

Material Safety Data Sheet EU Regulation: 1907/2006

SECTION 1: Identificat	tion of the substance/m	nixture a	nd of the con	npany/under	taking
Product Identification					
Product Name	LEMON ESSENTIAL OIL				
Biological Definition	CITRUS LIMON PEEL OIL IS THE LIMON (L.), RUTACEAE.	VOLATILE (DIL OBTAINED BY	COLD COMPRESS	SION OF THE FRESH PEEL OF THE LEMON, CITRUS
INCI Name	CITRUS LIMON PEEL))	
Synonyms & Trade Names	-				A TM
Internal Product Code	K0254	1		100	/A /A
CAS-No	8008-56-8 / 84929-31-7	EC No.	284-515-8	EINECS No.	284-515-8
		10	1		
1.2 Details of the supplier of the safety data sheet					
Company Address	Akoma International (UK) LTD Unit 9A Sawley Park Nottingham Road Derby DE21 6AS Tel: +44 (0) 1332 613 967	Т	ΗЕ	HE	EART
Email	technical@akoma.biz				
1.3 Details of the supplier of the s	afety data sheet				
Emergency Contacts	Mr. Wynn Mensah – Tel: 0133	2 613 967			

SECTION 2: Hazards Identification			
2.1			
Classification of the substance of	or mixture THE FULL TEXT FOR ALL HAZARD STATEMENTS IS DISPLAYED IN SECTION 16.		
classification (67/548/EEC)	NO ADDITIONAL DATA AVAILABLE.		
	FLAMMABLE LIQUID, HAZARD CATEGORY 3. H226		
	SKIN CORROSION / IRRITATION CATEGORY 2. H315		
Classification (EU1272/2008)			
	ASPIRATION HAZARD CATEGORY 1. H304		
	HAZARDOUS TO THE AQUATIC ENVIRONMENT - ACUTE HAZARD CATEGORY 1. H410		
2.2			

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Label Elements	LABEL IN ACCORDANCE WITH REGULATION (EC) NO 1272/2008.
GHS Label	GHS02 GHS08 GHS09
Signal Word	DANGER.
Contains	LIMONENE, PINENES, CITRAL, MYRCENE
Hazards Statement	H226, FLAMMABLE LIQUID AND VAPOUR. H304, MAY BE FATAL IF SWALLOWED AND ENTERS AIRWAYS. H315, CAUSES SKIN IRRITATION. H317, MAY CAUSE AN ALLERGIC SKIN REACTION. H410, VERY TOXIC TO AQUATIC LIFE WITH LONG LASTING EFFECTS.
Precautionary Statements	P210, KEEP AWAY FROM HEAT, SPARKS, OPEN FLAMES AND HOT SURFACES NO SMOKING. P241, USE EXPLOSION-PROOF ELECTRICAL, VENTILATING AND LIGHTING EQUIPMENT. P262, DO NOT GET IN EYES, ON SKIN OR ON CLOTHING. P273, AVOID RELEASE TO THE ENVIRONMENT. P280, WEAR PROTECTIVE GLOVES/EYE PROTECTION/FACE PROTECTION. P301/310, IF SWALLOWED: IMMEDIATELY CALL A POISON CENTER OR DOCTOR/PHYSICIAN. P303/361/353, IF ON SKIN (OR HAIR): REMOVE/TAKE OFF IMMEDIATELY ALL CONTAMINATED CLOTHING. RINSE SKIN WITH WATER/SHOWER. P331, DO NOT INDUCE VOMITING.
Supplementary Precautionary Statements	P405, STORE LOCKED UP.
	SECTION 16 (OTHER INFORMATION): RISK & SAFETY PHRASES IN FULL.
2.3 Other Hazards	
Adverse physio-chemical properties	NO DATA
Adverse effects on human	WITH THE PRESENCE OF FUROCOUMARINS, THE PRODUCT MAY HAVE PHOTOTOXIC EFFECTS (SKIN).
PBT OR VPVB ACCORDING TO ANNEX XIII	NO DATA
SECTION 3: Compositio	n of Ingredients
3.1 Mixtures	~ 66.0% LIMONENE CAS-NO: 5989-27-5; EC NO.: 227-813-5 CLASSIFICATION (EC 1272/2008) FLAM. LIQ. 3 - H226, SKIN IRRIT. 2 - H315, SKIN SENS. 1 - H317, ASP. TOX. 1 - H304, AQUATIC ACUTE 1 - H400, AQUATIC CHRONIC 1 - H410 ~ 13.0% B-PINENE CAS NO: 127-91-3; EC NO: 20-872-5 CLASSIFICATION (EC 1272/2008) FLAM. LIQ. 3 - H226, ASP. TOX. 1 - H304, SKIN IRRIT. 2 - H315, SKIN SENS. 1 - H317 ~ 9.0% Γ-TERPINENE (P-MENTHA-1,4-DIENE) CAS NO99-85-4; EC NO: 202-794-6 CLASSIFICATION (EC 1272/2008) FLAM. LIQ. 3 − H226, ASP TOX. 1 −H304; ~ 3.0% CITRAL CAS NO: 5392-40-5; EC NO: 226-394-6 CLASSIFICATION (EC 1272/2008) SKIN IRRIT. 2 - H315, EYE IRRIT. 2 - H319, SKIN SENS. 1 - H317 ~ 2.5% A-PINENE CAS NO: 80-56-8; EC NO: 201-291-9 CLASSIFICATION (EC 1272/2008) FLAM. LIQ. 3, H226; ASP. TOX. 1, H304; SKIN SENS.1, H317; AQUATIC ACUTE 1, AQUATIC CHRONIC 1, H410
	~ 1.5% SABINENE CAS NO: 3387-41-5 ; EC NO: 222-212-4

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CLASSIFICATION (EC 1272/2008) FLAMMABLE LIQ. CAT 3, H226
~ 1.5% MYRCENE CAS NO: 123-35-3 ; EC NO: 204-622-5 CLASSIFICATION (EC 1272/2008) FLAM. LIQ. 3 - H226, ASP. TOX. 1 - H304, AQUATIC CHRONIC 3 - H412

SECTION 4: First Aid Me	asures	
4.1 Description of First Aid Measures		
General Information	ALWAYS REMOVE	E CONTAMINATED CLOTHING IMMEDIATELY.
Inhalation	GET MEDICAL ATT	ENTION IMMEDIATELY. REMOVE FROM EXPOSURE SITE TO FRESH AIR, KEEP AT REST, AND OBTAIN MEDICAL
	ATTENTION.	
Ingestion	GET MEDICAL ATT	ENTION IMMEDIATELY. RINSE MOUTH WITH WATER AND OBTAIN MEDICAL ATTENTION.
Skin Contact	REMOVE CONTAI	MINATED CLOTHES. WASH THOROUGHLY WITH SOAP AND WATER. CONTACT PHYSICIAN IF IRRITATION
	PERSISTS.	
Eye Contact	FLUSH IMMEDIATE	ELY WITH WATER FOR AT LEAST 1.5 MINUTES. CONTACT PHYSICIAN IF SYMPTOMS PERSIST.
4.2		
Most important symptoms &	INHALATION	MAY CAUSE COUGHING AND DIFFICULTIES IN BREATHING.
effects (Acute & Delayed)	INGESTION	IRRITATING TO THE RESPIRATORY TRACT AND MAY CAUSE DAMAGE TO THE CENTRAL NERVOUS SYSTEM.
	SKIN CONTACT	TOXIC IN CONTACT WITH SKIN.
	EYE CONTACT	MAY CAUSE EYE IRRITATION.
4.3	- A	
Indication of any immediate	NONE EXPECTED,	SEE SECTION 4.1 FOR FURTHER INFORMATION.
medical attention or special		
treatment required	1000	

SECTION 5: Fire Fighting Measures		
5.1 Extinguishing material	FOAM, CO2, DRY CHEMICAL POWDER.	
5.2 Special hazards arising from the substance Or mixture	BURNING PRODUCES IRRITATING, TOXIC AND OBNOXIOUS FUMES	
5.3 Advice for fire-fighters	SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS: WEAR POSITIVE-PRESSURE SELF-CONTAINED BREATHING APPARATUS (SCBA) AND APPROPRIATE PROTECTIVE CLOTHING.	

SECTION 6: Accidental R	elease Measures
6.1	
Personal precautions	ENSURE ADEQUATE VENTILATION OF THE WORKING AREA, EVACUATE PERSONNEL TO SAFE AREA, AND WEAR SUITABLE PROTECTIVE EQUIPMENT. NO SMOKING, SPARKS, FLAMES OR OTHER SOURCES OF IGNITION NEAR SPILLAGE. AVOID CONTACT WITH SKIN, EYES AND CLOTHING.
6.2	
Environmental precautions	DO NOT DISCHARGE INTO DRAINS, WATER COURSES OR ONTO THE GROUND. DISPOSE OF IN LINE WITH LOCAL AUTHORITY GUIDELINES.
6.3	REMOVE IGNITION SOURCES. PROVIDE ADEQUATE VENTILATION. AVOID EXCESSIVE INHALATION OF VAPOURS. CONTAIN
Methods & material for	SPILLAGE IMMEDIATELY BY USE OF SAND OR INERT POWDER. DISPOSE OF ACCORDING TO LOCAL REGULATIONS.
containment and cleaning up	
6.4	
References to other sections	refer & consider section 8.
	REFER & CONSIDER SECTION 13.

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SECTION 7: Handling & Storage		
7.1		
Precautions for safe-handling	HANDLE IN ACCORDANCE WITH GOOD HYGIENE AND SAFETY PRACTICE. KEEP AWAY FROM HEAT, SPARKS, OPEN FLAMES	
	AND HOT SURFACES NO SMOKING. USE PERSONAL PROTECTIVE EQUIPMENT AS REQUIRED. USE IN ACCORDANCE WITH	
	GOOD MANUFACTURING AND INDUSTRIAL HYGIENE PRACTICES. USE IN AREAS WITH ADEQUATE VENTILATION DO NOT EAT,	
	DRINK OR SMOKE WHEN USING THIS PRODUCT.	
7.2		
Conditions for safe storage,	KEEP THE PRODUCT CONTAINER TIGHTLY CLOSED, IN A DRY, VENTILATED AREA. KEEP AWAY FROM POTENTIAL SOURCES OF	
including any incompatibilities	IGNITION AND PROTECTED FROM LIGHT. MAINTAIN LIMITED CONTACT WITH OXYGEN.	
7.3		
Specific end use(s)	NO DATA.	

SECTION 8: Exposure Co	ntrols & Personal Protection
8.1	NO DATA.
Control Parameters	
8.2	Nh.
Exposure Controls	
Eye Protection	WEAR PROTECTIVE GLOVES/EYE PROTECTION/FACE PROTECTION.
Hand Protection	
Respiratory Equipment	
. ,	EXCESSIVE VAPOUR, THIS MATERIAL SHOULD NOT REQUIRE SPECIAL ENGINEERING CONTROLS. HOWEVER, IN CONDITIONS
	OF HIGH OR PROLONGED USE, OR HIGH TEMPERATURE OR OTHER CONDITIONS WHICH INCREASE EXPOSURE,
	THEFOLLOWING ENGINEERING CONTROLS CAN BE USED TO MINIMISE EXPOSURE TO PERSONNEL; A) INCREASE VENTILATION
	OF THE AREA WITH LOCAL EXHAUST VENTILATION. B) PERSONNEL CAN USE AN APPROVED, APPROPRIATELY FITTED
	RESPIRATOR WITH ORGANIC VAPOUR CARTRIDGE OR CANISTERS AND PARTICULATE FILTERS. C) USE CLOSED SYSTEMS
	FORTRANSFERRING AND PROCESSING THIS MATERIAL. ALSO REFER TO SECTIONS 2 AND 7.
Hygiene Measures	GOOD PERSONAL HYGIENE PRACTICES ARE ALWAYS ADVISABLE, ESPECIALLY WHEN WORKING WITH CHEMICALS / OILS.
Engineering Measures	NONE.
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	ENSURE AREA IS WELL VENTILATED. AVOID VAPOUR INHALATION. SAFETY SHOWER & EYE BATH.
ENVIROMENTAL EXPOSURE	AVOID DISCHARGING INTO DRAINAGE WATER.
CONTROLS	

SECTION 9: Physical & Chemical Properties		
9.1		
Physical & Chemical Properties		
	UOUED.	
Appearance	LIQUID	
Colour	COLOURLESS - YELLOW – LIGHT GREEN	
Odour	CHARACTERISTIC - FRESH, LEMONY, SWEET & FRUITY	
Relative Density	0.840 − 0.860 @ 20°C	
Flash Point (°C)	49°C	
Refractive Index	APPROX. 1.465 – 1.478 @ 20°C	
Solubility in Water @ 20°C	INSOLUBLE IN WATER. SOLUBLE IN ALCOHOL AND OTHER OILS.	
9.2		
Other Information	NO DATA.	

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SECTION 10: Stability &	Reactivity
10.1 Reactivity	PRESENTS NO SIGNIFICANT REACTIVITY HAZARDS, BY ITSELF OR IN CONTACT WITH WATER. STABLE UNDER NORMAL TEMPERATURE AND STORAGE CONDITIONS AND RECOMMENDED USE.
10.2 Chemical stability	STABLE UNDER SUGGESTED STORAGE CONDITIONS (<15°C).
10.3 Possibility of hazardous reactions	NO.
10.4 Conditions to avoid	STORAGE AT HIGH TEMPERATURES. DO NOT STORE ABOVE 15°C.
10.5 Incompatible materials	P.V.C
10.6 Hazardous decomposition products	THIS PRODUCT DOES NOT DECOMPOSE UNDER NORMAL CONDITIONS. UNDER FIRE CONDITIONS THE PRODUCT WILL PRODUCE A MIXTURE OF IRRITATING FUMES & SMOKE & CARBON MONOXIDE.

SECTION 11: Toxicological Information			
11.1 Toxicological effects			
Acute Toxicity	LD50: 5000MG/KG BW (ORAL: RAT) LD50: 10000 MG/KG BW (DERMAL: RABBIT) (SOURCE CSR)		
Skin irritation	CONSIDERED A SKIN IRRITANT (ROUTE: DRM). THERE MAY BE IRRITATION AND REDNESS AT SITE OF CONTACT.		
Eye damage or irritation	NOT CLASSIFIED AS IRRITATING TO THE EYE (SOURCE CSR).		
Respiratory or skin sensitivity	MAY CAUSE AN ALLERGIC SKIN REACTION.		
Germ cell mutagenicity	NEGATIVE. (SOURCE CSR).		
Carcinogenicity	NOT APPLICABLE.		
Reproductive toxicity	NOT APPLICABLE.		
STOT – single exposure	NOT APPLICABLE.		
STOT — repeated exposure	NOT APPLICABLE.		
Aspiration hazard	MAY BE FATAL IF SWALLOWED AND ENTERS AIRWAYS (H304).		
Other information	NO DATA.		

SECTION 12: Ecological Information		
12.1 Toxicity	MARINE POLLUTANT. AQUATIC LIFE: EFFECTS.	H410; VERY TOXIC TO AQUATIC LIFE WITH LONG LASTING
	ALGAE/AQUATIC PLANTS: CSR).	EC50/LC50 FOR FRESHWATER ALGAE: 0.523 MG/L (SOURCE

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	FISH: LC50 FOR FRESHWATER FISH: 0.341 MG/L (SOURCE CSR). AQUATIC INVERTEBRATES:EC50/LC50 FOR FRESH WATER INVERTEBRATES; 0.313 MG/L (SOURCE		
	CSR). PNECS:	WATER:	AQUA (FRESHWATER):
	5.4 μG/L		AQUA (MARINE WATER):
	0.54 μG/L		AQUA (INTERMITTENT RELEASE):
	577 μG/L		SEDIMENT (FRESHWATER):
	1.3 MG/KG SEDIM	MENT DW	,
	0.13 MG/KG SEDIN	MENT DW	SEDIMENT (MARINE WATER):
	2.1 MG/L SOIL: 0.261 MG/KG SOIL DW ORAL: 13.3 MG/KG (SOURCE CSR).		SEWAGE TREATMENT PLANT:
12.2 Persistence & degradability	THIS MATERIAL IS CONSIDERED THE CRITERIA FOR PERSISTENCE	READILY BIODEGRADABLE, THEREFOR	E DOES NOT FULFIL
12.3 Bio- accumulative potential	BIO-ACCUMULATION POTENTI.	AL.	
12.4 Mobility in soil	CONSIDERED AS A READILY BIODEGRADABLE NCS. BASED ON THE READY BIODEGRADABILITY OF THE NCS, SIMULATION TESTS IN SURFACE WATER, SEDIMENT AND SOIL ARE NOT REQUIRED IN ACCORDANCE WITH EFFECTS.		
12.5 Results of PBT & VPVB assessment	THIS SUBSTANCE DOES NOT MEET THE PBT/VPVB CRITERIA OF REACH, ANNEX XIII.		
12.6 Other adverse effects	DO NOT ALLOW PRODUCT TO	ENTER STREAMS, SEWERS OR OTHER	WATERWAYS.

SECTION 13: Disposal Information	
13.1 Waste treatment methods	ALWAYS RECOVER SPILLED PRODUCT. DISCARD WASTE MATERIAL WITH AUTHORIZED WASTE MANAGEMENT SERVICES. ACT IN ACCORDANCE WITH LOCAL & NATIONAL WASTE REGULATIONS.

SECTION 14: Transport Information		
14.1 Transport Information		
UN NUMBER	ROAD: 1169 RAIL: 1169 AIR: 1169	
14.2 UN SHIPPING NAME	EXTRACTS, AROMATIC, LIQUID.	
14.3	ADR/RID/ADN CLASS: 3 FLAMMABLE LIQUID. IMDG CLASS: 3 FLAMMABLE LIQUID.	

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TRANSPORT HAZARD	ICAO CLASS/DIVISION: 3 FLAMMABLE LIQUID.	
CLASS(ES)	TRANSPORT LIBERS	
	TRANSPORT LABELS	
	FLAMMABLE	
	FLAMMADLE	
	3	
	•	
14.4		
PACKING GROUP	ADR/RID/ADN PACKING GROUP III	
	IMDG PACKING GROUP III	
	ICAO PACKING GROUP III	
14.5		
ENVIROMENTAL HAZARDS	ENVIRONMENTALLY HAZARDOUS SUBSTANCE/MARINE POLLUTANT	
	/av	
	₹	
14.6		
SPECIAL PRECAUTIONS FOR	TARIFF CODE: 3301131000. THIS PRODUCT CONTAINS FLAMMABLES AND DANGEROUS FOR THE	
USER	ENVIRONMENT, IN CASE ON POURING OUT, MAKE SURE LABEL NEW PACKAGING ACCORDINGLY.	
	REPRODUCING ORIGINAL LABEL WITH RELEVANT SYMBOLS.	
14.7 TRANSPORT IN BULK	NO ADDITIONAL DATA.	
ACCORDING TO ANNEX II OF	NO ADDITIONAL DATA.	
MARPOL73/78 & THE IBC		
CODE.		
	OLI THE HEADT	
CECTION 15 December 2	Information	
SECTION 15: Regulatory	Information	
15.1		
	environmental regulations & legislation	
,	REGULATION (EC) NO 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL OF 18TH DECEMBER 2006.	
	CONCERNING THE REGISTRATION, EVALUATION, AUTHORIZATION & RESTRICTION OF CHEMICALS (REACH), ESTABLISHING A	
EU Directives	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).	
C	THE CHEMICALS (HAZARD INFORMATION & PACKAGING FOR SUPPLY REGULATIONS 2009 (S.I.2009 NO 716).	
Statutory Instruments		
	CLASSIFICATION & LABELLING OF SUBSTANCES & PREPARATIONS DANGEROUS FOR SUPPLY. SAFETY DATA SHEETS FOR	
Approved Code of Practice	SUBSTANCES & PREPARATIONS.	
Guidance Notes	WORKPLACE EXPOSURE LIMITS EH40. CHIP FOR EVERYONE HSG 108.	
15.2		
Chemical Safety Assessment	-	
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SECTION 16: Other Information			
HAZARD AND/ OR PRECAUTIONARY STATEMENTS IN FULL	H315, CAUSES SKIN IRRITATION.		
Training Instructions: Refer to possible hazard before use of this product.			
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 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.		

Legal Disclaimer:

The data provided in this material safety data sheet is meant to represent typical data/analysis for this product and is correct to the best of our knowledge. The data was obtained from current and reliable sources, but is supplied without warranty, expressed or implied, regarding its correctness or accuracy. It is the user's responsibility to determine safe conditions for the use of this product, and to assume liability for loss, injury, damage or expense arising from improper use of this product. The information provided does not constitute a contract to supply to any specification, or for any given application, and buyers should seek to verify their requirements and product use.

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