

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

PRODUCT: PARATENE® D-731

CODE: 242377

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..... Sep30/11
PRODUCT NAME..... PARATENE® D-731
PRODUCT CODE..... 242377
CHEMICAL FORMULA..... 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	60-100	SEE SECTION 11	64742-94-5	SEE SECTION 11	SEE SECTION 11
N-METHYL PYRROLIDONE	5-10	SEE SECTION 11	872-50-4	SEE SECTION 11	SEE SECTION 11
1-PROPOXY-2-PROPANOL	3-7	SEE SECTION 11	1569-01-3	SEE SECTION 11	SEE SECTION 11
1-BUTOXY-2-PROPANOL	1-5	SEE SECTION 11	5131-66-8	SEE SECTION 11	SEE SECTION 11
2-PHENOXYPROPANOL	1-5	SEE SECTION 11	4169-04-4	SEE SECTION 11	SEE SECTION 11

Section 03: HAZARDS IDENTIFICATION

ROUTE OF ENTRY:
SKIN CONTACT..... IRRITANT. FREQUENT OR PROLONGED CONTACT MAY CAUSE IRRITATION, DRYING OR CRACKING OF THE SKIN.
SKIN ABSORPTION..... N.AV.
EYE CONTACT..... MAY CAUSE EYE IRRITATION OR BURNS. AVOID DIRECT CONTACT.
INHALATION..... IRRITATION OF THE NOSE AND THROAT, HEADACHE, NAUSEA, VOMITING, DIZZINESS, FATIGUE, LIGHT HEADEDNESS, IRRITABLE BEHAVIOUR, LOSS OF APPETITE, REDUCED COORDINATION, UNCONSCIOUSNES.
INGESTION..... INGESTION IS HARMFUL, MAY CAUSE GATROINTESTINAL IRRITAITON, BURNS TO THE MOUTH AND THROAT, NAUSEA AND VOMITING. SEVERE LUNG DAMAGE IF ASPIRATED INTO THE LUNGS. CHRONIC INGESTION OF HIGH DOSES OF THE CYCLIC AMINE HAS CAUSED ADVERSE EFFECTS TO THE KIDNEYS OF LABORATORY ANIMALS.
EFFECTS OF ACUTE EXPOSURE..... REFER TO ROUTE OF ENTRY.
EFFECTS OF CHRONIC EXPOSURE..... REFER TO ROUTE OF ENTRY.

Section 04: FIRST AID MEASURES

INSTRUCTIONS:..... EYE CONTACT:.. FLUSH EYES IMMEDIATELY WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES. GET MEDICAL ATTENTION IMMEDIATELY. SKIN CONTACT.. FLUSH IMMEDIATELY WITH COPIOUS AMOUNT OF WATER FOR AT LEAST 15 MINUTES. REMOVE CONTAMINATED CLOTHING. GET MEDICAL ATTENTION IF IRRITATION OCCURS AND PERSISTS. INGESTION:.. IN CASE OF INGESTION, SEEK MEDICAL ATTENTION. DO NOT INDUCE VOMITING. IF CONSCIOUS GIVE SMALL AMOUNTS OF WATER. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. IF VOMITING OCCURS NATURALLY, HAVE VICTIM LEAN FORWARD TO REDUCE RISK OF ASPIRATION. INHALATION:.. REMOVE TO FRESH AIR. FOR BREATHING DIFFICULTY GIVE OXYGEN OR IF BREATHING HAS STOPPED, GIVE ARTIFICIAL RESPIRATION. OBTAIN MEDICAL ATTENTION IMMEDIATELY.

Section 05: FIRE FIGHTING MEASURES

FLAMMABILITY..... SEE FLASH POINT.
IF YES, UNDER WHICH CONDITIONS?
EXTINGUISHING MEDIA..... CARBON DIOXIDE, DRY CHEMICAL, ALCOHOL FOAM, WATER FOG.
SPECIAL PROCEDURES..... WEAR FULL PROTECTIVE EQUIPMENT INCLUDING A SELF-CONTAINED BREATHING APPARATUS. USE WATER TO COOL FIRE EXPOSED CONTAINERS. TOXIC GASES LIBERATED UNDER FIRE CONDITIONS.
FLASH POINT (C), METHOD..... 63. (PMCC).

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Section 05: FIRE FIGHTING MEASURES

AUTO IGNITION TEMPERATURE..... N.A.V.
 UPPER FLAMMABLE LIMIT (% BY VOL.)... N.A.V.
 LOWER FLAMMABLE LIMIT (% BY VOL.)... N.A.V.
 EXPLOSION DATA..... N.A.V.
 EXPLOSIVE POWER..... N.A.V.
 RATE OF BURNING..... N.A.V.
 SENSITIVITY TO STATIC DISCHARGE..... N.A.V.
 SENSITIVITY TO IMPACT..... N.A.V.
 UNUSUAL FIRE AND EXPLOSION CONTAINERS MAY EXPLODE IN HEAT OF FIRE. COOL WITH WATER.
 HAZARDS
 HAZARDOUS COMBUSTION PRODUCTS.. SEE HAZARDOUS DECOMPOSITION PRODUCTS.

Section 06: ACCIDENTAL RELEASE MEASURES

LEAK/SPILL..... ONLY TRAINED AND PROPERLY PROTECTED PERSONNEL SHOULD BE INVOLVED IN SPILL CLEANUP OPERATIONS. AVOID RUNOFF OR RELEASE TO SEWER OR WATERWAYS. WEAR PROPER PROTECTIVE EQUIPMENT. STOP LEAK IF SAFE TO DO SO. DIKE SPILL. CONTAIN AND ABSORB SPILL WITH AN INERT MATERIAL. COLLECT AND CONTAIN IN SUITABLE DISPOSAL CONTAINERS. DISPOSE IN ACCORDANCE WITH LOCAL, PROVINCIAL AND FEDERAL REGULATIONS.

Section 07: HANDLING AND STORAGE

HANDLING PROCEDURES AND AVOID CONTACT WITH EYES, SKIN, AND CLOTHING. AVOID BREATHING MIST OR EQUIPMENT VAPOUR. WEAR PROTECTIVE EQUIPMENT DURING HANDLING. USE ONLY WITH ADEQUATE VENTILATION. KEEP AWAY FROM HEAT, SPARKS AND FLAME. KEEP CONTAINERS CLOSED WHEN NOT IN USE. EMPTY CONTAINERS MAY CONTAIN HAZARDOUS PRODUCT RESIDUES. FOLLOW LABEL WARNINGS EVEN AFTER CONTAINER IS EMPTIED. HANDLE IN ACCORDANCE WITH GOOD INDUSTRIAL HYGIENE AND SAFETY PRACTICES.
 STORAGE NEEDS..... STORE IN A COOL DRY AREA. KEEP THE CONTAINER TIGHTLY CLOSED WHEN NOT IN USE.

Section 08: EXPOSURE CONTROLS/PERSONAL PROTECTION

GLOVES/ TYPE..... WEAR IMPERVIOUS GLOVES. CONTACT GLOVE MANUFACTURER FOR SPECIFIC INFORMATION.
 RESPIRATORY/TYPE..... ATMOSPHERIC LEVELS SHOULD BE MAINTAINED BELOW THE EXPOSURE GUIDELINE. WHEN RESPIRATORY PROTECTION IS REQUIRED FOR CERTAIN OPERATIONS, USE AN NIOSH APPROVED AIR-PURIFYING RESPIRATOR. IN MISTY ATMOSPHERES, USE AN APPROVED MIST RESPIRATOR.
 EYE/TYPE..... SAFETY GLASSES WITH SIDE SHIELDS. AVOID EYE CONTACT.
 FOOTWEAR/TYPE..... IMPERVIOUS FOOTWEAR.
 CLOTHING/TYPE..... WEAR IMPERVIOUS PROTECTIVE CLOTHING.
 OTHER/TYPE..... EYE BATH AND SAFETY SHOWER.
 ENGINEERING CONTROLS..... CONTROL AIRBORNE CONCENTRATIONS BELOW THE EXPOSURE GUIDELINE. GENERAL AND LOCAL EXHAUST VENTILATION AS RECOMMENDED BY GOOD MANUFACTURING PRACTICES SHOULD BE SUFFICIENT FOR NORMAL OPERATIONS.

Section 09: PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE..... LIQUID.
 ODOUR..... PUNGENT ODOUR.
 ODOUR THRESHOLD..... N.A.V.
 VAPOUR PRESSURE (MMHG)..... N.A.V.
 VAPOUR DENSITY (AIR=1)..... N.A.V.
 EVAPORATION RATE..... N.A.V.
 BOILING POINT..... 200 C.
 FREEZING/MELTING POINT..... -25 C.
 PH..... 8 - 8.5 (2% SOLUTION) .
 SPECIFIC GRAVITY (WATER=1)..... ~0.94.
 SOLUBILITY IN WATER (% W/W)..... INSOLUBLE.
 COEFFICIENT OF WATER/OIL DIST..... N.A.V.

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Section 10: STABILITY AND REACTIVITY

CHEMICAL STABILITY:

YES..... STABLE.
 NO, WHICH CONDITIONS?..... EXPOSURE TO EXCESSIVE HEAT.

COMPATABILITY WITH OTHER
SUBSTANCES:

YES
 NO, WHICH ONES?..... STRONG ACIDS. OXIDIZING AGENTS.
 HAZARDOUS PRODUCTS OF CARBON DIOXIDE, CARBON MONOXIDE AND OTHER HAZARDOUS COMPOUNDS.
 DECOMPOSITION NITROGEN, SULPHUR.
 HAZARDOUS POLYMERIZATION..... WILL NOT OCCUR.

Section 11: TOXICOLOGICAL INFORMATION

EXPOSURE LIMIT OF MATERIAL..... NOT DETERMINED.
 LC 50 OF MATERIAL, SPECIES & ROUTE.. NAPHTHA, HEAVY AROMATIC: >3800 MG/M3 (4 HR), INHALATION-RAT.
 1-PROPOXY-2-PROPANOL: >2500 MG/L RAT.
 LD 50 OF MATERIAL, SPECIES & ROUTE.. ORAL.: NAPHTHA, HEAVY AROMATIC: <10 ML/KG (ORAL-RAT), >4 ML/KG
 (DERMAL-RAT). 1-PROPOXY-2-PROPANOL: >500 MG/KG RAT-MALE,
 1-BUTOXY-2-PROPANOL: >500 MG/KG RAT-FEMALE, 2-PHENOXYPROPANOL: >500
 MG/KG RAT, 2 N-METHYLPYRROLIDONE: >500 MG/KG RAT. DERMAL.: DERMAL
 LD50 - GUINEA PIG: >2000 MG/KG. NAPHTHA, HEAVY AROMATIC: >4 ML/KG
 (DERMAL-RAT). 1-PROPOXY-2-PROPANOL: >1000 MG/KG RABBIT,
 1-BUTOXY-2-PROPANOL: >1000 MG/KG RABBIT, 2-PHENOXYPROPANOL: >1000
 MG/KG RABBIT, 2 N-METHYLPYRROLIDONE: >1000 MG/KG RABBIT (AIHA WEEL
 EXPOSURE LIMIT 10 PPM FOR 8 HOURS).
 CARCINOGENICITY OF MATERIAL..... NONE KNOWN.
 IRRITANCY OF MATERIAL..... SEE SECTION 03.
 SENSITIZING CAPABILITY OF MATERIAL. SEE SECTION 03.
 SYNERGISTIC MATERIALS..... N.AV.

Section 12: ECOLOGICAL CONSIDERATIONS

NO DATA AVAILABLE.

Section 13: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL..... IN ACCORDANCE WITH MUNICIPAL, PROVINCIAL AND FEDERAL 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