

Ten Ring Precision, Inc.  
1449 Blue Crest Lane  
San Antonio TX 78232  
USA  
210-494-3063

**PRODUCT: 2089-10-069A TEN RING CLEANER DEGREASER 15OZ(50%VOC)**

**Section 01: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION**

MANUFACTURER ..... MANUFACTURED FOR:  
TEN RING PRECISION, INC.  
1449 BLUE CRESCENT LANE  
SAN ANTONIO TX 78232  
USA  
210-494-3063

PRODUCT NAME..... 2089-10-069A TEN RING CLEANER DEGREASER 15OZ(50%VOC)  
CHEMICAL FAMILY..... HYDROCARBONS.  
MOLECULAR WEIGHT..... NOT APPLICABLE.  
CHEMICAL FORMULA..... NOT APPLICABLE.  
TRADE NAMES & SYNONYMS..... 2089-10-069A TEN RING CLEANER DEGREASER 15OZ(50%VOC)  
PRODUCT USES..... DEGREASER/CLEANER.  
FORMULA/LAB BOOK #..... F 10-069A/003-4-120.

**Section 02: COMPOSITION/INFORMATION INGREDIENTS**

Hazardous Ingredients	%	Exposure Limit	C.A.S.#	LD/50, Route,Species	LC/50 Route,Species
ACETONE	30-60	750 ppm	67-64-1	>9750 mg/kg ORAL - RAT	>16,000 ppm (4 hr) INHAL - RAT
HEXANE	10-30	50 ppm	110-54-3	25,000 mg/kg ORAL-RAT	48,000 mg/kg INHAL-MOUSE
NAPHTHA (PETROLEUM), LIGHT ALKYLATE	1-5	400 ppm	64741-66-8	NOT AVAILABLE	NOT AVAILABLE
TOLUENE	1-5	50 ppm	108-88-3	5000 mg/kg ORAL - RAT	8000 ppm (4 hr) INHAL - RAT
ISOPROPANOL	1-5	400 ppm	67-63-0	>4720 mg/kg ORAL - RAT	12000 ppm (8hr) INHAL - RAT
ISOBUTANE	10-30	1000 ppm	75-28-5	NOT APPLICABLE	142,500 ppm (4h) INHAL - RAT
PROPANE	3-7	1000 ppm	74-98-6	>5000 mg/kg DERMAL-RABBITS	NOT AVAILABLE

**Section 03: HAZARDS IDENTIFICATION**

ROUTE OF ENTRY:  
INGESTION..... MAY CAUSE HEADACHE, NAUSEA, VOMITING AND WEAKNESS.  
INHALATION..... INHALATION OF SOLVENTS MAY CAUSE IRRITATION. PROPELLANT IS A SIMPLE ASPHYXIANT.

EYE CONTACT..... MAY CAUSE IRRITATION.  
SKIN ABSORPTION..... MAY BE ABSORBED BY THE SKIN.  
SKIN CONTACT..... MAY CAUSE IRRITATION.

EFFECTS OF ACUTE EXPOSURE..... DIZZINESS, NAUSEA. IRRITATION TO SKIN & EYES.  
EFFECTS OF CHRONIC EXPOSURE..... SOLVENTS MAY CAUSE DEFATTING DERMATITIS  
EXPOSURE LIMIT OF MATERIAL..... SEE SECTION 2.

**Section 04: FIRST AID MEASURES**

EMERGENCY FIRST AID PROCEDURE ..... IF IN CONTACT WITH EYES, FLUSH WITH WATER FOR AT LEAST 15 MINUTES. CONTACT A PHYSICIAN IMMEDIATELY. IF IN CONTACT WITH THE SKIN, WASH WELL WITH WATER. IF INGESTED, DRINK LARGE VOLUMES OF MILK OR WATER. DO NOT INDUCE VOMITING. CONTACT A PHYSICIAN IMMEDIATELY. IF BREATHING DIFFICULTY OCCURS, MOVE TO FRESH AIR.

**Section 05: FIRE FIGHTING MEASURES**

AUTO IGNITION TEMPERATURE (°C)..... 225-465.  
SPECIAL PROCEDURES..... WATER FROM FOGGING NOZZLES MAY BE USED TO COOL CLOSED CONTAINERS TO PREVENT BUILD-UP IF EXPOSED TO EXTREME TEMPERATURES. FULL PROTECTIVE EQUIPMENT INCLUDING SELF CONTAINED BREATHING APPARTATUS SHOULD BE WORN IN A FIRE INVOLVING THIS MATERIAL.

FLAMMABILITY..... EXTREMELY FLAMMABLE.  
IF YES, UNDER WHICH CONDITIONS?..... EXCESSIVE HEAT, SPARKS AND OPEN FLAME.  
EXTINGUISHING MEDIA..... WATER, CARBON DIOXIDE, DRY CHEMICAL, FOAM.  
UPPER FLAMMABLE LIMIT..... 12.8.  
(% BY VOLUME)  
LOWER FLAMMABLE LIMIT..... 1.

**PRODUCT: 2089-10-069A TEN RING CLEANER DEGREASER 15OZ(50%VOC)****Section 05: FIRE FIGHTING MEASURES**

(% BY VOLUME)  
 EXPLOSION DATA  
 SENSITIVITY TO STATIC DISCHARGE..... NOT APPLICABLE.  
 SENSITIVITY TO IMPACT..... NOT APPLICABLE.  
 HAZARDOUS COMBUSTION PRODUCTS..... HYDROCARBON FUMES AND SMOKE. CARBON MONOXIDE WHERE COMBUSTION IS INCOMPLETE.  
 AEROSOL FLAME PROJECTION CLASSIFIED AS:..... >100cm.  
 FLASHBACK..... YES.  
 FLASH POINT(°C),TAG CLOSED-CUP ..... LOWEST KNOWN VALUE IS HEXANE @ -23C.  
 (CONCENTRATE)

**Section 06: ACCIDENTAL RELEASE MEASURES**

LEAK/SPILL..... REMOVE ALL SOURCES OF IGNITION. USE AN INERT ABSORBENT MATERIAL, AND NON-SPARKING TOOLS. VENTILATE AREA. PREVENT FROM ENTERING A WATERCOURSE.

**Section 07: HANDLING AND STORAGE**

STORAGE NEEDS..... KEEP AWAY FROM HEAT, SPARKS, AND OPEN FLAMES.  
 ENGINEERING CONTROLS..... VENTILATION - LOCAL (MECHANICAL IF USED INDOORS ON A CONTINUOUS BASIS).  
 HANDLING PROCEDURES AND EQUIPMENT..... STORE IN A COOL, WELL VENTILATED AREA NOT TO EXCEED 50 DEG C.  
 SYNERGISTIC MATERIALS..... NONE KNOWN.

**Section 08: EXPOSURE CONTROLS/PERSONAL PROTECTION**

GLOVES/ TYPE..... WEAR CHEMICAL RESISTANT GLOVES.  
 RESPIRATORY/TYPE..... IF USED INDOORS ON A CONTINUOUS BASIS, USE OF A CARTRIDGE TYPE RESPIRATOR (NIOSH/MSHATC 23C OR EQUIVALENT) IS RECOMMENDED.  
 EYE/TYPE..... SAFETY GLASSES.  
 FOOTWEAR/TYPE..... NOT NORMALLY REQUIRED.  
 OTHER/TYPE..... NOT REQUIRED.

**Section 09: PHYSICAL AND CHEMICAL PROPERTIES**

PHYSICAL STATE..... AEROSOL.  
 APPEARANCE..... CLEAR, COLOURLESS.  
 ODOR..... SOLVENT ODOR.  
 ODOR THRESHOLD..... NOT AVAILABLE.  
 VAPOUR PRESSURE(PSIG)-AEROSOL..... 42-52.  
 @ 20 C  
 BOILING POINT (°C)(CONC)..... 57-111.  
 EVAPORATION RATE..... GREATER THAN 1.  
 n-BUTYL ACETATE = 1  
 VAPOUR DENSITY (AIR=1)..... GREATER THAN 1.  
 (BY WEIGHT)  
 SOLUBILITY IN WATER g/L (20°C)..... NEGLIGIBLE.  
 pH..... NOT APPLICABLE.  
 SPECIFIC GRAVITY (LIQUID)..... 0.75-0.79.  
 COEFFICIENT OF WATER/OIL DIST..... NOT AVAILABLE.  
 FREEZING POINT: (°C)..... NOT AVAILABLE.  
 AEROSOL PERCENT VOLATILE..... 100.  
 (BY WEIGHT).  
 SPECIFIC GRAVITY (AEROSOL)..... 0.67-0.71.

**Section 10: STABILITY AND REACTIVITY**

HAZARDOUS PRODUCTS OF DECOMPOSITION..... HYDROCARBON FUMES AND SMOKE. CARBON MONOXIDE WHERE COMBUSTION IS INCOMPLETE.  
 CHEMICAL STABILITY:  
 YES..... UNDER NORMAL CONDITIONS.  
 NO, WHICH CONDITIONS?..... NOT APPLICABLE.  
 COMPATIBILITY WITH OTHER SUBSTANCES:  
 NO, WHICH ONES?..... STRONG OXIDIZING AGENTS.  
 REACTIVITY CONDITIONS?..... NOT APPLICABLE.  
 HAZARDOUS POLYMERIZATION..... WILL NOT OCCUR.

**Section 11: TOXICOLOGICAL INFORMATION**

REPRODUCTIVE EFFECTS..... N-HEXANE- EXCESS EXPOSURE CAN RESULT IN PERIPHERAL NEUROPATHIES. THE INITIAL SYMPTOMS ARE SYMMETRICAL SENSORY NUMBNESS AND PARESTHESIAS OF DISTAL PORTIONS OF THE EXTREMITIES. MOTOR WEAKNESS IS TYPICALLY OBSERVED IN MUSCLES OF THE TOES AND FINGERS BUT MAY ALSO INVOLVE MUSCLES OF THE ARMS, THIGHS AND FOREARMS. THE ONSET OF THESE SYMPTOMS MAY BE DELAYED FOR SEVERAL MONTHS TO A YEAR AFTER THE BEGINNING OF EXPOSURE. THE NEUROTOXIC PROPERTIES OF N-HEXANE ARE POTENTIATED BY EXPOSURE TO METHYL ETHYL KETONE AND METHYL ISOBUTYL KETONE. PROLONGED EXPOSURE TO HIGH CONCENTRATIONS OF

**PRODUCT: 2089-10-069A TEN RING CLEANER DEGREASER 15OZ(50%VOC)****Section 11: TOXICOLOGICAL INFORMATION**

REPRODUCTIVE EFFECTS..... N-HEXANE (>1,000 ppm) HAS RESULTED IN DECREASED SPERM COUNT AND DEGENERATIVE CHANGES IN THE TESTES OF RATS BUT NOT THOSE OF MICE. TOLUENE - PROLONGED AND REPEATED EXPOSURE OF PREGNANT ANIMALS TO TOLUENE (LEVELS GREATER THAN APPROXIMATELY 1500 ppm) HAS BEEN REPORTED TO CAUSE ADVERSE FETAL DEVELOPMENTAL EFFECTS.

IRRITANCY OF MATERIAL..... SKIN/EYE IRRITANT.

CARCINOGENICITY OF MATERIAL..... NONE KNOWN.

SENSITIZING CAPABILITY OF MATERIAL..... UNKNOWN.

MUTAGENICITY..... NONE KNOWN.

TERATOGENICITY..... NO INFORMATION IS AVAILABLE AND NO ADVERSE TERATOGENIC EFFECTS ARE ANTICIPATED.

**Section 12: ECOLOGICAL CONSIDERATIONS**

ENVIRONMENTAL..... NOT AVAILABLE.

**Section 13: DISPOSAL CONSIDERATIONS**

WASTE DISPOSAL..... DO NOT PUNCTURE OR INCINERATE CONTAINERS, EVEN WHEN EMPTY. DISPOSE OF IN ACCORDANCE WITH LOCAL, PROVINCIAL AND FEDERAL REGULATIONS.

**Section 14: TRANSPORTATION INFORMATION**

D.O.T. CLASSIFICATION..... CONSUMER COMMODITY, ORM-D.

T.D.G. CLASSIFICATION..... CONSUMER COMMODITY (AEROSOLS, UN1950, CLASS 2.1).

**Section 15: REGULATORY INFORMATION****CANADIAN REGULATIONS:**

WHMIS CLASSIFICATION..... A,B5,D2A,D2B.

CNFC SECTION 3.3.5..... LEVEL 3.

CEPA (Canadian Environmental Protection Act) ALL SUBSTANCES IN THIS PRODUCT ARE LISTED ON THE CANADIAN DOMESTIC SUBSTANCES LIST (DSL) OR ARE NOT REQUIRED TO BE LISTED.

**U.S. REGULATIONS:**

HMIS RATING HEALTH..... 1 SLIGHT HAZARD.

HMIS RATING FLAMMABILITY..... 4 SEVERE HAZARD.

HMIS RATING REACTIVITY..... 0 MINIMAL HAZARD.

HMIS RATING PERSONAL PROTECTION..... B.

NFPA CODE 30B..... LEVEL 3.

SARA 313 INFORMATION:..... 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:

CAS #:	CHEMICAL NAME:
*108-88-3	TOLUENE
*110-54-3	N-HEXANE

CALIFORNIA PROPOSITION 65:..... THE FOLLOWING STATEMENT IS MADE IN ORDER TO COMPLY WITH THE CALIFORNIA SAFE DRINKING WATER AND TOXIC ENFORCEMENT ACT OF 1986:  
WARNING: THIS PRODUCT CONTAINS A CHEMICAL KNOWN TO THE STATE OF CALIFORNIA TO CAUSE BIRTH DEFECTS OR OTHER REPRODUCTIVE HARM.

CAS #:	CHEMICAL NAME:
*108-88-3	TOLUENE

TSCA (Toxic Substances Control Act)..... ALL COMPONENT OF THIS PRODUCT ARE LISTED ON THE TSCA INVENTORY. ANY IMPURITIES PRESENT IN THIS PRODUCT ARE EXEMPT FROM LISTING.

VOC (w/w%)..... 50.

**Section 16: OTHER INFORMATION**

NOTICE FROM TEN RING PRECISION, INC ..... THE INFORMATION ON THIS MATERIAL SAFETY DATA SHEET IS PROVIDED BY TEN RING PRECISION, INC. FREE OF CHARGE. WHILE BELIEVED TO BE RELIABLE, IT IS INTENDED FOR USE BY SKILLED PERSONS AT THEIR OWN RISK. TEN RING PRECISION, INC. ASSUMES NO RESPONSIBILITY FOR EVENTS RESULTING OR DAMAGES INCURRED FROM ITS USE. THE INFORMATION ON THIS MATERIAL SAFETY DATA SHEET RELATES ONLY TO THE SPECIFIC MATERIAL DESIGNATED HEREIN AND DOES NOT RELATE TO USE IN COMBINATION WITH ANY OTHER MATERIAL OR IN ANY PROCESS.

PREPARED BY..... TECHNICAL SERVICES

PREPARATION DATE ..... Aug15/12