

CLEAN HARBORS ENERGY & INDUSTRIAL SERVICES CORP.
15715 121A AVENUE
EDMONTON
AB CANADA
780-451-6969

PRODUCT: PARATENE® S627

CODE: 240216

Section 01: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MANUFACTURER/SUPPLIER..... CLEAN HARBORS ENERGY & INDUSTRIAL SERVICES CORP.
15715 121A AVENUE
EDMONTON
AB
T5V 1B1
780-451-6969

PREPARED BY..... Regulatory Affairs
PREPARATION DATE..... Oct06/11
PRODUCT NAME..... PARATENE® S627
PRODUCT CODE..... 240216
CHEMICAL FORMULA..... BLEND.
CHEMICAL FAMILY..... BLEND.
MATERIAL USE..... REFER TO TECHNICAL LITERATURE.
EMERGENCY PHONE NO..... 780-451-6969.

Section 02: COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Ingredients	%	Exposure Limit	C.A.S.#	LD/50, Route, Species	LC/50 Route, Species
HEAVY AROMATIC NAPHTHA CYCLIC AMINE	40-70 **	SEE SECTION 11 N.AV.	64742-94-5 **	SEE SECTION 11 N.AV.	SEE SECTION 11 N.AV.
ALKYL-ARYL SULPHONATE	**	N.AV.	**	N.AV.	N.AV.
ALKYL-ARYL DERIVATIVES	**	N.AV.	**	N.AV.	N.AV.

** THE CHEMICAL IDENTITIES
AND CONCENTRATIONS OF
THE THREE HAZARDOUS
COMPONENTS REPRESENT
CONFIDENTIAL BUSINESS
INFORMATION (CBI), AND
HAVE BEEN ISSUED
REGISTRY NUMBER 7088 BY
THE HMIRC ON JULY 20, 2007.

Section 03: HAZARDS IDENTIFICATION

ROUTE OF ENTRY:
SKIN CONTACT..... FREQUENT OR PROLONGED CONTACT MAY IRRITATE THE SKIN.. MAY CAUSE SEVERE IRRITATION. LOW TOXICITY. DERMAL EXPOSURE CAUSES CENTRAL NERVOUS SYSTEM EFFECTS IN LABORATORY ANIMALS.

EYE CONTACT..... VAPOUR CAN BE IRRITATING, BUT WILL NOT INJURE EYE TISSUE. LIQUID CAUSES SEVERE IRRITATION, EXPERIENCED AS DISCOMFORT OR PAIN, EXCESS BLINKING AND TEAR PRODUCTION, MARKED EXCESS REDNESS AND SWELLING OF THE CONJUNCTIVA, AND CHEMICAL BURNS OF THE CORNEA. LIQUID CAN CAUSE SEVERE IRRITATION, REDDENING, SWELLING AND CORNEAL BURNS.

INHALATION..... HIGH VAPOUR/AEROSOL CONCENTRATIONS (GREATER THAN APPROXIMATELY 1000 PPM) ARE IRRITATING TO THE EYES AND THE RESPIRATORY TRACT. NEGLIGIBLE HAZARD AT NORMAL TEMPERATURES (UP TO 38 DEG C). PROLONGED EXPOSURE TO HIGH VAPOUR CONCENTRATIONS CAN CAUSE HEADACHE, DIZZINESS, NAUSEA, BLURRED VISION AND CENTRAL NERVOUS SYSTEM DEPRESSION.

INGESTION..... SMALL AMOUNTS OF LIQUID ASPIRATED INTO THE RESPIRATORY SYSTEM DURING INGESTION OR FROM VOMITING MAY CAUSE MILD TO SEVERE PULMONARY INJURY AND POSSIBLY DEATH. INGESTION OF HIGH AMOUNTS CAN CAUSE HEADACHE, DIZZINESS, NAUSEA, BLURED VISION AND CENTRAL NERVOUS SYSTEM DEPRESSION.

EFFECTS OF ACUTE EXPOSURE..... SEE ROUTE OF ENTRY.
EFFECTS OF CHRONIC EXPOSURE

Section 04: FIRST AID MEASURES

INSTRUCTIONS:..... EYE CONTACT:. FLUSH EYES WITH LARGE AMOUNTS OF RUNNING WATER FOR AT LEAST 15 MINUTES. HOLD EYELIDS APART TO ENSURE RINSING OF THE ENTIRE SURFACE OF THE EYE AND LIDS WITH WATER. IF IRRITATION PERSISTS,

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Section 04: FIRST AID MEASURES

INSTRUCTIONS:..... GET MEDICAL ATTENTION. IN CASE OF SKIN CONTACT.. FLUSH SKIN WITH LARGE AMOUNTS OF WATER. REMOVE CONTAMINATED CLOTHING WHILE RINSING. REMOVE CONTAMINATED CLOTHING WHILE RINSING. WASH SKIN WITH SOAP AND WATER. IF IRRITATION PERSISTS, GET MEDICAL ATTENTION. IN CASE OF INGESTION, OBTAIN MEDICAL ATTENTION IMMEDIATELY. DO NOT INDUCE VOMITING. GUARD AGAINST ASPIRATION INTO LUNGS. HAVE INDIVIDUAL TURN ON TO THEIR LEFT SIDE. DO NOT GIVE ANYTHING BY MOUTH TO A CONVULSING OR UNCONSCIOUS PERSON. IF VOMITING OCCURS KEEP HEAD BELOW HIPS TO PREVENT ASPIRATION OF LIQUID INTO THE LUNGS. IF INHALED.. REMOVE VICTIM FROM FURTHER EXPOSURE AND RESTORE BREATHING, IF REQUIRED. SEEK MEDICAL ATTENTION.

NOTES TO PHYSICIAN:..... THE MAIN HAZARD FOLLOWING ACCIDENTAL INGESTION IS ASPIRATION OF THE LIQUID INTO THE LUNGS PRODUCING CHEMICAL PNEUMONITIS. CARDIAC ARRYTHMIAS HAVE BEEN REPORTED WITH SOLVENT EXPOSURE.

Section 05: FIRE FIGHTING MEASURES

FLAMMABILITY..... SEE FLASH POINT.
 IF YES, UNDER WHICH CONDITIONS?..... EXCESSIVE HEAT, SPARKS AND OPEN FLAME.
 EXTINGUISHING MEDIA..... CARBON DIOXIDE, DRY CHEMICAL, FOAM. WATER FOG.
 SPECIAL PROCEDURES..... DO NOT ENTER CONFINED FIRE SPACE WITHOUT ADEQUATE PROTECTIVE CLOTHING AND AN APPROVED POSITIVE PRESSURE SELF-CONTAINED BREATHING APPARATUS. FIREFIGHTERS SHOULD WEAR PROTECTIVE EQUIPMENT, SELF-CONTAINED BREATHING APPARATUS. DO NOT USE WATER EXCEPT AS A FOG. PRODUCT WILL FLOAT AND CAN BE REIGNITED ON SURFACE OF WATER. USE WATER SPRAY TO COOL FIRE-EXPOSED CONTAINERS AND STRUCTURES.

FLASH POINT (C), METHOD..... 63. (T.C.C.).
 AUTO IGNITION TEMPERATURE..... N.AV.
 UPPER FLAMMABLE LIMIT (% BY VOL.).... N.AV.
 LOWER FLAMMABLE LIMIT (% BY VOL.)... N.AV.
 EXPLOSION DATA..... N.AV.
 EXPLOSIVE POWER..... N.AV.
 RATE OF BURNING..... N.AV.
 SENSITIVITY TO STATIC DISCHARGE..... YES.
 SENSITIVITY TO IMPACT..... NO.
 HAZARDOUS COMBUSTION PRODUCTS.. FUMES, SMOKE AND CARBON MONOXIDE, CARBON DIOXIDE, OXIDES OF SULFUR, OXIDES OF NITROGEN.

Section 06: ACCIDENTAL RELEASE MEASURES

LEAK/SPILL..... ELIMINATE ALL SOURCES OF IGNITION. HANDLING EQUIPMENT MUST BE GROUNDED. ISOLATE HAZARD AREA AND RESTRICT ACCESS. TRY TO WORK UP WIND OF SPILL. AVOID DIRECT CONTACT WITH MATERIAL. WEAR APPROPRIATE BREATHING APPARATUS (IF APPLICABLE) AND PROTECTIVE CLOTHING. STOP LEAK ONLY IF SAFE TO DO SO. DIKE AND CONTAIN LAND SPILLS; CONTAIN WATER SPILLS BY BOOMING. FOR LARGE SPILLS REMOVE BY MECHANICAL MEANS AND PLACE IN CONTAINERS. ABSORB RESIDUE OR SMALL SPILLS WITH ABSORBENT MATERIAL AND REMOVE TO NON-LEAKING CONTAINERS FOR DISPOSAL. FLUSH AREA WITH WATER TO REMOVE TRACE RESIDUE. AVOID DISCHARGE TO NATURAL WATERS AND SEWERS.

Section 07: HANDLING AND STORAGE

HANDLING PROCEDURES AND AVOID INGESTION. AVOID INHALING. AVOID CONTACT WITH EYES, SKIN AND EQUIPMENT CLOTHING. USE WITH ADEQUATE VENTILATION. WEAR PROTECTIVE EQUIPMENT DURING HANDLING. KEEP AWAY FROM IGNITION SOURCES. VAPOURS MAY ACCUMULATE AND TRAVEL TO DISTANT IGNITION SOURCES AND FLASHBACK. EMPTY PRODUCT CONTAINERS MAY CONTAIN PRODUCT RESIDUE. FOLLOW LABEL WARNINGS EVEN AFTER CONTAINER IS EMPTIED. GROUND ALL EQUIPMENT. NEVER USE PRESSURE TO EMPTY DRUMS - CONTAINER IS NOT A PRESSURE VESSEL. DO NOT CUT, DRILL, GRIND, WELD OR PERFORM SIMILAR OPERATIONS ON OR NEAR CONTAINERS. WASH CONTAMINATED CLOTHING BEFORE RE-USE.

STORAGE NEEDS..... STORE IN A COOL, DRY, WELL VENTILATED AREA, AWAY FROM HEAT AND IGNITION SOURCES.

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Section 08: EXPOSURE CONTROLS/PERSONAL PROTECTION

GLOVES/ TYPE.....	WEAR IMPERVIOUS GLOVES. CONSULT GLOVE MANUFACTURER TO DETERMINE APPROPRIATE TYPE OF GLOVE FOR GIVEN APPLICATION.
RESPIRATORY/TYPE.....	IF EXPOSURE EXCEEDS OCCUPATIONAL EXPOSURE LIMITS, WEAR A NIOSH-APPROVED RESPIRATOR. USE EITHER AN ATMOSPHERE-SUPPLYING RESPIRATOR OR AN AIR-PURIFYING RESPIRATOR FOR ORGANIC VAPOURS. PROPER EQUIPMENT FOR HIGH CONCENTRATIONS INCLUDES AN ATMOSPHERE SUPPLIED, POSITIVE PRESSURE DEMAND, SELF CONTAINED OR AIR-SUPPLIED BREATHING APPARATUS.
EYE/TYPE.....	CHEMICAL SAFETY GOGGLES. FACE SHIELD.
FOOTWEAR/TYPE.....	CHEMICAL RESISTANT.
CLOTHING/TYPE.....	WEAR IMPERVIOUS PROTECTIVE CLOTHING.
OTHER/TYPE.....	EYE BATH AND SAFETY SHOWER.
ENGINEERING CONTROLS.....	CONTROL AIRBORNE CONCENTRATIONS BELOW THE EXPOSURE GUIDELINE. GENERAL: HIGHLY RECOMMENDED FOR ALL INDOOR SITUATIONS TO CONTROL FUGITIVE EMISSIONS. ELECTRICAL AND MECHANICAL EQUIPMENT SHOULD BE EXPLOSION-PROOF. LOCAL: ALSO RECOMMENDED WHERE MECHANICAL VENTILATION IS INEFFECTIVE IN CONTROLLING AIRBORNE CONCENTRATIONS BELOW THE RECOMMENDED OCCUPATIONAL EXPOSURE LIMIT. MAKE-UP AIR SHOULD ALWAYS BE SUPPLIED TO BALANCE AIR EXHAUSTED (EITHER GENERALLY OR LOCALLY).

Section 09: PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE.....	LIQUID.
ODOUR.....	CHARACTERISTIC.
ODOUR THRESHOLD.....	N.AV.
VAPOUR PRESSURE (MMHG).....	<0.4 KPA @ 38 C.
VAPOUR DENSITY (AIR=1).....	>1.
EVAPORATION RATE.....	0.75.
BOILING POINT.....	INITIAL 162-242 C.
PH.....	3.2-3.5 (2% AQUEOUS SOLUTION).
SPECIFIC GRAVITY (WATER=1).....	0.92. (15.5 C).
VOLATILE.....	95%.
SOLUBILITY IN WATER (% W/W).....	PARTIAL.
COEFFICIENT OF WATER/OIL DIST.....	N.AP.

Section 10: STABILITY AND REACTIVITY

CHEMICAL STABILITY:	
YES.....	STABLE UNDER NORMAL CONDITIONS AND STORAGE.
NO, WHICH CONDITIONS?.....	HIGH TEMPERATURES.
COMPATABILITY WITH OTHER SUBSTANCES:	
YES	
NO, WHICH ONES?.....	STRONG ACIDS. STRONG OXIDIZING AGENTS.
REACTIVITY CONDITIONS?.....	AVOID EXCESSIVE HEAT, OPEN FLAMES AND ALL IGNITION SOURCES.
HAZARDOUS PRODUCTS OF DECOMPOSITION.....	SEE HAZARDOUS COMBUSTION PRODUCTS.
HAZARDOUS POLYMERIZATION.....	WILL NOT OCCUR.

Section 11: TOXICOLOGICAL INFORMATION

EXPOSURE LIMIT OF MATERIAL.....	HEAVY AROMATIC NAPHTHA: PEL 100 PPM.
LC 50 OF MATERIAL, SPECIES & ROUTE..	HEAVY AROMATIC NAPHTHA: >590 MG/M3 (RAT-4 HR). CYCLIC AMINE: 5.1 MG/L (RAT-4 HR).
LD 50 OF MATERIAL, SPECIES & ROUTE..	HEAVY AROMATIC NAPHTHA: 3200 MG/KG (RAT-ORAL); 1800 MG/KG (DERMAL-RABBIT). CYCLIC AMINE: 3500 MG/KG (ORAL-RAT); 4000-8000 MG/KG (RAT-DERMAL).
CARCINOGENICITY OF MATERIAL.....	NONE.
REPRODUCTIVE EFFECTS.....	N.AV.
TERATOGENICITY.....	CYCLIC AMINE HAS CAUSED TERATOGENIC EFFECTS IN THE PRESENCE OF MATERNAL AND FETOTOXIC EFFECTS IN THE ABSENCE OF MATERNAL TOXICITY IN LABORATORY ANIMALS.
IRRITANCY OF MATERIAL.....	SEE SECTION 03.
SENSITIZING CAPABILITY OF MATERIAL.....	SEE SECTION 03.
SYNERGISTIC MATERIALS.....	NO DATA.
OTHER INFORMATION.....	INGESTION OF THE CYCLIC AMINE HAS PRODUCED KIDNEY EFFECTS IN LABORATORY ANIMALS.

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Section 12: ECOLOGICAL CONSIDERATIONS

ENVIRONMENTAL TOXICITY DO NOT ALLOW PRODUCT OR RUNOFF FROM FIRE CONTROL TO ENTER STORM
INFORMATION OR SANITARY SEWERS, LAKES, RIVERS, STREAMS, OR PUBLIC WATERWAYS.

Section 13: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL..... DISPOSE IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, PROVINCIAL, AND
LOCAL ENVIRONMENTAL REGULATIONS.

Section 14: TRANSPORT INFORMATION

TDG CLASSIFICATION..... NOT REGULATED.
SPECIAL SHIPPING INSTRUCTIONS..... N.AP.

Section 15: REGULATORY INFORMATION

WHMIS CLASSIFICATION..... B3. D2B.
CPR COMPLIANCE..... THIS PRODUCT HAS BEEN CLASSIFIED IN ACCORDANCE WITH THE HAZARD
CRITERIA OF THE CPR AND THE MSDS CONTAINS ALL THE INFORMATION
REQUIRED BY THE CPR.

Section 16: OTHER INFORMATION

N.AV.=NOT AVAILABLE
N.AP.=NOT APPLICABLE