |
| BOILING POINT      | N/D                                  |
| VISCOSITY @25°C    | < 10 cps                             |



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|                               |          |
|-------------------------------|----------|
| FLASH POINT (CCC)             | 14 °C    |
| PUNTO DE CONGELAMIENTO        | N/D      |
| PRESIÓN DE VAPOR (mmHg)       | 33@20°C  |
| DENSIDAD DE VAPOR             | N/D      |
| COEFICIENTE DE REPARTO        | N/D      |
| TEMPERATURA DE DESCOMPOSICIÓN | N/D      |
| SOLUBILIDAD EN AGUA           | MISCIBLE |

### 9.2 OTHER INFORMATION

NO ADDITIONAL INFORMATION AVAILABLE

## 10.- STABILITY AND REACTIVITY

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**10.1 REACTIVITY:** NO ADDITIONAL INFORMATION AVAILABLE

**10.2 CHEMICAL STABILITY:** THIS PRODUCT IS STABLE UNDER NORMAL STORAGE CONDITIONS.

**10.3 HAZARDOUS POLYMERIZATION:** WILL NOT OCCUR.

**10.4 CONDITIONS TO AVOID:** HEAT, SPARKS, OPEN FLAMES, HOT GLOWING SURFACES OR ELECTRICS ARCS.

**10.5 INCOMPATIBILITY:** AVOID CONTACT WITH STRONG OXIDIZING AGENTS, ACIDS AND BASES.

**10.6 HAZARDOUS DECOMPOSITION PRODUCTS:** COMBUSTION MAY FORM: CARBON DIOXIDE, CARBON MONOXIDE.

## 11.- TOXICOLOGICAL INFORMATION

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### BUTANOL

ORAL LD50 RAT: 790 MG/KG

INHALATION LC50 RAT: 8000 PPM/4H

SKIN LD50 RABBIT: 3400 MG/KG

### ISOPROPANOL

ORAL LD50 RAT MG/KG

ORAL LD50 RABBIT 8.0 G/KG

ORAL LD50 MOUSE 3600 MG/KG

ORAL LD50 DOG 4797 MG/KG

SKIN LD50 RABBIT 12,800 MG/KG

TOXIC ORAL DOSE IN HUMANS IS 0.5 A 1 ML/KG (70% IPA) APPROXIMATELY BUT DEPENDS ON EACH INDIVIDUAL.

### GRAPHITE

NOT AVAILABLE



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### 12.- ECOLOGICAL INFORMATION

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#### 12.1 TOXICITY

##### BUTANOL

LC50 PIMEPHALES PROMELAS (FATHEAD MINNOW) 1730 MG/L/96 HR (95% CONFIDENCE LIMIT 1630-1840 MG/L); AGE 33 DAYS OLD, WATER HARDNESS 47.7 MG/L (CACO3), TEMP 24.7 DEG C, PH 7.64, DISSOLVED OXYGEN 6.3 MG/L, ALKALINITY 45.5 MG/L (CACO3) STATIC BIOASSAY  
LC50 PIMEPHALES PROMELAS (FATHEAD MINNOW) 1950, 1950, 1950, 1950, & 1910 MG/L AT 1, 24, 48, 72, & 96 HR, RESPECTIVELY, AT 18 TO 22 DEG C (STATIC BIOASSAY IN LAKE SUPERIOR WATER)  
LC50 PIMEPHALES PROMELAS (FATHEAD MINNOW) 1940, 1940, 1940, 1940, & 1940 MG/L AT 1, 24, 48, 72, & 96 HR, RESPECTIVELY, AT 18 TO 22 DEG C (STATIC BIOASSAY IN RECONSTITUTED WATER)  
TOXICITY THRESHOLD (CELL MULTIPLICATION INHIBITION TEST) SCENEDESMUS QUADRICAUDA (GREEN ALGAE) 875 MG/L  
TOXICITY THRESHOLD (CELL MULTIPLICATION INHIBITION TEST) MICROCYSTIS AERUGINOSA (ALGAE) 100 MG/L  
TOXIC DOSE CHLORELLA PYRENOIDOSA (ALGAE) 8,500 MG/L  
TOXICITY THRESHOLD (CELL MULTIPLICATION INHIBITION TEST): URONEMA PARDUCZI CHATTON-LWOFF (PROTOZOA) 8.0 MG/L  
TOXICITY THRESHOLD (CELL MULTIPLICATION INHIBITION TEST): ENTOSIPHON SULCATUM (PROTOZOA) 55 MG/L  
EC50 DAPHNIA MAGNA (DAPHNID) 2337 MG/L/24 HR, TOXIC EFFECT: LOST ABILITY TO SWIM  
EC50 DAPHNIA MAGNA (DAPHNID) 1983 MG/L/48 HR, TOXIC EFFECT: LOST ABILITY TO SWIM

##### ISOPROPANOL

LD50 CARASSIUS AURATUS (GOLDFISH) > 5000 MG/L/24 HR MODIFIED ASTM D 1345 BIOASSAY  
LD100 SEMOLITUS ATROMACULATUS (CREEK CHUB) 1100 MG/L/24 HR IN DETROIT RIVER WATER /CONDITIONS OF BIOASSAY NOT SPECIFIED/  
LC50 POECILIA RETICULATA (GUPPIES) 7060 PPM/7 DAY /CONDITIONS OF BIOASSAY NOT SPECIFIED/  
LC50 CRANGON CRANGON (BROWN SHRIMP) 1400 MG/L/48 HR (RANGE 900-1950 MG/L) /CONDITIONS OF BIOASSAY NOT SPECIFIED/  
LC50 CRANGON CRANGON (BROWN SHRIMP) 1150 MG/L/96 HR (RANGE 750-1650 MG/L) /CONDITIONS OF BIOASSAY NOT SPECIFIED/  
LC50 PIMEPHALES PROMELAS (FATHEAD MINNOWS) 11,830 MG/L/1 HR (STATIC BIOASSAY IN LAKE SUPERIOR WATER AT 18-22 DEG C)  
LC50 PIMEPHALES PROMELAS (FATHEAD MINNOWS) 11,160 MG/L/24 HR (STATIC BIOASSAY IN LAKE SUPERIOR WATER AT 18-22 DEG C)  
LC50 PIMEPHALES PROMELAS (FATHEAD MINNOWS) 11,130 MG/L/48 HR, 72 HR, 96 HR, RESPECTIVELY (STATIC BIOASSAY IN LAKE SUPERIOR WATER AT 18-22 DEG C)  
LC50 PIMEPHALES PROMELAS (FATHEAD MINNOWS) 9.64 G/L/96 HR (95% CONFIDENCE LIMIT 9.23-10.0 G/L); AGE 31 DAYS OLD, WATER HARDNESS 48.3 MG/L (CACO3), TEMP 24.4 DEG C, PH 7.79, DISSOLVED OXYGEN 6.6 MG/L, ALKALINITY 45.9 MG/L (CACO3), TANK VOL: 6.3 L, ADDITIONS: 3.75 VOL/DAY (FLOW-THROUGH BIOASSAY)  
LC50 PIMEPHALES PROMELAS (FATHEAD MINNOWS) 10.4 G/L/96 HR (95% CONFIDENCE LIMIT 10.2-10.6 G/L); AGE 29 DAYS OLD, WATER HARDNESS 52.5 MG/L (CACO3), TEMP 24.6 DEG C, PH 7.09, DISSOLVED





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OXYGEN 6.7 MG/L, ALKALINITY 39.5 MG/L (CACO3), TANK VOL: 5.5 L, ADDITIONS: 13.1 VOL/DAY (FLOW-THROUGH BIOASSAY)

LC50 PIMEPHALES PROMELAS (FATHEAD MINNOWS) 6.55 G/L/96 HR (95% CONFIDENCE LIMIT 5.77-7.45 G/L); AGE 31 DAYS OLD, WATER HARDNESS 44.0 MG/L (CACO3), TEMP 24.6 DEG C, PH 7.87, DISSOLVED OXYGEN 6.7 MG/L, ALKALINITY 42.0 MG/L (CACO3), TANK VOL: 1.0 L, ADDITIONS: 36 (FLOW-THROUGH BIOASSAY)

LC50 PIMEPHALES PROMELAS (FATHEAD MINNOWS) 9.54 G/L/96 HR (95% CONFIDENCE LIMIT 9.10-10.0 G/L); AGE 31 DAYS OLD, WATER HARDNESS 48.3 MG/L (CACO3), TEMP 24.4 DEG C, PH 7.79, DISSOLVED OXYGEN 6.6 MG/L, ALKALINITY 45.9 MG/L (CACO3), TANK VOL: 6.3 L, ADDITIONS: 3.75 VOL/DAY (FLOW-THROUGH BIOASSAY)

LC50 PIMEPHALES PROMELAS (FATHEAD MINNOWS) 6.12 G/L/96 HR (95% CONFIDENCE LIMIT 5.58-6.72 G/L); AGE 31 DAYS OLD, WATER HARDNESS 44.0 MG/L (CACO3), TEMP 24.6 DEG C, PH 7.87, DISSOLVED OXYGEN 6.7 MG/L, ALKALINITY 42.0 MG/L (CACO3), TANK VOL: 1.0 L, ADDITIONS: 36 VOL/DAY (FLOW-THROUGH BIOASSAY)

LC50 PIMEPHALES PROMELAS (FATHEAD MINNOWS) 9.49 G/L/96 HR (95% CONFIDENCE LIMIT 8.91-10.1 G/L); AGE 29 DAYS OLD, WATER HARDNESS 52.5 MG/L (CACO3), TEMP 24.4 DEG C, PH 7.09, DISSOLVED OXYGEN 6.7 MG/L, ALKALINITY 39.5 MG/L (CACO3), TANK VOL: 5.5 L, ADDITIONS: 13.1 VOL/DAY (FLOW-THROUGH BIOASSAY)

#### GRAPHITE

NOT AVAILABLE

#### 12.2 PERSISTENCE AND BIODEGRADABILITY

##### BUTANOL

TERRESTRIAL FATE: BASED ON A CLASSIFICATION SCHEME, AN ESTIMATED KOC VALUE OF 72(SRC), DETERMINED FROM A LOG KOW OF 0.88 AND A REGRESSION-DERIVED EQUATION, INDICATES THAT N-BUTYL ALCOHOL IS EXPECTED TO HAVE HIGH MOBILITY IN SOIL(SRC). VOLATILIZATION OF N-BUTYL ALCOHOL FROM MOIST SOIL SURFACES IS EXPECTED TO BE AN IMPORTANT FATE PROCESS(SRC) GIVEN A HENRY'S LAW CONSTANT OF  $8.8 \times 10^{-6}$  ATM-CU M/MOLE. THE POTENTIAL FOR VOLATILIZATION OF N-BUTYL ALCOHOL FROM DRY SOIL SURFACES MAY EXIST BASED UPON A VAPOR PRESSURE OF 7 MM HG. THE BIODEGRADATION HALF-LIFE OF N-BUTYL ALCOHOL IN A SUB-SURFACE SOIL FROM BLACKSBURG, VA WAS APPROXIMATELY 7 DAYS.

AQUATIC FATE: BASED ON A CLASSIFICATION SCHEME, AN ESTIMATED KOC VALUE OF 72(SRC), DETERMINED FROM A LOG KOW OF 0.88 AND A REGRESSION-DERIVED EQUATION, INDICATES THAT N-BUTYL ALCOHOL IS NOT EXPECTED TO ADSORB TO SUSPENDED SOLIDS AND SEDIMENT IN WATER(SRC). VOLATILIZATION FROM WATER SURFACES IS EXPECTED TO BE AN IMPORTANT FATE PROCESS BASED UPON A HENRY'S LAW CONSTANT OF  $8.8 \times 10^{-6}$  ATM-CU M/MOLE. USING THIS HENRY'S LAW CONSTANT AND AN ESTIMATION METHOD, VOLATILIZATION HALF-LIVES FOR A MODEL RIVER AND MODEL LAKE ARE 2 AND 29, DAYS RESPECTIVELY(SRC). ACCORDING TO A CLASSIFICATION SCHEME, AN ESTIMATED BCF OF 3(SRC), FROM ITS LOG KOW AND A REGRESSION-DERIVED EQUATION, SUGGESTS THE POTENTIAL FOR BIOCONCENTRATION IN AQUATIC ORGANISMS IS LOW. IN A RIVER DIE-AWAY TEST, N-BUTYL ALCOHOL ACHIEVED 33% OF ITS THEORETICAL BOD IN 5 DAYS, SUGGESTING BIODEGRADATION WILL BE AN IMPORTANT FATE PROCESS IN WATER(SRC).

ATMOSPHERIC FATE: ACCORDING TO A MODEL OF GAS/PARTICLE PARTITIONING OF SEMIVOLATILE ORGANIC COMPOUNDS IN THE ATMOSPHERE, N-BUTYL ALCOHOL, WHICH HAS A VAPOR PRESSURE OF 7 MM HG AT 25 DEG C, IS EXPECTED TO EXIST SOLELY AS A VAPOR IN THE AMBIENT ATMOSPHERE. VAPOR-PHASE N-BUTYL ALCOHOL IS DEGRADED IN THE ATMOSPHERE BY REACTION WITH PHOTOCHEMICALLY-PRODUCED HYDROXYL RADICALS(SRC). THE HALF-LIFE FOR THE REACTION IN



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AIR WITH HYDROXYL RADICALS IS ESTIMATED TO BE 46 HOURS(SRC), CALCULATED FROM ITS RATE CONSTANT OF  $8.3 \times 10^{-12}$  CU CM/MOLECULE-SEC AT 25 DEG C.

### ISOPROPANOL

TERRESTRIAL FATE: BASED ON A CLASSIFICATION SCHEME, AN ESTIMATED KOC VALUE OF 25(SRC), DETERMINED FROM A LOG KOW OF 0.05 AND A REGRESSION-DERIVED EQUATION, INDICATES THAT ISOPROPANOL IS EXPECTED TO HAVE VERY HIGH MOBILITY IN SOIL(SRC). VOLATILIZATION OF ISOPROPANOL FROM MOIST SOIL SURFACES IS EXPECTED TO BE AN IMPORTANT FATE PROCESS(SRC) GIVEN A HENRY'S LAW CONSTANT OF  $8.10 \times 10^{-6}$  ATM-CU M/MOLE. THE POTENTIAL FOR VOLATILIZATION OF ISOPROPANOL FROM DRY SOIL SURFACES MAY EXIST(SRC) BASED UPON A VAPOR PRESSURE OF 45.4 MM HG. ISOPROPANOL IS READILY DEGRADED IN AEROBIC SYSTEMS; THE RANGE OF HALF-LIVES FOR AEROBIC DEGRADATION USING A SEWAGE SLUDGE INOCULUM ARE <1 DAY TO 48 DAYS(SRC). ISOPROPANOL HAS ALSO BEEN SHOWN TO BE READILY DEGRADED UNDER ANAEROBIC CONDITIONS.

AQUATIC FATE: BASED ON A CLASSIFICATION SCHEME, AN ESTIMATED KOC VALUE OF 25(SRC), DETERMINED FROM A LOG KOW OF 0.05 AND A REGRESSION-DERIVED EQUATION, INDICATES THAT ISOPROPANOL IS NOT EXPECTED TO ADSORB TO SUSPENDED SOLIDS AND SEDIMENT(SRC). VOLATILIZATION FROM WATER SURFACES IS EXPECTED BASED UPON A HENRY'S LAW CONSTANT OF  $8.10 \times 10^{-6}$  ATM-CU M/MOLE. USING THIS HENRY'S LAW CONSTANT AND AN ESTIMATION METHOD, VOLATILIZATION HALF-LIVES FOR A MODEL RIVER AND MODEL LAKE ARE 57 HOURS AND 29 DAYS, RESPECTIVELY(SRC). ACCORDING TO A CLASSIFICATION SCHEME, AN ESTIMATED BCF OF 3(SRC), FROM A LOG KOW AND A REGRESSION-DERIVED EQUATION(6), SUGGESTS THE POTENTIAL FOR BIOCONCENTRATION IN AQUATIC ORGANISMS IS LOW(SRC). ISOPROPANOL IS READILY DEGRADED IN AEROBIC SYSTEMS; THE RANGE OF HALF-LIVES FOR AEROBIC DEGRADATION USING A SEWAGE SLUDGE INOCULUM ARE <1 DAY TO 48 DAYS(SRC). ISOPROPANOL HAS ALSO BEEN SHOWN TO BE READILY DEGRADED UNDER ANAEROBIC CONDITIONS.

ATMOSPHERIC FATE: ACCORDING TO A MODEL OF GAS/PARTICLE PARTITIONING OF SEMIVOLATILE ORGANIC COMPOUNDS IN THE ATMOSPHERE, ISOPROPANOL, WHICH HAS A VAPOR PRESSURE OF 45.4 MM HG AT 25 DEG C, IS EXPECTED TO EXIST SOLELY AS A VAPOR IN THE AMBIENT ATMOSPHERE(SRC). VAPOR-PHASE ISOPROPANOL IS DEGRADED IN THE ATMOSPHERE BY REACTION WITH PHOTOCHEMICALLY-PRODUCED HYDROXYL RADICALS(SRC); THE HALF-LIFE FOR THIS REACTION IN AIR IS ESTIMATED TO BE 3.2 DAYS(SRC), CALCULATED FROM ITS RATE CONSTANT OF  $5.07 \times 10^{-12}$  CU CM/MOLECULE-SEC AT 25 DEG C.

### 12.3 BIOACCUMULATIVE POTENTIAL

SEE 12.1

### 12.4 MOBILITY IN SOIL

### BUTANOL

THE KOC OF N-BUTYL ALCOHOL IS ESTIMATED AS 72(SRC), USING A LOG KOW OF 0.88 AND A REGRESSION-DERIVED EQUATION. ACCORDING TO A CLASSIFICATION SCHEME, THIS ESTIMATED KOC VALUE SUGGESTS THAT N-BUTYL ALCOHOL IS EXPECTED TO HAVE HIGH MOBILITY IN SOIL(SRC).

### ISOPROPANOL

THE KOC OF ISOPROPANOL IS ESTIMATED AS 25(SRC), USING A MEASURED LOG KOW OF 0.05 AND A



## Petra Brake Stop Squeak

REGRESSION-DERIVED EQUATION. ACCORDING TO A CLASSIFICATION SCHEME, THIS ESTIMATED KOC VALUE SUGGESTS THAT ISOPROPANOL IS EXPECTED TO HAVE VERY HIGH MOBILITY IN SOIL(SRC).

**GRAPHITE**  
NOT AVAILABLE

### 13.- DISPOSAL CONSIDERATIONS

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SPECIAL CARE MUST BE TAKEN WHEN THE CHEMICAL MATERIAL IS USED AND DISPOSED OFF, JUST AS ITS CONTAINERS TO PREVENT ENVIRONMENT POLLUTION. THE RESIDUES CAN BE ELIMINATED BY FILTRATION AND THEN SPRAY INCINERATION:

FLUID BED, 450-980 °C WITH RESIDENCE TIME OF SECONDS FOR GASES AND LIQUIDS.

ROTATIVE OVEN, 820-1600 °C WITH RESIDENCE TIME OF SECONDS FOR GASES AND LIQUIDS.

LIQUID INJECTION, 650-1600 °C WITH RESIDENCE TIME OF 0.1-2 SECONDS.

### 14.- TRANSPORT INFORMATION

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Secretaría de Comunicaciones y transportes (SCT) – NOM-002-SCT2/1994 (México)

Información general para la transportación de embarques.

Shipping name: Líquido inflamable, nos (Contiene isopropanol) (Can be transported as Limited Quantity)

UN Number: 1993  
Class/Division: 3  
Packing Group: II  
Label: see section 2.  
Limited Quantity: 5 L

CANT. LTDA.

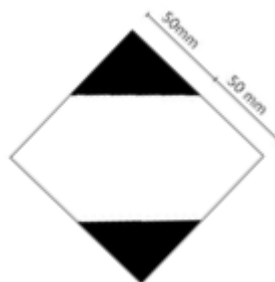


Fig. 1 Signal for containers with limited quantities.



# SDS

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According to NOM-011-SCT2/2012: 5.11 It is not necessary that containers/packages with hazardous substances or materials in limited quantities, have the Official Transport Name or UN number but must have the signal in Fig. 1. This signal must be clearly visible, legible and must be capable of withstanding weather exposure without suffering any degradation.

#### U.S. Department of Transportation (DOT) 49 – CFR 172

##### General Transportation Information for Bulk Shipments

Shipping name: Liquid, flammable, n.o.s. (Limited Quantity can be used for flammable liquids not exceeding 5 L capacity)

UN/NA Number: UN 1993

Class/Division: 3

Packing Group: II

Label: see Section 2

Limited Quantity: 5 L per container

Special information (PHMSA): This product may be classified as LTD. QTY. when transported in quantities equal to or less than 5 L per container and 30 Kg per package, but must have the signal LIMITED QUANTITY (LIMITED QUANTITY).

LTD. QTY.



Signal for containers with limited quantities

#### International Maritime Dangerous Goods (IMDG) CODE General Transportation Information for Shipments

Shipping name: Liquid, flammable, n.o.s. (Limited Quantity can be used for flammable liquids not exceeding 5 L capacity)

UN/NA Number: UN 1993

Class/Division: 3

Packing Group: II

Label: see Section 2

Limited Quantity: 5 L per container

It can be classified as LIMITED QUANTITY for maritime transportation according to IMDG CODE, 3.2 COLUMN 7. According to the 35 ammendment of the same code, the following signal must be used for limited quantities transportation.

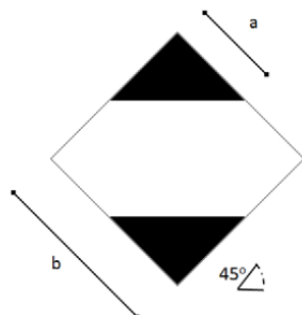


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LTD. QTY.



b = 100 mm

a = 50 mm

For packages not able to accommodate 100 mm mark, then

b ≥ 50mm

a = 1/2b

Mark must be placed at a 45° angle

Line must be black with minimum 2 mm thickness

Top and bottom shaded areas must be black

Center section may be white or same color as corrugate

Text of other marks inside the diamond are not permitted

### 15.- REGULATORY INFORMATION

| OCCUPATIONAL EXPOSURE LEVELS | BUTANOL  | ISOPROPANOL  | GRAPHITE      |
|------------------------------|--|--|---------------|
| AUSTRALIA                    | STEL 50 ppm (152 mg/m <sup>3</sup> ), JUL2008  | TWA 50 ppm (205 mg/m <sup>3</sup> ), STEL 75 ppm (307 mg/m <sup>3</sup> ), JUL2008 | NOT AVAILABLE |
| BELGIUM                      | TWA 50 ppm (154 mg/m <sup>3</sup> ), Skin, MAR2002                                       | TWA 20 ppm (83 mg/m <sup>3</sup> ),  | NOT AVAILABLE |
|                              | STEL 50 ppm (150 mg/m <sup>3</sup> ), OCT 2002   | STEL 50 ppm (208 mg/m <sup>3</sup> ), MAR2002                                      | NOT AVAILABLE |
| DENMARK                      | STEL 50 ppm (150 mg/m <sup>3</sup> ), OCT 2002   | TWA 20 ppm (83 mg/m <sup>3</sup> ), OCT 2002                                       | NOT AVAILABLE |
| EU                           | NOT AVAILABLE  | TWA 83 mg/m <sup>3</sup> (20 ppm);   | NOT AVAILABLE |
|                              | NOT AVAILABLE  | STEL 208 mg/m <sup>3</sup> (50 ppm), FEB 2006                                      | NOT AVAILABLE |
| FINLAND                      | TWA 50 ppm (150 mg/m <sup>3</sup> ), STEL 75 ppm (225 mg/m <sup>3</sup> ), Skin, JAN1999 | NOT AVAILABLE  | NOT AVAILABLE |



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|                    |  |  |               |
|--------------------|--|--|---------------|
| <b>FRANCE</b>      | VLE 50 ppm (150 mg/m <sup>3</sup> ), FEB2006                         | VME 20 ppm (83 mg/m <sup>3</sup> ), VLE 50 ppm (208 mg/m <sup>3</sup> ), FEB2006 | NOT AVAILABLE |
| <b>GERMANY</b>     | MAK 310 mg/m <sup>3</sup> (100 mL/m <sup>3</sup> ), 2005             | MAK 83 mg/m <sup>3</sup> (20 mL/m <sup>3</sup> ), 2005                           | NOT AVAILABLE |
| <b>HUNGARY</b>     | TWA 45 mg/m <sup>3</sup> , STEL 90 mg/m <sup>3</sup> , Skin, SEP2000 | TWA 83 mg/m <sup>3</sup> , STEL 208 mg/m <sup>3</sup> , SEP2000                  | NOT AVAILABLE |
| <b>JAPAN</b>       | OEL-continuous 50 ppm (150 mg/m <sup>3</sup> ), skin, APR2007        | OEL 50 ppm (200 mg/m <sup>3</sup> ), APR2007                                     | NOT AVAILABLE |
| <b>KOREA</b>       | STEL 50 ppm (150 mg/m <sup>3</sup> ), 2006                           | TWA 50 ppm (205 mg/m <sup>3</sup> ), STEL 75 ppm (300 mg/m <sup>3</sup> ), 2006  | NOT AVAILABLE |
| <b>MEXICO</b>      | peak 50 ppm (150 mg/m <sup>3</sup> ) (skin), 2004                    | TWA 50 ppm (205 mg/m <sup>3</sup> ), 2004  | NOT AVAILABLE |
|                    | NOT AVAILABLE  | TWA 75 ppm (307 mg/m <sup>3</sup> ), 2004  | NOT AVAILABLE |
| <b>NETHERLANDS</b> | NOT AVAILABLE  | MAC-TGG 104 mg/m <sup>3</sup> , 2003   | NOT AVAILABLE |
| <b>NEW ZELAND</b>  | NOT AVAILABLE  | TWA 50 ppm (205 mg/m <sup>3</sup> );   | NOT AVAILABLE |
|                    | STEL 50 ppm (150 mg/m <sup>3</sup> ), skin, JAN2002                  | STEL 75 ppm (307 mg/m <sup>3</sup> ), JAN2002                                    | NOT AVAILABLE |



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|                    |   |  |               |
|--------------------|---|--|---------------|
| <b>FILIPINES</b>   | TWA 100 ppm (300 mg/m <sup>3</sup> ), JAN1993                   | NOT AVAILABLE  | NOT AVAILABLE |
| <b>POLAND</b>      | TWA 50 mg/m <sup>3</sup> , STEL 140 mg/m <sup>3</sup> , JAN1999 | MAC(TWA) 200 mg/m <sup>3</sup> , MAC(STEL) 300 mg/m <sup>3</sup> , JAN1999 | NOT AVAILABLE |
| <b>RUSSIA</b>      | TWA 10 mg/m <sup>3</sup> , STEL 30 mg/m <sup>3</sup> , JUN2003  | STEL 5 mg/m <sup>3</sup> , SKIN, JUN2003                                   | NOT AVAILABLE |
| <b>SWEDEN</b>      | TWA 15 ppm (45 mg/m <sup>3</sup> ),                             | TWA 25 ppm (100 mg/m <sup>3</sup> );                                       | NOT AVAILABLE |
|                    | STEL 30 ppm (90 mg/m <sup>3</sup> ), Skin, JUN2005              | STEL 50 ppm (200 mg/m <sup>3</sup> ), JUN2005                              | NOT AVAILABLE |
| <b>SWITZERLAND</b> | MAK- week 50 ppm (150 mg/m <sup>3</sup> );                      | MAK- week 20 ppm (82 mg/m <sup>3</sup> ),                                  | NOT AVAILABLE |
|                    | KZG- week 50 ppm (150 mg/m <sup>3</sup> ), DEC2006              | KZG- week 40 ppm (164 mg/m <sup>3</sup> ), SKIN, DEC2006                   | NOT AVAILABLE |
| <b>THAILAND</b>    | NOT AVAILABLE   | NOT AVAILABLE  | NOT AVAILABLE |
| <b>TURLEY</b>      | TWA 100 ppm (300 mg/m <sup>3</sup> ), JAN1993                   | NOT AVAILABLE  | NOT AVAILABLE |



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|                   |   |   |                  |
|-------------------|---|---|------------------|
| UNITED<br>KINGDOM | NOT<br>AVAILABLE  | TWA 50 ppm (208<br>mg/m <sup>3</sup> ); | NOT<br>AVAILABLE |
|                   | STEL 50 ppm<br>(154 mg/m <sup>3</sup> )<br>(skin), 2005 | STEL 100 ppm<br>(SKIN), 2005            | NOT<br>AVAILABLE |

## 16. OTHER INFORMATION

### NFPA CLASSIFICATION

HEALTH HAZARD: 1

FIRE: 3

REACTIVITY HAZARD: 0

### ABBREVIATURES AND ACRONYMS

#### AEGL'S ACCUTE EXPOSURE GUIDELINE LIMITS

**AEGL-1** IS THE AIRBORNE CONCENTRATION, EXPRESSED AS PARTS PER MILLION OR MILLIGRAMS PER CUBIC METER (PPM OR MG/M3) OF A SUBSTANCE ABOVE WHICH IT IS PREDICTED THAT THE GENERAL POPULATION, INCLUDING SUSCEPTIBLE INDIVIDUALS, COULD EXPERIENCE NOTABLE DISCOMFORT, IRRITATION, OR CERTAIN ASYMPTOMATIC NONSENSORY EFFECTS. HOWEVER, THE EFFECTS ARE NOT DISABLING AND ARE TRANSIENT AND REVERSIBLE UPON CESSATION OF EXPOSURE.  
**AEGL-2** IS THE AIRBORNE CONCENTRATION (EXPRESSED AS PPM OR MG/M3) OF A SUBSTANCE ABOVE WHICH IT IS PREDICTED THAT THE GENERAL POPULATION, INCLUDING SUSCEPTIBLE INDIVIDUALS, COULD EXPERIENCE IRREVERSIBLE OR OTHER SERIOUS, LONG-LASTING ADVERSE HEALTH EFFECTS OR AN IMPAIRED ABILITY TO ESCAPE.  
**AEGL-3** IS THE AIRBORNE CONCENTRATION (EXPRESSED AS PPM OR MG/M3) OF A SUBSTANCE ABOVE WHICH IT IS PREDICTED THAT THE GENERAL POPULATION, INCLUDING SUSCEPTIBLE INDIVIDUALS, COULD EXPERIENCE LIFE-THREATENING HEALTH EFFECTS OR DEATH.

**TWA** TIME WEIGHED AVERAGE;

**STEL** SHORT TERM EXPOUSRE LIMIT;

**NIOSH** NATIONAL INSTITUTE FOR OCCUPATIONAL SAFETY AND HEALTH

**REL** RECOMMENDED EXPOSURE LIMIT;

**OSHA** OCCUPATIONAL SAFETY & HEALTH ADMINISTRATION

**PEL** PERMISSIBLE EXPOSURE LIMIT

**IDLH** IMMEDIATE DOSE LETHAL TO HUMANS;

**GHS** GLOBAL HARMONIZING SYSTEM

**N/D** NOT DETERMINED

**N/A** NOT APPLICABLE





S D S

Safety Data Sheet

## Petra Brake Stop Squeak

### REFERENCES

*NIOSH POCKET GUIDE*

*EUROPEAN CHEMICAL EDADNCY*

*WIRELESS INFORMATION SYSTEM FOR EMERGENCY RESPONDERS, NATIONAL LIBRARY OF MEDICINE*

*POISINDEX® Y MEDITEXT® (THIS DATA BASES MUST BE CONSULTED POR ASSISTENCE IN CASE OF DIAGNOSTIC OR TREATMENT FOR SPECIFIC CASES)*

*CAMEO CHEMICALS DATABASE OF HAZARDOUS MATERIALS*

*OAK RIDGE INSTITUTE FOR SCIENCE AND EDUCATION WEBPEDAD*

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