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SDS

**Common Name:** DEGREASER

**Manufacturer:** H&C CONCRETE STAINS

**SDS Revision Date:** 4/24/2015

**SDS Format:** GHS-US

**Item Number(s):** 38EK63

**Manufacturer Model Number(s):**

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SAFETY DATA SHEET

50.070015

**SECTION 1. IDENTIFICATION**



PRODUCT NAME: H&C (R\*) DEGREASER

PRODUCT CODE: 50.070015

OTHER MEANS OF IDENTIFICATION: NOT AVAILABLE.

PRODUCT TYPE: LIQUID.

RELEVANT IDENTIFIED USES OF THE SUBSTANCE OR MIXTURE AND USES ADVISED AGAINST: NOT APPLICABLE.

MANUFACTURER:  
H&C CONCRETE STAINS  
101 PROSPECT AVENUE N.W.  
CLEVELAND, OH 44115

EMERGENCY TELEPHONE NUMBER OF THE COMPANY: (216) 566-2917

PRODUCT INFORMATION TELEPHONE NUMBER: (800) 867-8246

REGULATORY INFORMATION TELEPHONE NUMBER: (216) 566-2902

TRANSPORTATION EMERGENCY TELEPHONE NUMBER: (800) 424-9300

## SECTION 2. HAZARDS IDENTIFICATION



### OSHA/HCS STATUS:

THIS MATERIAL IS CONSIDERED HAZARDOUS BY THE OSHA HAZARD COMMUNICATION STANDARD (29 CFR 1910.1200).

### CLASSIFICATION OF THE SUBSTANCE OR MIXTURE:

FLAMMABLE LIQUIDS: CATEGORY 4

SKIN CORROSION/IRRITATION: CATEGORY 2

SERIOUS EYE DAMAGE/EYE IRRITATION: CATEGORY 1

SKIN SENSITIZATION: CATEGORY 1

SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (RESPIRATORY TRACT IRRITATION AND NARCOTIC EFFECTS): CATEGORY 3

SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE): CATEGORY 2

PERCENTAGE OF THE MIXTURE CONSISTING OF INGREDIENT(S) OF UNKNOWN TOXICITY: 48.9%

### GHS LABEL ELEMENTS:

#### HAZARD PICTOGRAMS:

CORROSION  
HEALTH HAZARD  
EXCLAMATION MARK

SIGNAL WORD: DANGER

#### HAZARD STATEMENTS:

COMBUSTIBLE LIQUID.  
CAUSES SERIOUS EYE DAMAGE.  
CAUSES SKIN IRRITATION.  
MAY CAUSE AN ALLERGIC SKIN REACTION.  
MAY CAUSE RESPIRATORY IRRITATION.  
MAY CAUSE DROWSINESS AND DIZZINESS.  
MAY CAUSE DAMAGE TO ORGANS THROUGH PROLONGED OR REPEATED EXPOSURE.

#### PRECAUTIONARY STATEMENTS:

##### GENERAL:

READ LABEL BEFORE USE. KEEP OUT OF REACH OF CHILDREN. IF MEDICAL ADVICE IS NEEDED, HAVE PRODUCT CONTAINER OR LABEL AT HAND.

##### PREVENTION:

WEAR PROTECTIVE GLOVES. WEAR EYE OR FACE PROTECTION. KEEP AWAY FROM FLAMES AND HOT SURFACES. - NO SMOKING. USE ONLY OUTDOORS OR IN A WELL-VENTILATED AREA. DO NOT BREATHE VAPOR. WASH HANDS THOROUGHLY AFTER HANDLING. CONTAMINATED WORK CLOTHING SHOULD NOT BE ALLOWED OUT OF THE WORKPLACE.

RESPONSE: GET MEDICAL ATTENTION IF YOU FEEL UNWELL.

##### IF INHALED:

REMOVE VICTIM TO FRESH AIR AND KEEP AT REST IN A POSITION COMFORTABLE FOR

BREATHING. CALL A POISON CENTER OR PHYSICIAN IF YOU FEEL UNWELL.

IF ON SKIN:

WASH WITH PLENTY OF SOAP AND WATER. TAKE OFF CONTAMINATED CLOTHING.  
WASH CONTAMINATED CLOTHING BEFORE REUSE.

IF SKIN IRRITATION OR RASH OCCURS: GET MEDICAL ATTENTION.

IF IN EYES:

RINSE CAUTIOUSLY WITH WATER FOR SEVERAL MINUTES. REMOVE CONTACT LENSES, IF PRESENT AND EASY TO DO. CONTINUE RINSING. IMMEDIATELY CALL A POISON CENTER OR PHYSICIAN.

STORAGE: STORE LOCKED UP. STORE IN A WELL-VENTILATED PLACE. KEEP COOL.

DISPOSAL:

DISPOSE OF CONTENTS AND CONTAINER IN ACCORDANCE WITH ALL LOCAL, REGIONAL, NATIONAL AND INTERNATIONAL REGULATIONS.

SUPPLEMENTAL LABEL ELEMENTS:

DELAYED EFFECTS FROM LONG TERM OVEREXPOSURE. CONTAINS SOLVENTS WHICH CAN CAUSE PERMANENT BRAIN AND NERVOUS SYSTEM DAMAGE. INTENTIONAL MISUSE BY DELIBERATELY CONCENTRATING AND INHALING THE CONTENTS CAN BE HARMFUL OR FATAL. FOR INDUSTRIAL USE ONLY.

PLEASE REFER TO THE SDS FOR ADDITIONAL INFORMATION. DO NOT TRANSFER CONTENTS TO OTHER CONTAINERS FOR STORAGE.

HAZARDS NOT OTHERWISE CLASSIFIED: NONE KNOWN.

### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS



SUBSTANCE/MIXTURE: MIXTURE

OTHER MEANS OF IDENTIFICATION: NOT AVAILABLE.

CAS NUMBER/OTHER IDENTIFIERS:

INGREDIENT NAME	% BY WEIGHT	CAS NUMBER
LIGHT ALIPHATIC HYDROCARBON	40.0	64742-47-8
ALKYL ARYL SULFONATE	12.4	26264-05-1
BUTOXYPROPANOL	10.5	5131-66-8
NONYLPHENOXYPOLY(ETHOXY)ETHANOL	6.5	9016-45-9
D-LIMONENE	1.0	5989-27-5

THERE ARE NO ADDITIONAL INGREDIENTS PRESENT WHICH, WITHIN THE CURRENT KNOWLEDGE OF THE SUPPLIER AND IN THE CONCENTRATIONS APPLICABLE, ARE CLASSIFIED AS HAZARDOUS TO HEALTH OR THE ENVIRONMENT AND HENCE REQUIRE REPORTING IN THIS SECTION.

OCCUPATIONAL EXPOSURE LIMITS, IF AVAILABLE, ARE LISTED IN SECTION 8.

### SECTION 4. FIRST AID MEASURES



DESCRIPTION OF NECESSARY FIRST AID MEASURES:

EYE CONTACT:

GET MEDICAL ATTENTION IMMEDIATELY. CALL A POISON CENTER OR PHYSICIAN.

IMMEDIATELY FLUSH EYES WITH PLENTY OF WATER, OCCASIONALLY LIFTING THE UPPER AND LOWER EYELIDS. CHECK FOR AND REMOVE ANY CONTACT LENSES. CONTINUE TO RINSE FOR AT LEAST 10 MINUTES. CHEMICAL BURNS MUST BE TREATED PROMPTLY BY A PHYSICIAN.

**INHALATION:**

GET MEDICAL ATTENTION IMMEDIATELY. CALL A POISON CENTER OR PHYSICIAN. REMOVE VICTIM TO FRESH AIR AND KEEP AT REST IN A POSITION COMFORTABLE FOR BREATHING. IF IT IS SUSPECTED THAT FUMES ARE STILL PRESENT, THE RESCUER SHOULD WEAR AN APPROPRIATE MASK OR SELF-CONTAINED BREATHING APPARATUS. IF NOT BREATHING, IF BREATHING IS IRREGULAR OR IF RESPIRATORY ARREST OCCURS, PROVIDE ARTIFICIAL RESPIRATION OR OXYGEN BY TRAINED PERSONNEL. IT MAY BE DANGEROUS TO THE PERSON PROVIDING AID TO GIVE MOUTH-TO-MOUTH RESUSCITATION. IF UNCONSCIOUS, PLACE IN RECOVERY POSITION AND GET MEDICAL ATTENTION IMMEDIATELY. MAINTAIN AN OPEN AIRWAY. LOOSEN TIGHT CLOTHING SUCH AS A COLLAR, TIE, BELT OR WAISTBAND. IN CASE OF INHALATION OF DECOMPOSITION PRODUCTS IN A FIRE, SYMPTOMS MAY BE DELAYED. THE EXPOSED PERSON MAY NEED TO BE KEPT UNDER MEDICAL SURVEILLANCE FOR 48 HOURS.

**SKIN CONTACT:**

GET MEDICAL ATTENTION IMMEDIATELY. CALL A POISON CENTER OR PHYSICIAN. WASH WITH PLENTY OF SOAP AND WATER. REMOVE CONTAMINATED CLOTHING AND SHOES. WASH CONTAMINATED CLOTHING THOROUGHLY WITH WATER BEFORE REMOVING IT, OR WEAR GLOVES. CONTINUE TO RINSE FOR AT LEAST 10 MINUTES. CHEMICAL BURNS MUST BE TREATED PROMPTLY BY A PHYSICIAN. IN THE EVENT OF ANY COMPLAINTS OR SYMPTOMS, AVOID FURTHER EXPOSURE. WASH CLOTHING BEFORE REUSE. CLEAN SHOES THOROUGHLY BEFORE REUSE.

**INGESTION:**

GET MEDICAL ATTENTION IMMEDIATELY. CALL A POISON CENTER OR PHYSICIAN. WASH OUT MOUTH WITH WATER. REMOVE DENTURES IF ANY. REMOVE VICTIM TO FRESH AIR AND KEEP AT REST IN A POSITION COMFORTABLE FOR BREATHING. IF MATERIAL HAS BEEN SWALLOWED AND THE EXPOSED PERSON IS CONSCIOUS, GIVE SMALL QUANTITIES OF WATER TO DRINK. STOP IF THE EXPOSED PERSON FEELS SICK AS VOMITING MAY BE DANGEROUS. DO NOT INDUCE VOMITING UNLESS DIRECTED TO DO SO BY MEDICAL PERSONNEL. IF VOMITING OCCURS, THE HEAD SHOULD BE KEPT LOW SO THAT VOMIT DOES NOT ENTER THE LUNGS. CHEMICAL BURNS MUST BE TREATED PROMPTLY BY A PHYSICIAN. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. IF UNCONSCIOUS, PLACE IN RECOVERY POSITION AND GET MEDICAL ATTENTION IMMEDIATELY. MAINTAIN AN OPEN AIRWAY. LOOSEN TIGHT CLOTHING SUCH AS A COLLAR, TIE, BELT OR WAISTBAND.

MOST IMPORTANT SYMPTOMS/EFFECTS, ACUTE AND DELAYED:

POTENTIAL ACUTE HEALTH EFFECTS:

EYE CONTACT: CAUSES SERIOUS EYE DAMAGE.

**INHALATION:**

CAN CAUSE CENTRAL NERVOUS SYSTEM (CNS) DEPRESSION. MAY CAUSE DROWSINESS AND DIZZINESS. MAY CAUSE RESPIRATORY IRRITATION. EXPOSURE TO DECOMPOSITION PRODUCTS MAY CAUSE A HEALTH HAZARD. SERIOUS EFFECTS MAY BE DELAYED FOLLOWING EXPOSURE.

SKIN CONTACT: CAUSES SKIN IRRITATION. MAY CAUSE AN ALLERGIC SKIN REACTION.

**INGESTION:**

CAN CAUSE CENTRAL NERVOUS SYSTEM (CNS) DEPRESSION. MAY CAUSE BURNS TO MOUTH, THROAT AND STOMACH.

OVER-EXPOSURE SIGNS/SYMPTOMS:

**EYE CONTACT:**

ADVERSE SYMPTOMS MAY INCLUDE THE FOLLOWING:

PAIN WATERING  
REDNESS

**INHALATION:**

ADVERSE SYMPTOMS MAY INCLUDE THE FOLLOWING:  
RESPIRATORY TRACT IRRITATION  
COUGHING  
NAUSEA OR VOMITING  
HEADACHE  
DROWSINESS/FATIGUE  
DIZZINESS/VERTIGO  
UNCONSCIOUSNESS

SKIN CONTACT:  
ADVERSE SYMPTOMS MAY INCLUDE THE FOLLOWING:  
PAIN OR IRRITATION  
REDNESS  
BLISTERING MAY OCCUR

INGESTION:  
ADVERSE SYMPTOMS MAY INCLUDE THE FOLLOWING: STOMACH PAINS

INDICATION OF IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED, IF NECESSARY:

NOTES TO PHYSICIAN:  
IN CASE OF INHALATION OF DECOMPOSITION PRODUCTS IN A FIRE, SYMPTOMS MAY BE DELAYED. THE EXPOSED PERSON MAY NEED TO BE KEPT UNDER MEDICAL SURVEILLANCE FOR 48 HOURS.

SPECIFIC TREATMENTS: NO SPECIFIC TREATMENT.

PROTECTION OF FIRST-AIDERS:  
NO ACTION SHALL BE TAKEN INVOLVING ANY PERSONAL RISK OR WITHOUT SUITABLE TRAINING. IF IT IS SUSPECTED THAT FUMES ARE STILL PRESENT, THE RESCUER SHOULD WEAR AN APPROPRIATE MASK OR SELF-CONTAINED BREATHING APPARATUS. IT MAY BE DANGEROUS TO THE PERSON PROVIDING AID TO GIVE MOUTH-TO-MOUTH RESUSCITATION. WASH CONTAMINATED CLOTHING THOROUGHLY WITH WATER BEFORE REMOVING IT, OR WEAR GLOVES.

SEE TOXICOLOGICAL INFORMATION (SECTION 11)

## SECTION 5. FIRE-FIGHTING MEASURES



EXTINGUISHING MEDIA:

SUITABLE EXTINGUISHING MEDIA:  
USE DRY CHEMICAL, CO<sub>2</sub>, WATER SPRAY (FOG) OR FOAM.

UNSUITABLE EXTINGUISHING MEDIA: DO NOT USE WATER JET.

SPECIFIC HAZARDS ARISING FROM THE CHEMICAL:  
COMBUSTIBLE LIQUID. IN A FIRE OR IF HEATED, A PRESSURE INCREASE WILL OCCUR AND THE CONTAINER MAY BURST, WITH THE RISK OF A SUBSEQUENT EXPLOSION.  
RUNOFF TO SEWER MAY CREATE FIRE OR EXPLOSION HAZARD.

HAZARDOUS THERMAL DECOMPOSITION PRODUCTS:  
DECOMPOSITION PRODUCTS MAY INCLUDE THE FOLLOWING MATERIALS:  
CARBON DIOXIDE  
CARBON MONOXIDE  
NITROGEN OXIDES  
SULFUR OXIDES  
METAL OXIDE/OXIDES

SPECIAL PROTECTIVE ACTIONS FOR FIRE-FIGHTERS:  
PROMPTLY ISOLATE THE SCENE BY REMOVING ALL PERSONS FROM THE VICINITY OF THE INCIDENT IF THERE IS A FIRE. NO ACTION SHALL BE TAKEN INVOLVING ANY PERSONAL RISK OR WITHOUT SUITABLE TRAINING. MOVE CONTAINERS FROM FIRE AREA IF THIS CAN BE DONE WITHOUT RISK. USE WATER SPRAY TO KEEP FIRE-EXPOSED

CONTAINERS COOL.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS:  
FIRE-FIGHTERS SHOULD WEAR APPROPRIATE PROTECTIVE EQUIPMENT AND  
SELF-CONTAINED BREATHING APPARATUS (SCBA) WITH A FULL FACE-PIECE OPERATED  
IN POSITIVE PRESSURE MODE.

## SECTION 6. ACCIDENTAL RELEASE MEASURES



PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES:

FOR NON-EMERGENCY PERSONNEL:

NO ACTION SHALL BE TAKEN INVOLVING ANY PERSONAL RISK OR WITHOUT SUITABLE TRAINING. EVACUATE SURROUNDING AREAS. KEEP UNNECESSARY AND UNPROTECTED PERSONNEL FROM ENTERING. DO NOT TOUCH OR WALK THROUGH SPILLED MATERIAL. SHUT OFF ALL IGNITION SOURCES. NO FLARES, SMOKING OR FLAMES IN HAZARD AREA. DO NOT BREATHE VAPOR OR MIST. PROVIDE ADEQUATE VENTILATION. WEAR APPROPRIATE RESPIRATOR WHEN VENTILATION IS INADEQUATE. PUT ON APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT.

FOR EMERGENCY RESPONDERS:

IF SPECIALISED CLOTHING IS REQUIRED TO DEAL WITH THE SPILLAGE, TAKE NOTE OF ANY INFORMATION IN SECTION 8 ON SUITABLE AND UNSUITABLE MATERIALS. SEE ALSO THE INFORMATION IN "FOR NON-EMERGENCY PERSONNEL".

ENVIRONMENTAL PRECAUTIONS:

AVOID DISPERSAL OF SPILLED MATERIAL AND RUNOFF AND CONTACT WITH SOIL, WATERWAYS, DRAINS AND SEWERS. INFORM THE RELEVANT AUTHORITIES IF THE PRODUCT HAS CAUSED ENVIRONMENTAL POLLUTION (SEWERS, WATERWAYS, SOIL OR AIR).

METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP:

SMALL SPILL:

STOP LEAK IF WITHOUT RISK. MOVE CONTAINERS FROM SPILL AREA. USE SPARK-PROOF TOOLS AND EXPLOSION-PROOF EQUIPMENT. DILUTE WITH WATER AND MOP UP IF WATER-SOLUBLE. ALTERNATIVELY, OR IF WATER-INSOLUBLE, ABSORB WITH AN INERT DRY MATERIAL AND PLACE IN AN APPROPRIATE WASTE DISPOSAL CONTAINER. DISPOSE OF VIA A LICENSED WASTE DISPOSAL CONTRACTOR.

LARGE SPILL:

STOP LEAK IF WITHOUT RISK. MOVE CONTAINERS FROM SPILL AREA. USE SPARK-PROOF TOOLS AND EXPLOSION-PROOF EQUIPMENT. APPROACH RELEASE FROM UPWIND. PREVENT ENTRY INTO SEWERS, WATER COURSES, BASEMENTS OR CONFINED AREAS. WASH SPILLAGES INTO AN EFFLUENT TREATMENT PLANT OR PROCEED AS FOLLOWS. CONTAIN AND COLLECT SPILLAGE WITH NON-COMBUSTIBLE, ABSORBENT MATERIAL E.G. SAND, EARTH, VERMICULITE OR DIATOMACEOUS EARTH AND PLACE IN CONTAINER FOR DISPOSAL ACCORDING TO LOCAL REGULATIONS (SEE SECTION 13). DISPOSE OF VIA A LICENSED WASTE DISPOSAL CONTRACTOR. CONTAMINATED ABSORBENT MATERIAL MAY POSE THE SAME HAZARD AS THE SPILLED PRODUCT.

NOTE:

SEE SECTION 1 FOR EMERGENCY CONTACT INFORMATION AND SECTION 13 FOR WASTE DISPOSAL.

## SECTION 7. HANDLING AND STORAGE



PRECAUTIONS FOR SAFE HANDLING:

PROTECTIVE MEASURES:

PUT ON APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT (SEE SECTION 8). PERSONS WITH A HISTORY OF SKIN SENSITIZATION PROBLEMS SHOULD NOT BE EMPLOYED IN ANY PROCESS IN WHICH THIS PRODUCT IS USED. DO NOT GET IN EYES OR ON SKIN OR

CLOTHING. DO NOT BREATHE VAPOR OR MIST. DO NOT INGEST. USE ONLY WITH ADEQUATE VENTILATION. WEAR APPROPRIATE RESPIRATOR WHEN VENTILATION IS INADEQUATE. DO NOT ENTER STORAGE AREAS AND CONFINED SPACES UNLESS ADEQUATELY VENTILATED. KEEP IN THE ORIGINAL CONTAINER OR AN APPROVED ALTERNATIVE MADE FROM A COMPATIBLE MATERIAL, KEPT TIGHTLY CLOSED WHEN NOT IN USE. STORE AND USE AWAY FROM HEAT, SPARKS, OPEN FLAME OR ANY OTHER IGNITION SOURCE. USE EXPLOSION-PROOF ELECTRICAL (VENTILATING, LIGHTING AND MATERIAL HANDLING) EQUIPMENT. USE ONLY NON-SPARKING TOOLS. EMPTY CONTAINERS RETAIN PRODUCT RESIDUE AND CAN BE HAZARDOUS. DO NOT REUSE CONTAINER.

ADVICE ON GENERAL OCCUPATIONAL HYGIENE:

EATING, DRINKING AND SMOKING SHOULD BE PROHIBITED IN AREAS WHERE THIS MATERIAL IS HANDLED, STORED AND PROCESSED. WORKERS SHOULD WASH HANDS AND FACE BEFORE EATING, DRINKING AND SMOKING. REMOVE CONTAMINATED CLOTHING AND PROTECTIVE EQUIPMENT BEFORE ENTERING EATING AREAS. SEE ALSO SECTION 8 FOR ADDITIONAL INFORMATION ON HYGIENE MEASURES.

CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES:

STORE IN ACCORDANCE WITH LOCAL REGULATIONS. STORE IN A SEGREGATED AND APPROVED AREA. STORE IN ORIGINAL CONTAINER PROTECTED FROM DIRECT SUNLIGHT IN A DRY, COOL AND WELL-VENTILATED AREA, AWAY FROM INCOMPATIBLE MATERIALS (SEE SECTION 10) AND FOOD AND DRINK. STORE LOCKED UP. ELIMINATE ALL IGNITION SOURCES. SEPARATE FROM OXIDIZING MATERIALS. KEEP CONTAINER TIGHTLY CLOSED AND SEALED UNTIL READY FOR USE. CONTAINERS THAT HAVE BEEN OPENED MUST BE CAREFULLY RESEALED AND KEPT UPRIGHT TO PREVENT LEAKAGE. DO NOT STORE IN UNLABELED CONTAINERS. USE APPROPRIATE CONTAINMENT TO AVOID ENVIRONMENTAL CONTAMINATION.

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION



CONTROL PARAMETERS:

OCCUPATIONAL EXPOSURE LIMITS:

INGREDIENT NAME	EXPOSURE LIMITS
LIGHT ALIPHATIC HYDROCARBON	ACGIH TLV (UNITED STATES, 4/2014). ABSORBED THROUGH SKIN. TWA: 200 MG/M3, (AS TOTAL HYDROCARBON VAPOR) 8 HOURS.

APPROPRIATE ENGINEERING CONTROLS:

USE ONLY WITH ADEQUATE VENTILATION. USE PROCESS ENCLOSURES, LOCAL EXHAUST VENTILATION OR OTHER ENGINEERING CONTROLS TO KEEP WORKER EXPOSURE TO AIRBORNE CONTAMINANTS BELOW ANY RECOMMENDED OR STATUTORY LIMITS. THE ENGINEERING CONTROLS ALSO NEED TO KEEP GAS, VAPOR OR DUST CONCENTRATIONS BELOW ANY LOWER EXPLOSIVE LIMITS. USE EXPLOSION-PROOF VENTILATION EQUIPMENT.

ENVIRONMENTAL EXPOSURE CONTROLS:

EMISSIONS FROM VENTILATION OR WORK PROCESS EQUIPMENT SHOULD BE CHECKED TO ENSURE THEY COMPLY WITH THE REQUIREMENTS OF ENVIRONMENTAL PROTECTION LEGISLATION. IN SOME CASES, FUME SCRUBBERS, FILTERS OR ENGINEERING MODIFICATIONS TO THE PROCESS EQUIPMENT WILL BE NECESSARY TO REDUCE EMISSIONS TO ACCEPTABLE LEVELS.

INDIVIDUAL PROTECTION MEASURES:

HYGIENE MEASURES:

WASH HANDS, FOREARMS AND FACE THOROUGHLY AFTER HANDLING CHEMICAL PRODUCTS, BEFORE EATING, SMOKING AND USING THE LAVATORY AND AT THE END OF THE WORKING PERIOD. APPROPRIATE TECHNIQUES SHOULD BE USED TO REMOVE POTENTIALLY

CONTAMINATED CLOTHING. CONTAMINATED WORK CLOTHING SHOULD NOT BE ALLOWED OUT OF THE WORKPLACE. WASH CONTAMINATED CLOTHING BEFORE REUSING. ENSURE THAT EYEWASH STATIONS AND SAFETY SHOWERS ARE CLOSE TO THE WORKSTATION LOCATION.

**EYE/FACE PROTECTION:**

SAFETY EYEWEAR COMPLYING WITH AN APPROVED STANDARD SHOULD BE USED WHEN A RISK ASSESSMENT INDICATES THIS IS NECESSARY TO AVOID EXPOSURE TO LIQUID SPLASHES, MISTS, GASES OR DUSTS.

IF CONTACT IS POSSIBLE, THE FOLLOWING PROTECTION SHOULD BE WORN, UNLESS THE ASSESSMENT INDICATES A HIGHER DEGREE OF PROTECTION:  
CHEMICAL SPLASH GOGGLES AND/ OR FACE SHIELD. IF INHALATION HAZARDS EXIST, A FULL-FACE RESPIRATOR MAY BE REQUIRED INSTEAD.

**SKIN PROTECTION:**

**HAND PROTECTION:**

CHEMICAL-RESISTANT, IMPERVIOUS GLOVES COMPLYING WITH AN APPROVED STANDARD SHOULD BE WORN AT ALL TIMES WHEN HANDLING CHEMICAL PRODUCTS IF A RISK ASSESSMENT INDICATES THIS IS NECESSARY. CONSIDERING THE PARAMETERS SPECIFIED BY THE GLOVE MANUFACTURER, CHECK DURING USE THAT THE GLOVES ARE STILL RETAINING THEIR PROTECTIVE PROPERTIES. IT SHOULD BE NOTED THAT THE TIME TO BREAKTHROUGH FOR ANY GLOVE MATERIAL MAY BE DIFFERENT FOR DIFFERENT GLOVE MANUFACTURERS. IN THE CASE OF MIXTURES, CONSISTING OF SEVERAL SUBSTANCES, THE PROTECTION TIME OF THE GLOVES CANNOT BE ACCURATELY ESTIMATED.

**BODY PROTECTION:**

PERSONAL PROTECTIVE EQUIPMENT FOR THE BODY SHOULD BE SELECTED BASED ON THE TASK BEING PERFORMED AND THE RISKS INVOLVED AND SHOULD BE APPROVED BY A SPECIALIST BEFORE HANDLING THIS PRODUCT.

**OTHER SKIN PROTECTION:**

APPROPRIATE FOOTWEAR AND ANY ADDITIONAL SKIN PROTECTION MEASURES SHOULD BE SELECTED BASED ON THE TASK BEING PERFORMED AND THE RISKS INVOLVED AND SHOULD BE APPROVED BY A SPECIALIST BEFORE HANDLING THIS PRODUCT.

**RESPIRATORY PROTECTION:**

USE A PROPERLY FITTED, AIR-PURIFYING OR AIR-FED RESPIRATOR COMPLYING WITH AN APPROVED STANDARD IF A RISK ASSESSMENT INDICATES THIS IS NECESSARY. RESPIRATOR SELECTION MUST BE BASED ON KNOWN OR ANTICIPATED EXPOSURE LEVELS, THE HAZARDS OF THE PRODUCT AND THE SAFE WORKING LIMITS OF THE SELECTED RESPIRATOR.

## **SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**



**APPEARANCE:**

PHYSICAL STATE: LIQUID.

COLOR: NOT AVAILABLE.

ODOR: NOT AVAILABLE.

ODOR THRESHOLD: NOT AVAILABLE.

PH: 7.5

MELTING POINT: NOT AVAILABLE.

BOILING POINT: 100 DEG. C (212 DEG. F)

**FLASH POINT:**

CLOSED CUP: 61 DEG. C (141.8 DEG. F) [PENSKY-MARTENS CLOSED CUP]



EVAPORATION RATE: 0.09 (BUTYL ACETATE = 1)

FLAMMABILITY (SOLID, GAS): NOT AVAILABLE.

LOWER AND UPPER EXPLOSIVE (FLAMMABLE) LIMITS:

LOWER: 0.7%

UPPER: 14.4%

VAPOR PRESSURE: NOT AVAILABLE.

VAPOR DENSITY: 1 [AIR = 1]

RELATIVE DENSITY: NOT AVAILABLE.

SOLUBILITY: NOT AVAILABLE.

PARTITION COEFFICIENT N-OCTANOL/WATER: NOT AVAILABLE.

AUTO-IGNITION TEMPERATURE: NOT AVAILABLE.

DECOMPOSITION TEMPERATURE: NOT AVAILABLE.

VISCOSITY:

KINEMATIC (ROOM TEMPERATURE): <0.07 CM2/S (<7 CST)

KINEMATIC (40 DEG. C (104 DEG. F)): <0.07 CM2/S (<7 CST)

## SECTION 10. STABILITY AND REACTIVITY

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REACTIVITY:

NO SPECIFIC TEST DATA RELATED TO REACTIVITY AVAILABLE FOR THIS PRODUCT OR ITS INGREDIENTS.

CHEMICAL STABILITY: THE PRODUCT IS STABLE.

POSSIBILITY OF HAZARDOUS REACTIONS:

UNDER NORMAL CONDITIONS OF STORAGE AND USE, HAZARDOUS REACTIONS WILL NOT OCCUR.

CONDITIONS TO AVOID:

AVOID ALL POSSIBLE SOURCES OF IGNITION (SPARK OR FLAME). DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND OR EXPOSE CONTAINERS TO HEAT OR SOURCES OF IGNITION.

INCOMPATIBLE MATERIALS:

REACTIVE OR INCOMPATIBLE WITH THE FOLLOWING MATERIALS: OXIDIZING MATERIALS

HAZARDOUS DECOMPOSITION PRODUCTS:

UNDER NORMAL CONDITIONS OF STORAGE AND USE, HAZARDOUS DECOMPOSITION PRODUCTS SHOULD NOT BE PRODUCED.

## SECTION 11. TOXICOLOGICAL INFORMATION

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INFORMATION ON TOXICOLOGICAL EFFECTS:

ACUTE TOXICITY:

PRODUCT/INGREDIENT NAME	RESULT	SPECIES	DOSE	EXPOSURE
ALKYL ARYL SULFONATE	LD50 ORAL	RAT	1300 MG/KG	
BUTOXYPROPANOL	LD50 DERMAL	RABBIT	3100 MG/KG	
D-LIMONENE	LD50 DERMAL	RABBIT	>5000 MG/KG	

LD50 ORAL RAT 4400 MG/KG

IRRITATION/CORROSION:

PRODUCT/INGREDIENT NAME	RESULT	SPECIES	SCORE	EXPOSURE	OBSERVATION
ALKYL ARYL SULFONATE	EYES: SEVERE IRRITANT	RABBIT		24 HOURS 100 MICROLITERS	
D-LIMONENE	SKIN: MILD IRRITANT	RABBIT		24 HOURS 10 PERCENT	

SENSITIZATION: NOT AVAILABLE.

MUTAGENICITY: NOT AVAILABLE.

CARCINOGENICITY: NOT AVAILABLE.

CLASSIFICATION:

PRODUCT/INGREDIENT NAME	OSHA	IARC	NTP
D-LIMONENE		3	

REPRODUCTIVE TOXICITY: NOT AVAILABLE.

TERATOGENICITY: NOT AVAILABLE.

SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE):

NAME	CATEGORY	ROUTE OF EXPOSURE	TARGET ORGANS
LIGHT ALIPHATIC HYDROCARBON	CATEGORY 3	NOT APPLICABLE.	RESPIRATORY TRACT IRRITATION AND NARCOTIC EFFECTS
BUTOXYPROPANOL	CATEGORY 3	NOT APPLICABLE.	RESPIRATORY TRACT IRRITATION AND NARCOTIC EFFECTS
D-LIMONENE	CATEGORY 3	NOT APPLICABLE.	RESPIRATORY TRACT IRRITATION AND NARCOTIC EFFECTS

SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE):

NAME	CATEGORY	ROUTE OF EXPOSURE	TARGET ORGANS
LIGHT ALIPHATIC HYDROCARBON	CATEGORY 2	NOT DETERMINED	NOT DETERMINED
BUTOXYPROPANOL	CATEGORY 2	NOT DETERMINED	NOT DETERMINED
D-LIMONENE	CATEGORY 2	NOT DETERMINED	NOT DETERMINED

ASPIRATION HAZARD:

NAME	RESULT
D-LIMONENE	ASPIRATION HAZARD - CATEGORY 1

INFORMATION ON THE LIKELY ROUTES OF EXPOSURE: NOT AVAILABLE.

POTENTIAL ACUTE HEALTH EFFECTS:

EYE CONTACT: CAUSES SERIOUS EYE DAMAGE.

INHALATION:

CAN CAUSE CENTRAL NERVOUS SYSTEM (CNS) DEPRESSION. MAY CAUSE DROWSINESS AND DIZZINESS. MAY CAUSE RESPIRATORY IRRITATION. EXPOSURE TO DECOMPOSITION PRODUCTS MAY CAUSE A HEALTH HAZARD. SERIOUS EFFECTS MAY BE DELAYED FOLLOWING EXPOSURE.

SKIN CONTACT: CAUSES SKIN IRRITATION. MAY CAUSE AN ALLERGIC SKIN REACTION.

INGESTION:

CAN CAUSE CENTRAL NERVOUS SYSTEM (CNS) DEPRESSION. MAY CAUSE BURNS TO MOUTH, THROAT AND STOMACH.

SYMPTOMS RELATED TO THE PHYSICAL, CHEMICAL AND TOXICOLOGICAL CHARACTERISTICS:

EYE CONTACT:

ADVERSE SYMPTOMS MAY INCLUDE THE FOLLOWING:  
PAIN WATERING  
REDNESS

INHALATION:

ADVERSE SYMPTOMS MAY INCLUDE THE FOLLOWING:  
RESPIRATORY TRACT IRRITATION  
COUGHING  
NAUSEA OR VOMITING  
HEADACHE  
DROWSINESS/FATIGUE  
DIZZINESS/VERTIGO  
UNCONSCIOUSNESS

SKIN CONTACT:

ADVERSE SYMPTOMS MAY INCLUDE THE FOLLOWING:  
PAIN OR IRRITATION  
REDNESS  
BLISTERING MAY OCCUR

INGESTION:

ADVERSE SYMPTOMS MAY INCLUDE THE FOLLOWING: STOMACH PAINS

DELAYED AND IMMEDIATE EFFECTS AND ALSO CHRONIC EFFECTS FROM SHORT AND LONG TERM EXPOSURE:

SHORT TERM EXPOSURE:

POTENTIAL IMMEDIATE EFFECTS: NOT AVAILABLE.  
POTENTIAL DELAYED EFFECTS: NOT AVAILABLE.

LONG TERM EXPOSURE:

POTENTIAL IMMEDIATE EFFECTS: NOT AVAILABLE.  
POTENTIAL DELAYED EFFECTS: NOT AVAILABLE.

POTENTIAL CHRONIC HEALTH EFFECTS: NOT AVAILABLE.

GENERAL:

MAY CAUSE DAMAGE TO ORGANS THROUGH PROLONGED OR REPEATED EXPOSURE. ONCE SENSITIZED, A SEVERE ALLERGIC REACTION MAY OCCUR WHEN SUBSEQUENTLY EXPOSED TO VERY LOW LEVELS.

CARCINOGENICITY: NO KNOWN SIGNIFICANT EFFECTS OR CRITICAL HAZARDS.

MUTAGENICITY: NO KNOWN SIGNIFICANT EFFECTS OR CRITICAL HAZARDS.

TERATOGENICITY: NO KNOWN SIGNIFICANT EFFECTS OR CRITICAL HAZARDS.

DEVELOPMENTAL EFFECTS: NO KNOWN SIGNIFICANT EFFECTS OR CRITICAL HAZARDS.

FERTILITY EFFECTS: NO KNOWN SIGNIFICANT EFFECTS OR CRITICAL HAZARDS.

NUMERICAL MEASURES OF TOXICITY:

ACUTE TOXICITY ESTIMATES:

ROUTE	ATE VALUE
ORAL	5377.6 MG/KG
DERMAL	15084.2 MG/KG

## SECTION 12. ECOLOGICAL INFORMATION

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TOXICITY:

PRODUCT/INGREDIENT NAME	RESULT	SPECIES	EXPOSURE
LIGHT ALIPHATIC HYDROCARBON	ACUTE LC50: 2200 (MICRO)G/L FRESH WATER	FISH - LEPOMIS MACROCHIRUS	4 DAYS
D-LIMONENE	ACUTE EC50: 421 (MICRO)G/L FRESH WATER	DAPHNIA - DAPHNIA MAGNA	48 HOURS
	ACUTE EC50: 688 (MICRO)G/L FRESH WATER	FISH - PIMEPHALES PROMELAS - JUVENILE (FLEDGLING, HATCHLING, WEANLING)	96 HOURS

PERSISTENCE AND DEGRADABILITY: NOT AVAILABLE.

BIOACCUMULATIVE POTENTIAL:

PRODUCT/INGREDIENT NAME	LOGPOW	BCF	POTENTIAL
D-LIMONENE		1022	HIGH

MOBILITY IN SOIL:

SOIL/WATER PARTITION COEFFICIENT (KOC): NOT AVAILABLE.

OTHER ADVERSE EFFECTS: NO KNOWN SIGNIFICANT EFFECTS OR CRITICAL HAZARDS.

## SECTION 13. DISPOSAL CONSIDERATIONS

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DISPOSAL METHODS:

THE GENERATION OF WASTE SHOULD BE AVOIDED OR MINIMIZED WHEREVER POSSIBLE. DISPOSAL OF THIS PRODUCT, SOLUTIONS AND ANY BY-PRODUCTS SHOULD AT ALL TIMES COMPLY WITH THE REQUIREMENTS OF ENVIRONMENTAL PROTECTION AND WASTE DISPOSAL LEGISLATION AND ANY REGIONAL LOCAL AUTHORITY REQUIREMENTS. DISPOSE OF SURPLUS AND NON-RECYCLABLE PRODUCTS VIA A LICENSED WASTE DISPOSAL CONTRACTOR. WASTE SHOULD NOT BE DISPOSED OF UNTREATED TO THE SEWER UNLESS FULLY COMPLIANT WITH THE REQUIREMENTS OF ALL AUTHORITIES WITH JURISDICTION. WASTE PACKAGING SHOULD BE RECYCLED. INCINERATION OR LANDFILL SHOULD ONLY BE CONSIDERED WHEN RECYCLING IS NOT FEASIBLE. THIS MATERIAL AND ITS CONTAINER MUST BE DISPOSED OF IN A SAFE WAY. CARE SHOULD BE TAKEN WHEN HANDLING EMPTIED CONTAINERS THAT HAVE NOT BEEN CLEANED OR RINSED OUT. EMPTY CONTAINERS OR LINERS MAY RETAIN SOME PRODUCT RESIDUES. VAPOR FROM PRODUCT RESIDUES MAY CREATE A HIGHLY FLAMMABLE OR EXPLOSIVE ATMOSPHERE INSIDE THE CONTAINER. DO NOT CUT, WELD OR GRIND USED CONTAINERS UNLESS THEY HAVE BEEN CLEANED THOROUGHLY INTERNALLY. AVOID DISPERSAL OF SPILLED MATERIAL AND

RUNOFF AND CONTACT WITH SOIL, WATERWAYS, DRAINS AND SEWERS.

**SECTION 14. TRANSPORT INFORMATION**



	DOT CLASSIFICATION	TDG CLASSIFICATION	MEXICO CLASSIFICATION
UN NUMBER	NOT REGULATED.	NOT REGULATED.	NOT REGULATED.
UN PROPER SHIPPING NAME			
TRANSPORT HAZARD CLASS (ES)			
PACKING GROUP			
ENVIRONMENTAL HAZARDS	NO.	NO.	NO.
ADDITIONAL INFORMATION	SPECIAL PROVISIONS: NOT APPLICABLE	SPECIAL PROVISIONS: NOT APPLICABLE	SPECIAL PROVISIONS: NOT APPLICABLE

	IATA	IMDG
UN NUMBER	NOT REGULATED.	NOT REGULATED.
UN PROPER SHIPPING NAME		
TRANSPORT HAZARD CLASS (ES)		
PACKING GROUP		
ENVIRONMENTAL HAZARDS	NO.	NO.
ADDITIONAL INFORMATION	SPECIAL PROVISIONS: NOT APPLICABLE	EMERGENCY SCHEDULES (EMS): NOT APPLICABLE

SPECIAL PRECAUTIONS FOR USER:  
 MULTI-MODAL SHIPPING DESCRIPTIONS ARE PROVIDED FOR INFORMATIONAL PURPOSES AND DO NOT CONSIDER CONTAINER SIZES. THE PRESENCE OF A SHIPPING DESCRIPTION FOR A PARTICULAR MODE OF TRANSPORT (SEA, AIR, ETC.), DOES NOT INDICATE THAT THE PRODUCT IS PACKAGED SUITABLY FOR THAT MODE OF TRANSPORT. ALL PACKAGING MUST BE REVIEWED FOR SUITABILITY PRIOR TO SHIPMENT, AND COMPLIANCE WITH THE APPLICABLE REGULATIONS IS THE SOLE RESPONSIBILITY OF THE PERSON OFFERING THE PRODUCT FOR TRANSPORT. PEOPLE LOADING AND UNLOADING DANGEROUS GOODS MUST BE TRAINED ON ALL OF THE RISKS DERIVING FROM THE SUBSTANCES AND ON ALL ACTIONS IN CASE OF EMERGENCY SITUATIONS.

TRANSPORT IN BULK ACCORDING TO ANNEX II OF MARPOL 73/78 AND THE IBC CODE:  
 NOT AVAILABLE.

**SECTION 15. REGULATORY INFORMATION**



U.S. FEDERAL REGULATIONS:

STATE REGULATIONS:

**SECTION 16. OTHER INFORMATION**



## HAZARDOUS MATERIAL INFORMATION SYSTEM (U.S.A.):

HEALTH 3  
FLAMMABILITY 2  
PHYSICAL HAZARDS 0

## CAUTION:

HMIS(R\*) RATINGS ARE BASED ON A 0-4 RATING SCALE, WITH 0 REPRESENTING MINIMAL HAZARDS OR RISKS, AND 4 REPRESENTING SIGNIFICANT HAZARDS OR RISKS ALTHOUGH HMIS(R\*) RATINGS ARE NOT REQUIRED ON SDSS UNDER 29 CFR 1910.1200, THE PREPARER MAY CHOOSE TO PROVIDE THEM. HMIS(R\*) RATINGS ARE TO BE USED WITH A FULLY IMPLEMENTED HMIS(R\*) PROGRAM. HMIS(R\*) IS A REGISTERED MARK OF THE NATIONAL PAINT & COATINGS ASSOCIATION (NPCA). HMIS(R\*) MATERIALS MAY BE PURCHASED EXCLUSIVELY FROM J. J. KELLER (800) 327-6868.

THE CUSTOMER IS RESPONSIBLE FOR DETERMINING THE PPE CODE FOR THIS MATERIAL.

## NOTICE TO READER:

IT IS RECOMMENDED THAT EACH CUSTOMER OR RECIPIENT OF THIS SAFETY DATA SHEET (SDS) STUDY IT CAREFULLY AND CONSULT RESOURCES, AS NECESSARY OR APPROPRIATE, TO BECOME AWARE OF AND UNDERSTAND THE DATA CONTAINED IN THIS SDS AND ANY HAZARDS ASSOCIATED WITH THE PRODUCT. THIS INFORMATION IS PROVIDED IN GOOD FAITH AND BELIEVED TO BE ACCURATE AS OF THE EFFECTIVE DATE HEREIN. HOWEVER, NO WARRANTY, EXPRESS OR IMPLIED, IS GIVEN. THE INFORMATION PRESENTED HERE APPLIES ONLY TO THE PRODUCT AS SHIPPED. THE ADDITION OF ANY MATERIAL CAN CHANGE THE COMPOSITION, HAZARDS AND RISKS OF THE PRODUCT. REGULATORY REQUIREMENTS ARE SUBJECT TO CHANGE AND MAY DIFFER BETWEEN VARIOUS LOCATIONS AND JURISDICTIONS. THE CUSTOMER/BUYER/USER IS RESPONSIBLE TO ENSURE THAT HIS ACTIVITIES COMPLY WITH ALL COUNTRY, FEDERAL, STATE, PROVINCIAL OR LOCAL LAWS. THE CONDITIONS FOR USE OF THE PRODUCT ARE NOT UNDER THE CONTROL OF THE MANUFACTURER; THE CUSTOMER/BUYER/USER IS RESPONSIBLE TO DETERMINE THE CONDITIONS NECESSARY FOR THE SAFE USE OF THIS PRODUCT. THE CUSTOMER/BUYER/USER SHOULD NOT USE THE PRODUCT FOR ANY PURPOSE OTHER THAN THE PURPOSE SHOWN IN THE APPLICABLE SECTION OF THIS SDS WITHOUT FIRST REFERRING TO THE SUPPLIER AND OBTAINING WRITTEN HANDLING INSTRUCTIONS. DUE TO THE PROLIFERATION OF SOURCES FOR INFORMATION SUCH AS MANUFACTURER-SPECIFIC SDS, THE MANUFACTURER CANNOT BE RESPONSIBLE FOR SDSS OBTAINED FROM ANY OTHER SOURCE.

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