

PRODUCT IDENTIFICATION

PRODUCT NAME CLOVE LEAF OIL

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HAZARD IDENTIFICATION

GHS CLASSIFICATION

ASPIRATION HAZARD - CATEGORY 1
ACUTE TOXICITY (DERMAL) - CATEGORY 5
ACUTE TOXICITY (ORAL) - CATEGORY 5
EYE IRRITATION - CATEGORY 2A
ENVIRONMENTAL HAZARD (ACUTE) - CATEGORY 2A
SKIN IRRITATION - CATEGORY 3
SKIN SENSITIZATION - CATEGORY 1

GHS PICTOGRAM



GHS SIGNAL WORD

DANGER

GHS HAZARD STATEMENTS

H304 - MAY BE FATAL IF SWALLOWED AND ENTERS AIRWAYS
H313 - MAY BE HARMFUL IN CONTACT WITH SKIN (4900)
H303 - MAY BE HARMFUL IF SWALLOWED (2650)
H319 - CAUSES SERIOUS EYE IRRITATION
H401 - TOXIC TO AQUATIC LIFE
H316 - CAUSES MILD SKIN IRRITATION
H317 - MAY CAUSE AN ALLERGIC SKIN REACTION

MATERIAL SAFETY DATA SHEET

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GHS PRECAUTIONARY STATEMENTS

P261 - AVOID BREATHING FUMES
P264 - WASH HANDS THOROUGHLY AFTER HANDLING
P272 - CONTAMINATED WORK CLOTHING SHOULD NOT BE ALLOWED OUT OF THE WORK PLACE
P273 - AVOID RELEASE TO THE ENVIRONMENT
P280 - WEAR PROTECTIVE GLOVES/CLOTHING/EYE PROTECTION AND FACE PROTECTION
P301/310 - IF SWALLOWED: IMMEDIATELY CALL A POISON CENTER OR DOCTOR

P302/352 - IF ON SKIN: WASH WITH PLENTY OF SOAP AND WATER
P305/351/338 - IF IN EYES: RINSE CAUTIOUSLY WITH WATER FOR SEVERAL MINUTES. REMOVE CONTACT LENSES IF PRESENT AND EASY TO DO. CONTINUE RINSING
P312 - CALL A POISON CENTER OR DOCTOR IF YOU FEEL UNWELL
P331 - DO NOT INDUCE VOMITING
P333/313 - IF SKIN IRRITATION OR RASH OCCURS: GET MEDICAL ADVICE/ATTENTION
P337/313 - IF EYE IRRITATION PERSISTS: GET MEDICAL ADVICE/ATTENTION
P363 - WASH CONTAMINATED CLOTHING BEFORE REUSE
P405 - STORE LOCKED UP
P501 - DISPOSE OF CONTENTS/CONTAINER IN ACCORDANCE WITH NATIONAL REGULATION

POTENTIAL HEALTH EFFECTS

IRRITANT
IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN.
KEEP OUT OF REACH OF CHILDREN.
WEAR SUITABLE GLOVES AND EYE/FACE PROTECTION.

COMPOSITION

BOTANICAL NAME	(EUGENIA CARYOPHYLLATA)
MOLECULAR FORMULA	N/A
MOLECULAR WEIGHT	N/A
CAS NO.	8000-34-8
EINECS NO.	284-638-7
FEMA NO.	2325

EMERGENCY AND FIRST AID PROCEDURES

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EYE CONTACT	REMOVE CONTACT LENSES. IMMEDIATELY FLUSH EYES WITH PLENTY OF CLEAN WATER FOR AN EXTENDED TIME, NOT LESS THAN 5 MINUTES. FLUSH LONGER IF THERE IS ANY INDICATION OF RESIDUAL CHEMICAL IN EYE. ENSURE ADEQUATE FLUSHING OF THE EYES BY SEPARATING THE EYELIDS WITH FINGERS AND ROLL EYES IN A CIRCULAR MOTION.
SKIN CONTACT	IMMEDIATELY REMOVE CONTAMINATED CLOTHING AND SHOES. WASH THE AFFECTED AREA WITH PLENTY OF SOAP AND WATER UNTIL NO EVIDENCE OF THE CHEMICAL REMAINS(AT LEAST 15-20 MINUTES). LAUNDRER CLOTHING BEFORE RE-USE. IF IRRITATION DEVELOPS, CALL A PHYSICIAN.
INGESTION	IN THE EVENT OF ACCIDENTAL INGESTION, DO NOT INDUCE VOMITING. RINSE OUT THE MOUTH WITH WATER. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. GET MEDICAL ATTENTION IMMEDIATELY.
INHALATION	IF AFFECTED, REMOVE TO FRESH AIR. IF BREATHING IS DIFFICULT, GIVE OXYGEN. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION.

FIRE AND EXPLOSION INFORMATION

EXTINGUISHING MEDIA	() WATER (X) FOAM (X) CO2 (X) DRY CHEMICAL
UNUSUAL FIRE AND EXPLOSION HAZARDS	IRRITATING OR TOXIC SUBSTANCES MAY BE EMITTED UPON BURNING, COMBUSTION OR DECOMPOSITION.
FIREFIGHTING PROCEDURES	WEAR SELF-CONTAINED BREATHING APPARATUS(SCBA) EQUIPPED WITH A FULL FACEPIECE AND OPERATED IN A PRESSURE DEMAND MODE (OR OTHER POSITIVE PRESSURE MODE) AND APPROVED PROTECTIVE CLOTHING. PERSONNEL WITHOUT RESPIRATORY PROTECTION MUST LEAVE THE AREA TO PREVENT SIGNIFICANT EXPOSURE TO HAZARDOUS GASES FROM COMBUSTION, BURNING OR DECOMPOSITION. IN AN ENCLOSED OR POORLY VENTILATED AREA, WEAR SCBA DURING THE CLEANUP IMMEDIATELY AFTER A FIRE AS WELL AS DURING THE ATTACK PHASE OF THE FIREFIGHTING OPERATIONS.

ACCIDENTAL RELEASE MEASURES

CONTAINMENT TECHNIQUES	PREVENT ENTRY INTO SEWERS AND WATERWAYS. CONTAIN BY DIKING WITH SAND, EARTH OR OTHER NON-COMBUSTIBLE MATERIAL. IF SPILLED IN AN ENCLOSED AREA, VENTILATE.
CLEAN-UP TECHNIQUES	WEAR PROPER PERSONAL PROTECTIVE CLOTHING AND EQUIPMENT. DO NOT FLUSH INTO PUBLIC SEWER, WATER SYSTEMS OR SURFACE WATERS. ELIMINATE SOURCES OF IGNITION. SOAK UP LARGE SPILL RESIDUE AND SMALL SPILLS WITH AN INERT ABSORBENT. PLACE INTO LABELED, CLOSED CONTAINER.

HANDLING AND STORAGE

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HANDLING

WASH HANDS THOROUGHLY AFTER HANDLING THIS PRODUCT. ALWAYS WASH UP BEFORE EATING, SMOKING, OR USING THE FACILITIES. USE UNDER WELL-VENTILATED CONDITIONS. AVOID EYE AND SKIN CONTACT. AVOID INHALATION OF AEROSOL, MIST, SPRAY, FUME OR VAPOR. AVOID DRINKING TASTING, SWALLOWING, OR INGESTING THIS PRODUCT. PREOVIDE EYEWASH FOUNTAINS AND SAFETY SHOWERS IN THE WORK AREA.

STORAGE

EMPTY CONTAINER CONTAINS RESIDUAL PRODUCT WHICH MAY EXHIBIT HAZARDS OF THE PRODUCT. STORE IN A COOL AND DRY, UNDER WELL-VENTILATED CONDITIONS. DO NOT STORE IN OPEN, UNLABELED OR MISLABELED CONTAINERS. KEEP CONTAINER CLOSED WHEN NOT IN USE. PRODUCT CAN EASILY OXIDIZE. IT IS RECOMMENDED THAT OPENED CONTAINERS BE PADDED WITH NITROGEN. KEEP AWAY FROM HEAT, SPARKS AND OPEN FLAMES.

EXPOSURE CONTROLS

OSHA TWA	NOT DETERMINED
ACGIH TWA	NOT DETERMINED
NIOSH TWA	NOT DETERMINED
OSHA PEL	NOT DETERMINED
ACGIH STEL	NOT DETERMINED
NIOSH STEL	NOT DETERMINED

PHYSICAL DATA

APPEARANCE / ODOR	PALE YELLOW LIQUID WITH TYPICAL SPICY ODOR CHARACTERISTIC OF CLOVE
SPECIFIC GRAVITY (25C)	1.036 - 1.046
REFRACTIVE INDEX (20C)	1.531 - 1.535
BOILING POINT	251 °C
SOLUBILITY IN WATER	INSOLUBLE
FLASH POINT	>200 °F
MELTING POINT	N/A

REACTIVITY INFORMATION

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STABILITY	STABLE UNDER NORMAL CONDITIONS
CONDITIONS TO AVOID	EXCESSIVE HEAT, OPEN FLAMES AND OTHER SOURCES OF IGNITION.
MATERIALS TO AVOID	STRONG OXIDIZING AGENTS, STRONG REDUCING AGENTS, AND STRONG BASES.
HAZARDOUS BY PRODUCTS	CARBON MONOXIDE AND CARBON DIOXIDE. HAZARDOUS POLYMERIZATION WILL NOT OCCUR.

TOXICOLOGY INFORMATION

ORAL (LD50)	RAT - 2650 mg/kg
DERMAL (LD50)	RABBIT - 5.0 g/kg
SKIN IRRITATION	NOT DETERMINED
EYE IRRITATION	NOT DETERMINED
INHALATION (LC50)	NOT DETERMINED
MUTAGENICITY	NOT DETERMINED
PHOTOXICITY	NOT DETERMINED
HUMAN DATA	NOT DETERMINED
CARCINOGENICITY	NEGATIVE
REPRODUCTIVE TOXIN	NEGATIVE

ECOLOGICAL INFORMATION

BIODEGRADABILITY	READILY BIODEGRADABLE: NOT DETERMINED INHERENTLY BIODEGRADABLE: NOT DETERMINED
ECOTOXICITY	FISH: NOT DETERMINED ALGAE: NOT DETERMINED DAPHNIA: NOT DETERMINED BACTERIA: NOT DETERMINED

DISPOSAL INFORMATION

WASTE DISPOSAL METHOD	FEDERAL, STATE AND LOCAL REGULATIONS WHERE THE WATER MATERIAL IS GENERATED, TREATED, AND/OR DISPOSED OF MUST BE EXAMINED TO VERIFY THE APPROPRIATE WASTE CLASSIFICATION. INCINERATE WASTER PRODUCT WHEN IN LIQUID FORM IN A PROPERLY PERMITTED INCINERATION FACILITY IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL REGULATIONS. LIQUIDS CANNOT BO DISPOSED OF IN A LANDFILL. DO NOT RELEASE TO WATERWAYS. WASH WATER SHOULD BE CONTAINED AND SENT TO A WASTE FACILITY FOR PROPER HANDLING AND DISPOSAL IN ACCORDANCE WITH ALL APPLICABLE STATE, PROVINCIAL, AND FEDERAL LAWS AND REGULATIONS.
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TRANSPORT INFORMATION

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US DOT HAZARD CLASS	NOT REGULATED
LAND TRANSPORT (ADR/RID)	NOT REGULATED
MARINE TRANSPORT (IMDG)	NOT REGULATED
AIR TRANSPORT (IATA)	NOT REGULATED

REGULATORY INFORMATION

SYMBOL	Xn- HARMFUL
R-PHRASE	36 - IRRITATING TO EYES 43 - MAY CAUSE SENSITIZATION BY SKIN CONTACT 65 - HARMFUL: MAY CAUSE LUNG DAMAGE IF SWALLOWED
S-PHRASE	S24 - AVOID CONTACT WITH SKIN S37 - WEAR SUITABLE GLOVES S62 - IF SWALLOWED, DO NOT INDUCE VOMITING: SEEK MEDICAL ADVICE IMMEDIATELY AND SHOW THIS CONTAINER OR LABEL

FURTHER INFORMATION

FURTHER INFORMATION	THE ABOVE INFORMATION IS BELIEVED TO BE CORRECT BUT DOES NOT PURPORT TO BE ALL INCLUSIVE AND SHOULD BE USED ONLY AS A GUIDE. THE INFORMATION IN THIS DOCUMENT IS BASED ON THE PRESENT STATE OF OUR KNOWLEDGE AND IS APPLICABLE TO THE PRODUCT WITH REGARD TO APPROPRIATE SAFETY PRECAUTIONS.
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