

## **Material Safety Data Sheet**

**EU Regulation: 1907/2006** 

1.1 PRODUCT IDENTIFICATION					
PRODUCT NAME	Lemongrass, Essential Oil Organic				
BIOLOGICAL DEFINITION	CYMBOPOGON FLEXUOSUS HERB OIL IS AN ESSENTIAL OIL OBTAINED FROM THE HERBS OF THE LEMON GRASS, CYMBOPOGON FLEXUOSUS, GRAMINEAE.				
INCI NAME	CYMBOPOGON FLEXUOSUS HERB OIL				
SYNONYMS & TRADE NAMES	-				
INTERNAL PRODUCT CODE	ко260				
CAS-No	91844-92-7	EC No.	295-161-9	EINECS No.	295-161-9
.2 DETAILS OF THE SUPPLIER OF THE SAFETY DAT	A SHEET				
COMPANY ADDRESS	Bomar Sea Road, Kilcoole, Co. Wicklow				
EMAIL	info@Bomar.ie				
.3 PETAILS OF THE SUPPLIER OF THE SAFETY DAT	A SHEET				
	John Byrne 012875110				



SECTION 2: HAZARDS IDENTIFICATION		
2.1		
CLASSIFICATION OF THE SUBSTANCE OR MIXTURE	THE FULL TEXT FOR ALL HAZARD STATEMENTS IS DISPLAYED IN SECTION 16.	
CLASSIFICATION (67/548/EEC)	NO ADDITIONAL DATA AVAILABLE.	
CLASSIFICATION (EU1272/2008)	PHYSICAL AND CHEMICAL HAZARDS: NOT CLASSIFIED.  HUMAN HEALTH ASP: SKIN IRRIT. 2 - H315 SKIN SENS. 1 - H317 EYE DAM. 1 - H318  ENVIRONMENT: AQUATIC CHRONIC 2 - H411	
2.2 Label Elements	Label in accordance with Regulation (EC) No 1272/2008.	
GHS LABEL	GHS05 GHS09 GHS09	
Signal Word	DANGER.	
Contains	CITRAL, GERANIOL	
HAZARDS STATEMENT	H315: Causes skin irritation H317: May cause an allergic skin reaction H318: Causes serious eye damage H411: Toxic to aquatic life with long-lasting effects	
Precautionary Statements	P233: KEEP CONTAINER TIGHTLY CLOSED P262: DO NOT GET IN EYES, ON SKIN, OR ON CLOTHING P273: AVOID RELEASE TO THE ENVIRONMENT P280: WEAR PROTECTIVE GLOVES/CLOTHING/EYE-PROTECTION/FACE PROTECTION  P301 + P310: IMMEDIATELY CALL A POISON CENTRE OR DOCTOR P302+P352: IF ON SKIN: WASH WITH PLENTY OF WATER/ P305 + P351 + P338 IF IN EYES: RINSE CAUTIOUSLY WITH WATER FOR SEVERAL MINUTES. REMOVE CONTACT LENSES, IF PRESENT AND EASY TO DO. CONTINUE RINSING P331: DO NOT INDUCE VOMITING P391: COLLECT SPILLAGE  P405: STORE LOCKED UP  P501: DISPOSE OF CONTENTS/CONTAINERS IN ACCORDANCE WITH LOCAL/NATIONAL REGULATIONS	
SUPPLEMENTARY PRECAUTIONARY STATEMENTS	No additional data available.	
	Section 16 (Other Information): Risk & Safety phrases in full.	
2.3 Other Hazards		
Adverse Physio-Chemical Properties	NO ADDITIONAL DATA AVAILABLE.	
Adverse effects on human health	NO ADDITIONAL DATA AVAILABLE.	
PBT OR VPVB ACCORDING TO ANNEX XIII	NO ADDITIONAL DATA AVAILABLE.	
SECTION 3: COMPOSITION OF INGREDIEN	1TS  65.0 - 85.0% CITRAL (NERAL + GERANIAL) - CAS-No.: 5392-40-5 EC No.: 226-394-6	
3.2 Mixtures	CLASSIFICATION (EC 1272/2008) SKIN IRRIT. 2, H315; SKIN SENS. 1B, H317; EYE IRRIT. 2, H319  2.0 – 10.0% Geraniol CAS-No.: 106-24-1 EC No.: 203-377-1  CLASSIFICATION (EC 1272/2008) SKIN IRRIT.2, H315; SKIN SENS. 1, H317; EYE DAM. 1, H318  0.2 – 3.5% BETA-CARYOPHYLLENE CAS-No.: 87-44-5 EC No.: 201-746-1  CLASSIFICATION (EC 1272/2008) ASP. TOX. 1, H304; SKIN SENS. 1B, H317; AQUATIC CHRONIC 4, H413 AQUATIC ACUTE 1 - H400, AQUATIC CHRONIC 1 - H410	



0.5 - 3.0% CAMPHENE CAS-NO.: 79-92-5 EC No.: 201-234-8

Classification (EC 1272/2008) Flam. Sol. 2, H228; Eye Irrit. 2, H319; Aquatic Chronic 1, H410

0.1 - 11.0% (D & L) LIMONENE CAS-No.: 138-86-3, EC No.: 205-341-0

CLASSIFICATION (EC 1272/2008) FLAM LIQ 3, H226; ASP TOX. 1, H304; SKIN IRRIT. 2, H315: SKIN SENS. 1, H317; AQUATIC ACUTE 1, H400; AQUATIC CHRONIC 1, H410

1.0 - 3.0% LINALOOL CAS-No.: 78-70-6 EC No.: 201-134-4

CLASSIFICATION (EC 1272/2008) SKIN IRRIT. 2, H315; SKIN SENS. 1B, H317; EYE IRRIT. 2, H319

0.01 - 6.0% GERANYL ACETATE CAS-No.: 105-87-3 EC No.: 203-341-5

CLASSIFICATION (EC 1272/2008) SKIN IRRIT. 2, H315; SKIN SENS. 1, H317; AQUATIC CHRONIC 3, H412

0.01 - 3.0% DELTA-CADINENE CAS-No.: 483-76-1 EC No.: NOT REGISTERED

0.01 - 3.0% METHYL HEPTONE CAS-No.: 110-93-0 EC No.: 203-816-7

CLASSIFICATION (EC 1272/2008) FLAM. LIQ. 3, H226; EYE IRRIT. 2, H319

0.01 - 2.0% ALPHA-PINENE CAS-No.: 80-56-8 EC No.: 201-291-9

CLASSIFICATION (EC 1272/2008) FLAM. LIQ. 3, H226; ACUTE TOX 4, H302; ASP. TOX. 1, H304; SKIN IRRIT. 2, H315; SKIN SENS. 1, H317; AQUATIC CHRONIC 1, H410

0.01 - 1.5% CITRONELLOL CAS-No.: 106-22-9 EC No.: 203-375-0

CLASSIFICATION (EC 1272/2008) SKIN IRRIT. 2, H315; SKIN SENS. 1B, H317; EYE IRRIT. 2, H319

0.01 - 1.0% NEROL CAS-No.: 106-25-2 EC No.: 203-378-7

CLASSIFICATION (EC 1272/2008) SKIN IRRIT. 2, H315; SKIN SENS. 1B, H317; EYE DAM. 1, H318; EYE IRRIT. 2, H319

SECTION 4: FIRST AID MEASURES	
4.1 DESCRIPTION OF FIRST AID MEASURES	
GENERAL INFORMATION	IMMEDIATELY REMOVE ANY CLOTHING SOILED BY THE PRODUCT. SEEK IMMEDIATE MEDICAL ADVICE. IN CASE OF UNCONSCIOUSNESS PLACE PATIENT STABLY INSIDE POSITION FOR TRANSPORTATION. SEEK IMMEDIATE MEDICAL ADVICE.
INHALATION	GET MEDICAL ATTENTION IMMEDIATELY. REMOVE FROM EXPOSURE SITE TO FRESH AIR, KEEP AT REST, AND OBTAIN MEDICAL ATTENTION.
Ingestion	GET MEDICAL ATTENTION IMMEDIATELY. RINSE MOUTH WITH WATER AND OBTAIN MEDICAL ATTENTION.
SKIN CONTACT	REMOVE CONTAMINATED CLOTHES. WASH THOROUGHLY WITH SOAP AND WATER. CONTACT PHYSICIAN.
EYE CONTACT	FLUSH IMMEDIATELY WITH WATER FOR AT LEAST 15 MINUTES. GET MEDICAL ATTENTION IMMEDIATELY.
4.2 MOST IMPORTANT SYMPTOMS & EFFECTS (ACUTE & DELAYED)	No additional information available.
4.3 INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION OR SPECIAL TREATMENT REQUIRED	No additional information available.

5.1	CO2, SAND, EXTINGUISHING POWDER.
EXTINGUISHING MATERIAL	CO2, SAND, EXTINGUISHING FOWDER.
5.2	
SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR	DURING HEATING OR IN CASE OF FIRE POISONOUS GASES ARE PRODUCED.
MIXTURE	
5.3	NO SPECIAL MEASURES REQUIRED.
ADVICE FOR FIRE-FIGHTERS	
	EMERGENCY ACTION CODE: 3[Y] (FOAM + BA & FIRE KIT)



SECTION 6: ACCIDENTAL RELEASE MEASURES		
6.1	T	
PERSONAL PRECAUTIONS	WEAR PROTECTIVE EQUIPMENT. KEEP UNPROTECTED PERSONS AWAY.	
6.2 ENVIRONMENTAL PRECAUTIONS	DO NOT ALLOW PRODUCT TO REACH SEWAGE SYSTEM OR ANY WATER COURSE. INFORM RESPECTIVE AUTHORITIES IN CASE OF SEEPAGE INTO WATER COURSE OR SEWAGE SYSTEM. DO NOT ALLOW TO ENTER SEWERS/SURFACE OR GROUND WATER.	
6.3 METHODS & MATERIAL FOR CONTAINMENT AND CLEANING UP	ABSORB WITH LIQUID BINDING MATERIAL (SAND, DIATOMITE, ACID BINDERS, UNIVERSAL BINDERS, SAWDUST). USE NEUTRALISING AGENT. DISPOSE CONTAMINATED MATERIAL AS WASTE. TREAT WITH 2% SODIUM HYDROXIDE SOLUTION. ENSURE ADEQUATE VENTILATION.	
6.4 REFERENCES TO OTHER SECTIONS	Take Hazard and Precautionary phrases (section 2) into account.	
SECTION 7: HANDLING & STORAGE		
7.1 PRECAUTIONS FOR SAFE-HANDLING	Prevent formation of Aerosols.	
7.2	Information about fire and explosion protection: no special measures required. Requirements to be met by	
CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES	STOREROOMS AND RECEPTACLES: NO SPECIAL REQUIREMENTS. INFORMATION ABOUT STORAGE IN ONE COMMON STORAGE	
	FACILITY: NOT REQUIRED. KEEP CONTAINER TIGHTLY SEALED.  INDUSTRIAL USE: WASHING AND CLEANING PRODUCTS	
7.3 SPECIFIC END USE(S)	PROFESSIONAL USE: WASHING AND CLEANING PRODUCTS; POLISHES AND WAX BLENDS; ORAL CARE PRODUCTS, COSME  CONSUMER USE: AIR CARE PRODUCTS; BIOCIDES; POLISHES AND WAX BLENDS; COSMETICS; WASHING AND CLEANING PRODUCTS	
PERSONAL PROTECTION  8.1 CONTROL PARAMETERS	Not stated	
8.2  EXPOSURE CONTROLS		
EYE PROTECTION	SAFETY GLASSES. TIGHTLY SEALED GOGGLES.	
HAND PROTECTION	PROTECTIVE GLOVES. THE GLOVE MATERIAL HAS TO BE IMPERMEABLE AND RESISTANT TO THE PRODUCT. SELECTION OF GLOVE MATERIAL ON CONSIDERATION OF THE PENETRATION TIMES, RATES OF DIFFUSION AND THE DEGRADATION. MATERIAL OF THE GLOVES: THE SELECTION OF THE SUITABLE GLOVES DOES NOT ONLY DEPEND ON THE MATERIAL, BUT ALSO ON FURTHER MARKS OF QUALITY AND VARIES FROM MANUFACTURER TO MANUFACTURER. AS THE PRODUCT IS A PREPARATION OF SEVERAL SUBSTANCES, THE RESISTANCE OF THE GLOVE MATERIAL CANNOT BE CALCULATED IN ADVANCE AND HAS SHOULD BE CHECKED PRIOR TO THE APPLICATION. THE MULTICHEMICAL-RESISTANT GLOVE BARRIER 02-100 IS RECOMMENDED.	
RESPIRATORY EQUIPMENT	Use suitable respiratory protective device in case of insufficient ventilation. Protection of hands: protective gloves.	
HYGIENE MEASURES	GOOD PERSONAL HYGIENE PRACTICES ARE ALWAYS ADVISABLE, ESPECIALLY WHEN WORKING WITH CHEMICALS / OILS.	
Engineering Measures	USE ONLY IN WELL-VENTILATED AREA.	
Skin Protection	WEAR PROTECTIVE CLOTHING TO REDUCE THE RISK OF SKIN AND EYE CONTACT.	
PERSONAL PROTECTION	AVOID INHALATION OF THE PRODUCT. AVOID CONTACT WITH SKIN AND EYES.	
OTHER PROTECTION	WEAR SUITABLE PROTECTION TO AVOID CONTACT WITH SKIN AND EYES. DO NOT INHALE VAPOURS.	
PROCESS CONDITIONS		
F ROCESS CONDITIONS	Ensure area is well ventilated. Avoid vapour inhalation. Safety shower & Eye bath.	



ENVIROMENTAL EXPOSURE CONTROLS AVOID DISCHARGING INTO DRAINAGE WATER. ONLY ELIMINATE BY AUTHORISED COMPANIES.

SECTION 9: PHYSICAL & CHEMICAL	
PROPERTIES	
9.1 PHYSICAL & CHEMICAL PROPERTIES	
Appearance	Liquid
COLOUR	YELLOW — BROWNISH
ODOUR	Characteristic, Lemon-like
RELATIVE DENSITY	0.869 – 0.910 @ 20°C
FLASH POINT (°C)	>71°C
Refractive Index @ 20 °C	1.460 - 1.500 @ 20°C
Solubility in water $ ext{@}$ 20 $^{\circ}\text{C}$	Water – range for constituents = $0.21 - 4364.1$ mg/L at $25^{\circ}$ C; oil in $70\%$ ethanol = $1:3$
9.2	BOILING POINT @101 325 PA: 94°C
OTHER INFORMATION	Vapour Pressure @ 25°C: 26.66
	Freezing Point @101 325 Pa: - <-20°C
SECTION 10: STABILITY & REACTIVITY	
10.1 Reactivity	No further relevant information available
10.2 CHEMICAL STABILITY	THERMAL DECOMPOSITION/CONDITIONS TO BE AVOIDED: NO DECOMPOSITION IF USED ACCORDING TO SPECIFICATIONS.
10.3 POSSIBILITY OF HAZARDOUS REACTIONS	NO DANGEROUS REACTIONS KNOWN.
10.4 CONDITIONS TO AVOID	KEEP AWAY FROM HEAT OR FLAME. USE ONLY IN A WELL-VENTILATED AREA.
10.5 INCOMPATIBLE MATERIALS	Oxidising Agents, strong acids, strong alkalis
10.6 HAZARDOUS DECOMPOSITION PRODUCTS	No dangerous decomposition products known.

SECTION 11: TOXICOLOGICAL INFORMATION		
11.1 TOXICOLOGICAL EFFECTS		
ACUTE TOXICITY	NO ADDITIONAL DATA AVAILABLE.	
SKIN IRRITATION	CLASSIFIED SKIN IRRITANT (CAT. 2) — BASED ON CITRAL	



Eye damage or ir	RITATION INCONCLUSIVE FOR LEMONGRASS BUT CLASSIFIED AS EYE DAMAGING (BASED ON GERANIOL / H318)
RESPIRATORY OR SKIN SE	MAY CAUSE AN ALLERGIC SKIN REACTION
GERM CELL MUTA	GENICITY NO ADDITIONAL DATA AVAILABLE.
CARCINO	GENICITY NO ADDITIONAL DATA AVAILABLE.
REPRODUCTIVE	TOXICITY NO ADDITIONAL DATA AVAILABLE.
STOT – SINGLE E	EXPOSURE NO ADDITIONAL DATA AVAILABLE.
STOT – REPEATED E	NO ADDITIONAL DATA AVAILABLE.
Aspiration	HAZARD MAY BE FATAL IF SWALLOWED AND ENTERS AIRWAYS (H304).
OTHER INFO	TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT.
SECTION 12: ECOLOGICAL INFORMATION	
	FISH: NO DATA
12.1 Toxicity	<b>Algae:</b> Pseudokirchnerella subcapitata (Eucalyptus Citriodora oil) 72h-Erl $10$ and 72h-Erl $50 = 12$ and $18$ mg/L respectively
	AQUATIC INVERTEBRATES: DAPHNIA (LITSEA CUBEBA OIL) 48H-EL50 = 4.2 mg/L
12.2 PERSISTENCE & DEGRADABILITY	CONSIDERED READILY BIODEGRADABLE.
12.3 BIO- ACCUMULATIVE POTENTIAL	NO DATA.
12.4 Mobility in soil	NO DATA.
12.5 RESULTS OF PBT & VPVB ASSESSMENT	THE SUBSTANCE IS NOT PBT / VPVB.
12.6 OTHER ADVERSE EFFECTS	DO NOT ALLOW PRODUCT TO ENTER STREAMS, SEWERS OR OTHER WATERWAYS.
SECTION 13: DISPOSAL INFORMATION	
	RECOMMENDATION: MUST NOT BE DISPOSED TOGETHER WITH HOUSEHOLD GARBAGE. DO NOT ALLOW
13.1	PRODUCT TO REACH SEWAGE SYSTEM. UNCLEANED PACKAGING: RECOMMENDATION: DISPOSAL MUST E
WASTE TREATMENT METHODS	MADE ACCORDING TO OFFICIAL REGULATIONS.
	SPECIAL PRECAUTIONS FOR LANDFILL AND INCINERATION: WASTE IS SUITABLE FOR INCINERATION

14.1 TRANSPORT INFORMATION	
	ROAD: NOT REGULATED
UN NUMBER	RAIL: NOT REGULATED
	AIR: NOT REGULATED
14.2 UN SHIPPING NAME	NOT REGULATED FOR TRANSPORT.
14.3 TRANSPORT HAZARD CLASS(ES)	NOT REGULATED FOR TRANSPORT.
14.4 PACKING GROUP	NOT REGULATED FOR TRANSPORT.
14.5 ENVIROMENTAL HAZARDS	SEE SECTION 2.



14.6 SPECIAL PRECAUTIONS FOR USER	NO ADDITIONAL DATA AVAILABLE.
14.7 TRANSPORT IN BULK ACCORDING TO ANNEX II OF MARPOL73/78 & THE IBC CODE.	No additional data available.
SECTION 15: REGULATORY INFORMATION	
15.1 PRODUCT SPECIFIC SAFETY, HEALTH & ENVIRONMENTAL REGULATIONS & LEGISLATION	
EU DIRECTIVES	REGULATION (EC) NO 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL OF 18 <sup>TH</sup> DECEMBER 2006. CONCERNING THE REGISTRATION, EVALUATION, AUTHORIZATION & RESTRICTION OF CHEMICALS (REACH), ESTABLISHING A EUROPEAN CHEMICALS AGENCY, AMENDING DIRECTIVE 1999/45/EC AND REPEALING COUNCIL REGULATION (EEC) NO793/93 & COMMISSION REGULATION (EC) NO1488/94 AS WELL AS COUNCIL DIRECTIVE 76/769/EEC & COMMISSION DIRECTIVE 91/155/ECC, 93/67/ECC, 93/105/EEC & 2000/21/EC (INCLUDING AMENDMENTS).
STATUTORY INSTRUMENTS	THE CHEMICALS (HAZARD INFORMATION & PACKAGING FOR SUPPLY REGULATIONS 2009 (S.I.2009 NO 716).
Approved Code of Practice	CLASSIFICATION & LABELLING OF SUBSTANCES & PREPARATIONS DANGEROUS FOR SUPPLY. SAFETY DATA SHEETS FOR SUBSTANCES & PREPARATIONS.
GUIDANCE NOTES	WORKPLACE EXPOSURE LIMITS EH40. CHIP FOR EVERYONE HSG 108.
15.2 CHEMICAL SAFETY ASSESSMENT	-

SECTION 16: OTHER INFORMATION	
	H315 CAUSES SKIN IRRITATION.
HAZARD AND/ OR PRECAUTIONARY STATEMENTS IN FULL	H317 MAY CAUSE AN ALLERGIC SKIN REACTION.
,	H318 CAUSES SERIOUS EYE DAMAGE.
	H411 TOXIC TO AQUATIC LIFE WITH LONG LASTING EFFECTS.
RAINING INSTRUCTIONS: REFER TO POSSIBLE HAZARD BEFORE USE OF THIS RODUCT.	
ABBREVIATIONS & ACRONYMS:	
MSDS	MATERIAL SAFETY DATA SHEET.
INCI	INTERNATIONAL NOMENCLATURE OF COSMETIC INGREDIENTS.
CAS	CHEMICAL ABSTRACT SERVICE.
IMDG	International Maritime code for Dangerous Goods.
ADR	ACCORD EUROPEAN SUR LE TRANSPORT DES MERCHANDISES DANGEREUSES PAR ROUTE (EUROPEAN
AUK	AGREEMENT CONCERNING THE INTERNATIONAL CARRIAGE OF DANGEROUS GOODS BY ROAD).
RID	International Carriage of Dangerous Goods by Rail.
ICAO	International Civil Aviation Organization.
ADN	International Carriage of Dangerous Goods by Inland Waterways.
GHS	GLOBALLY HARMONIZED SYSTEM OF CLASSIFICATION & LABELLING OF CHEMICALS.
Trem Card	TRANSPORT EMERGENCY CARD.
STOT	SPECIFIC TARGET ORGAN TOXICITY.



DOCUMENTATION REVISION	
DATE	CHANGE DESCRIPTION
10/04/2018	Data Launch
21/10/2021	Review