

Safety Data Sheet according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations Issue date: 06/30/2022 Version: 1.0

SECTION 4. Identification	
SECTION 1: Identification	
1.1. Identification	. Mixture
Product form	
Product name Product code	: OIL, COCONUT CREAM* :
	99181
1.2. Recommended use and restricti	ons on use
1.3. Supplier	
Shay and Company 10639 SE Fuller Rd Milwaukie, OR 97222 5036531155 - orders@shayandcompany	/.com
1.4. Emergency telephone number	
Emergency number	: CHEMTREC - USA: 800-424-9300 International: +1 703-527-3887 / 1-800-424-9300 CCN 13010
SECTION 2: Hazard(s) identificati	ion
2.1. Classification of the substance of	
GHS US classification	
Skin sensitization, Category 1	May cause an allergic skin reaction
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2.2. GHS Label elements, including	precautionary statements
GHS US labeling	
Hazard pictograms (GHS US)	GHS07
Signal word (GHS US)	: Warning
Hazard statements (GHS US)	: May cause an allergic skin reaction
Precautionary statements (GHS US)	 Avoid breathing dust/fume/gas/mist/vapors/spray. Contaminated work clothing must not be allowed out of the workplace. Wear protective gloves/protective clothing/eye protection/face protection. If on skin: Wash with plenty of water. Specific treatment (see supplemental first aid instruction on this label). If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse. Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.
2.3. Other hazards which do not resu	ult in classification
No additional information available	
2.4. Unknown acute toxicity (GHS US	S)
Not applicable	
SECTION 3: Composition/Information	ation on ingredients
3.1. Substances	
Not applicable	
3.2. Mixtures	
Viai mixtures	

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Name	Product identifier	%	GHS US classification
COUMARIN	(CAS-No.) 91-64-5	5 – 10	Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Dermal), H311 Skin Sens. 1B, H317
ETHYL MALTOL	(CAS-No.) 4940-11-8	1 – 5	Acute Tox. 4 (Oral), H302
PIPERONAL	(CAS-No.) 120-57-0	1 – 5	Skin Sens. 1B, H317
GAMMA OCTALACTONE	(CAS-No.) 104-50-7	1 – 5	Skin Irrit. 2, H315

Full text of hazard classes and H-statements : see section 16

Get medical advice/attention. First-aid measures after eye contact Finst-aid measures after ingestion First-aid measures after ingestion Call a poison center/doctor/physician if you feel unwell. 4.2. Most important symptoms and effects (acute and delayed) Symptoms/effects after skin contact : May cause an allergic skin reaction. 4.3. Immediate medical attention and special treatment, if necessary Treat symptomatically. SECTION 5: Fire-fightling measures Suitable (and unsuitable) extinguishing media : Water spray. Dry powder, Foam. Carbon dioxide. 5.2. Specific hazards arising from the chemical Reactivity Reactivity : The product is non-reactive under normal conditions of use, storage and transport. 5.3. Special protoctive equipment and precautions for fire-fighters Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathin apparatus. Complete protective clothing. SECTION 6: AccCidental release on assures idust/imme/gas/misit/vapors/spray. 6.1.1. For non-emergency personnel Emergency procedures : Ventilate spillage area. Avoid contact with skin and eyes. Avoid breathing dust/imme/gas/misit/vapors/spray. 6.2. Environmental precautions Avoid release		
First-aid measures after inhalation : Renove person to fresh air and keep comfortable for breathing. First-aid measures after iskin contact : Wash skin with pierty of water. Take off contaminated clothing. If skin irritation or rash occur Get medical advocatitemion. First-aid measures after inpestion : Call a poison center/doctor/physician if you feel unwell. 4.2. Most important symptoms and effoct: (acute and delayed) Symptoms/effects after skin contact : May cause an allergic skin reaction. 4.3. Immediate medical attention and special treatment, if necessary Treat symptomsitemically. Streat symptomsitedially. Water spray. Dry powder. Foam. Carbon dioxide. 5.2. Specific hazards arising from the chemical Reactivity : The product is non-reactive under normal conditions of use, storage and transport. 5.3. Specific hazards arising from the chemical . Do not attemp to take action without suitable protective equipment. Self-contained breathing aparatus. Complete protective clothing. SECTION 5: Accidental releases to measures . Lo not attemp to take action without suitable protective equipment. Self-contained breathing aparatus. Complete protective clothing. SECTION 5: Accidental releases to the environment. . Do not attemp to take action without suitable protective equipment. For further information are for to section 8: "Exposure controls/personal protector". 6.1.1. For one-mergency personnel	SECTION 4: First-aid measures	
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dust/fume/gas/mist/vapors/spray. Wear personal protective equipment. Hygiene measures : Contaminated work clothing should not be allowed out of the workplace. Wash contaminate clothing before reuse. Do not eat, drink or smoke when using this product. Always wash har	7.1. Precautions for safe handling	
clothing before reuse. Do not eat, drink or smoke when using this product. Always wash har	Precautions for safe handling	: Ensure good ventilation of the work station. Avoid contact with skin and eyes. Avoid breathing dust/fume/gas/mist/vapors/spray. Wear personal protective equipment.
arter nandling the product.	Hygiene measures	: Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

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7.2. Conditions for safe storage, including any incompatibilities

: Store in a well-ventilated place. Keep cool. Storage conditions

SECTION 8: Exposure controls/personal protection

8.1. **Control parameters**

OIL, COCONUT CREAM*	
No additional information available	
COUMARIN (91-64-5)	
No additional information available	
ETHYL MALTOL (4940-11-8)	
No additional information available	
PIPERONAL (120-57-0)	
No additional information available	
GAMMA OCTALACTONE (104-50-7)	
No additional information available	

8.2. Appropriate engineering controls

: Ensure good ventilation of the work station.

: Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Hand protection:

Protective gloves

Eye protection:

Safety glasses

Skin and body protection:

Wear suitable protective clothing

Appropriate engineering controls

Environmental exposure controls

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment



SECTION 9: Physical and chemical	l properties	
9.1. Information on basic physical and	I chemical properties	
Physical state	: Liquid	
Color	: COLORLESS TO YELLOW	
Odor	: CHARACTERISTIC, MATCHING RETAINER SAMPLE	
Odor threshold	: No data available	
pH	: No data available	
Melting point	: Not applicable	
Freezing point	: No data available	
Boiling point	: No data available	
Flash point	: 100 °C	
Relative evaporation rate (butyl acetate=1)	: No data available	
Flammability (solid, gas)	: Not applicable.	
Vapor pressure	: No data available	
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Relative vapor density at 20 °C	: No data available
Relative density	: 0.9703 (0.9603 – 0.9803)
Solubility	: Insoluble.
Partition coefficient n-octanol/water (Log Pow)	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosion limits	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available
9.2. Other information	

Refractive index

: 1.46844 (1.45844 - 1.47844)

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

No additional information available

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10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information	on
11.1. Information on toxicological effects	
Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified
COUMARIN (91-64-5)	
LD50 oral rat	293 mg/kg body weight Animal: rat, Guideline: other:
LD50 dermal rat	293 mg/kg body weight Animal: rat, Guideline: other:
ATE US (oral)	293 mg/kg body weight
ATE US (dermal)	293 mg/kg body weight
ETHYL MALTOL (4940-11-8)	
LD50 oral rat	1220 mg/kg body weight (Equivalent or similar to OECD 401, Rat, Experimental value, Oral)
LD50 dermal rabbit	> 5000 mg/kg body weight Animal: rabbit, Guideline: OECD Guideline 402 (Acute Dermal Toxicity), Remarks on results: no indication of skin irritation up to the relevant limit dose level
ATE US (oral)	1200 mg/kg body weight
PIPERONAL (120-57-0)	
LD50 oral rat	2700 mg/kg body weight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity), Remarks on results: other:, 95% CL: 2350 - 3100
LD50 dermal rat	> 5000 mg/kg body weight Animal: rat, Guideline: other:, Guideline: OECD Guideline 402 (Acute Dermal Toxicity), Remarks on results: other:
ATE US (oral)	2700 mg/kg body weight
GAMMA OCTALACTONE (104-50-7)	
ATE US (oral)	4400 mg/kg body weight
Skin corrosion/irritation	Not classified

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STOT-single exposure : Not classified STOT-repeated exposure : Not classified COUMARIN (91-64-5) . NOAEL (subchronic,oral,animal/female.90 days) > 138.3 mg/kg body weight Animal: mouse, Animal sex: female BTHYL MALTOL (4940-11-8) . NOAEL (crait,rat.90 days) > 200 mg/kg body weight Animal: rat, Guideline: OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies) PIPERONAL (120-57-0) . NOAEL (crait,rat.90 days) 300 mg/kg body weight Animal: rat, Guideline: OECD Guideline 422 (Combined Repeated Does Toxicity Study with the Reproduction / Developmental Toxicity Screening Test). Guideline: other: . GAMMA OCTALACTONE (104-50-7) . NOAEL (oral,rat.90 days) . Social crait days days . Viscosity, Kinematic . Viscosity, Kinematic . Viscosity, Kinematic . Stocolog: general . Colog: General . Toxicity . <t< th=""><th>ccording to Federal Register / Vol. //, No. 58 / Monday,</th><th></th></t<>	ccording to Federal Register / Vol. //, No. 58 / Monday,	
Germ call mutagenicity Not classified Carcinogenicity Not classified COUMARIN (91-64-5) IARC group IARC group 3 - Not classified STOT-single exposure Not classified STOT-single exposure Not classified COUMARIN (91-64-5) Not classified NOAEL (subchronic, oral, animal/emale, 90 > 138.3 mg/kg body weight Animal: mouse, Animal sex: female Owys) NOAEL (subchronic, oral, animal/emale, 90 > 138.3 mg/kg body weight Animal: rat, Guideline: OECD Guideline 453 (Combined Chronic Toxicity / Carcinogeneicity Studies) PIERENAL (129-57-0) NOAEL (oral, rat, 90 days) Soo mg/kg body weight Animal: rat, Guideline: OECD Guideline 452 (Combined Repeated Dose Toxicity View) with the Reproduction / Developmental Toxicity Screening Test), Guideline: OECD Guideline 452 (Combined Repeated Dose Toxicity View) with the Reproduction / Developmental Toxicity Screening Test), Guideline: OECD Guideline 452 (Combined Repeated Dose Toxicity View) with the Reproduction / Developmental Toxicity Screening Test) RAMMA OCTALACTOME (104-50-7) Not classified NoAEL (oral, rat, 90 days) Dose Toxicity View) with the Reproduction / Developmental Toxicity Screening Test) RAMMA OCTALACTOME (104-50-7) Not classified Viecosity, Anematic Not data svalable Symptoms/effects after	, ,	
Carcinogenicity : Not classified COUMARIN (91-64-5) LARC group 3 - Not classified STOT-single exposure : Not classified STOT-single exposure : Not classified STOT-repeated exposure : Not classified COUMARIN (91-64-5) COUMARIN (91-64-5) COUMARIN (91-64-5) STOT-repeated exposure : Not classified COUMARIN (91-64-5) COU		
COUMARIN (91-64-5) IARC group 3 - Not classified Reproductive toxicity Not classified STOT-single exposure Not classified STOT-single exposure Not classified STOT-single exposure Not classified COUMARIN (91-64-5) Not classified NOAEL (subchronic.oral.animal/female.90 (ays) > 138.3 mg/kg body weight Animat: rat, Guideline: OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies) PIPERONAL (120-57-0) NOAEL (oral.rat.90 days) 300 mg/kg body weight Animat: rat, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test), Guideline: other: CAMAA COTALACTONE (104-50-7) NOAEL (oral.rat.90 days) = 750 mg/kg body weight Animat: rat, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test), Guideline: other: Applaration hazard : Not classified Viscosity, Kinematic : No data available Symptoms/effects after skin contact : May cause an allergic skin reaction. SECTION 12: Ecological information 1224 mg/ Test organisms (species): LC30 - Fish [1] 2.94 mg/1 Test organisms (species): LC30 - Fish [2] 1324 mg/ Test organisms (species)		
IARC group 3 - Not classified Reproductive toxicity : Not classified STOT-single exposure : Not classified STOT-repeated exposure : Not classified STOT-repeated exposure : Not classified OCUMARI (91-4-5) : Not classified NAGE (subchronic,oral,aminal/female,90 > 138.3 mg/kg body weight Animal: mouse, Animal: sex: female days) : 200 mg/kg body weight Animal: rat. Guideline: OECD Guideline 453 (Combined Chronic Toxicly / Carcinogenicity Studies) PIPERONAL (120-57-0) : 000 mg/kg body weight Animal: rat, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicly Study with the Reproduction / Developmental Toxicity Screening Test), Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicly Study with the Reproduction / Developmental Toxicity Screening Test) GAMMA CCTALACTORE (104-50-7) : Not classified NOAEL (oral, rat, 90 days) : 750 mg/kg body weight Animal: rat, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicly Study with the Reproduction / Developmental Toxicity Screening Test), Guideline 423 (Combined Repeated Dose Toxicly Study with the Reproduction / Developmental Toxicity Screening Test) Aspiration hazard : Not classified Viscosity, kinematic : Way cause an allergic skin reaction, SECTION 122 Ecological information 121. Toxicity Columaret (91-65-0) : Cloustacen [1]	Carcinogenicity	: Not classified
Reproductive toxicity Not classified STOT-single exposure : Not classified STOT-repeated exposure : Not classified COUMARIN (9:-64-5) NOAEL (subcrime containmal/female.90) > 138.3 mg/kg body weight Animal: mouse, Animal sex: female days) > 200 mg/kg body weight Animal: rat, Guideline: OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies) PIPERONAL (120-57-0) > NOAEL (oral,rat.90 days) 300 mg/kg body weight Animal: rat, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test), Guideline: other: GAMMA OCTALACTONE (104-60-7) NOAEL (oral,rat.90 days) 300 mg/kg body weight Animal: rat, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test), Guideline other: GAMMA OCTALACTONE (104-60-7) NOAEL (oral,rat.90 days) = 750 mg/kg body weight Animal: rat, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test), Guideline other: Spiration hazard : Not classified Viscosity, Kinematic : Not classified Storenty : Har product is not considered harmful to aquatic organisms or to cause long-term adverse effects if the environment. COUMARIN (9-64-5) ECS0-0-Cr		
STOT-single exposure : Not classified STOT-repeated exposure : Not classified COUMARIN (91-64-5) > 138.3 mg/kg body weight Animal: mouse, Animal sex: female MOAEL (subchronic,cratl.animal/female,90 > 138.3 mg/kg body weight Animal: mouse, Animal sex: female days) > 200 mg/kg body weight Animal: rat, Guideline: OECD Guideline 453 (Combined Chronic Toxicity (Facrinogenicity Studies) PIPERONAL (120-57-0) NOAEL (oral, rat,90 days) NOAEL (oral, rat,90 days) 300 mg/kg body weight Animal: rat, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test), Guideline: other: GAMMA OCTALACTONE (104-50-7) NOAEL (oral, rat,90 days) NOAEL (oral, rat,90 days) * 750 mg/kg body weight Animal: rat, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test), Guideline tother: Kocolity, Kinematic : Not classified Symptoms/effects after skin contact : May cause an allergic skin reaction. SECTION 12: Ecological information : The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment. COUMARIN (91-64-5) : Closo - Fish [2] : 0.5 mg/l Test organisms (species): Daration: '21 d' LCG0 - Fish [1] : 2.94 mg/l Test organisms (species): Daration: '21 d'	IARC group	3 - Not classifiable
STOT-repeated exposure : Not classified COUMARIN (91-64-5) > 138.3 mg/kg body weight Animal: mouse, Animal sex: female Agay > 138.3 mg/kg body weight Animal: rat, Guideline: OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies) PIPERONAL (120-57-0) > 200 mg/kg body weight Animal: rat, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test), Guideline: other: GAMMA OCTALACTONE (104-50-7) NOAEL (crait,rat,90 days) > 2700 mg/kg body weight Animal: rat, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test), Guideline: other: GAMMA OCTALACTONE (104-50-7) NOAEL (crait,rat,90 days) ~ 750 mg/kg body weight Animal: rat, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test) Aspiration hazard : Not data available Not classified Symptoms/effects after skin contact : May cause an allergic skin reaction. SECTION 12: Ecological information Ecology - general : The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment. COUMARIN (91-64-5) LC50 - Fish [1] 2.94 mg/l Test organisms (species): Daphnia sp. LC50 - Fish [2] 1324 mg/l Test organisms (species): Duration: '21 d' NOEC chronic fish	Reproductive toxicity	: Not classified
COUMARIN (91-54-5) > 138.3 mg/kg body weight Animal: mouse, Animal sex: female MOAEL (subchronic.oral,animal/female,90 > 138.3 mg/kg body weight Animal: mouse, Animal sex: female days) > 200 mg/kg body weight Animal: rat, Guideline: OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies) PIPERONAL (120-57-0) 300 mg/kg body weight Animal: rat, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test), Guideline: other: CAMMA OCTALACTONE (104-50-7) NOAEL (oral,rat,90 days) = 750 mg/kg body weight Animal: rat, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test), Guideline: other: CAMMA OCTALACTONE (104-50-7) NOAEL (oral,rat,90 days) = 750 mg/kg body weight Animal: rat, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test) Aspiration hazard : No data available Screening Test) Symptoms/effects after skin contact : May cause an allergic skin reaction. SECTION 12: Ecological information Ecology - general : The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment. COUMARIN (91-64-5) ECS0 - Fish [1] 2.94 mg/l Test organisms (species): Duration: '30 d' LCS0 - Fish [2] 1324 mg/l Test organisms (species): Duration: '21 d'	STOT-single exposure	: Not classified
NOAEL (subchronic,oral,animal/female,90 days) > 138.3 mg/kg body weight Animal: mouse, Animal sex: female Trivel, MALTOL (4940-11-8) NOAEL (oral,rat,90 days) > 200 mg/kg body weight Animal: rat, Guideline: OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Study with the Reproduction / Developmental Toxicity Screening Test), Guideline: other: GAMMA OCTALACTONE (104-50-7) > NOAEL (oral, rat,90 days) = 750 mg/kg body weight Animal: rat, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test), Guideline: other: GAMMA OCTALACTONE (104-50-7) > NOAEL (oral, rat,90 days) = 750 mg/kg body weight Animal: rat, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test), Guideline: other: GAMMA OCTALACTONE (104-50-7) No Cata available Symptoms/effects after skin contact : Not classified Viscosity, Kinematic : No tata available Symptoms/effects after skin contact : May cause an allergic skin reaction. ECOION 12: Ecological information Ecology - general 12.1 Toxicity Ecology - general : The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment. COUMARIN (91-64-5) Ecology in gift Test organi	STOT-repeated exposure	: Not classified
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NOAEL (oral, rat, 90 days) ≥ 200 mg/kg body weight Animal: rat, Guideline: OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies) PIPERONAL (120-57-0) NOAEL (oral, rat, 90 days) 300 mg/kg body weight Animal: rat, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test), Guideline: other: CAMMA OCTALACTONE (104-50-7) NOAEL (oral, rat, 90 days) = 750 mg/kg body weight Animal: rat, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test) Aspiration hazard : Not classified Viscosity, kinematic Viscosity, kinematic : Not classified Symptoms/effects after skin contact : May cause an allergic skin reaction. SECTION 12: Ecological information Ecology - general : The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment. COUMARIN (91-64-5) Ecology - general : The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment. LC50 - Fish [1] 2.94 mg/l Test organisms (species): Ecology - general : The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment. COUMARIN (91-64-5) EC50 - Crustacea [1] 8012 mg/l Test organisms (specices): Duration: '21 d' <td< td=""><td></td><td>> 138.3 mg/kg body weight Animal: mouse, Animal sex: female</td></td<>		> 138.3 mg/kg body weight Animal: mouse, Animal sex: female
Toxicity / Carcinogenicity Studies) PIPERONAL (120-57-0) NOAEL (oral,rat,90 days) 300 mg/kg body weight Animal: rat, Guideline: OECD Guideline 422 (Combined Repeated Guideline: other: GAMMA OCTALACTONE (104-50-7) * 750 mg/kg body weight Animal: rat, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test), Guideline: other: GAMMA OCTALACTONE (104-50-7) * 750 mg/kg body weight Animal: rat, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test) Aspiration hazard : Not classified Viscosity, kinematic : Not data available Symptoms/effects after skin contact : May cause an allergic skin reaction. SECTION 12: Ecological information Ecology - general 121. Toxicity Ecology - general : The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment. COUMARIN (91-64-5) EC50 - Crustacea [1] LC50 - Fish [2] 1324 mg/l Test organisms (species): Duration: '21 d' NOEC chronic) 0.5 mg/l Test organisms (species): Duration: '21 d' NOEC chronic fish 0.191 mg/l Test organisms (species): Duration: '21 d' NOEC chronic fish 0.191 mg/l Test organisms (species): Duration: '21 d' <t< td=""><td>ETHYL MALTOL (4940-11-8)</td><td></td></t<>	ETHYL MALTOL (4940-11-8)	
NOAEL (oral,rat,90 days) 300 mg/kg body weight Animal: rat, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test), Guideline: other: GAMMA OCTALACTONE (104-50-7) * 750 mg/kg body weight Animal: rat, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test) Aspiration hazard : Not classified Viscosity, kinematic : No data available Symptoms/effects after skin contact : May cause an allergic skin reaction. SECTION 12: Ecological information 124. 12.1. Toxicity Ecology - general : The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment. COUMARIN (91-64-5) 102.94 mg/l Test organisms (species): LC50 - Fish [2] 1322 mg/l Test organisms (species): Duration: '21 d' NOEC chronic fish 0.191 mg/l Test organisms (species): Duration: '30 d' ETHYL MALTOL (4940-11-8) LC50 - Crustacea [1] LC50 - Crustacea [1] > 85 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Oncorhynchus mykiss, Semi-static system, Fresh water, Experimental value) EC50 - Crustacea [1] 27 mg/l (OECD 203: Fish, Acute Inmobiliation Test, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, EC50 - Grustacea [1]	NOAEL (oral,rat,90 days)	
Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test), Guideline: other: GAMMA OCTALACTONE (104-50-7) NOAEL (oral,rat,90 days) = 750 mg/kg body weight Animal: rat, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test) Aspiration hazard : Not classified Viscosity, kinematic : Not classified Symptoms/effects after skin contact : May cause an allergic skin reaction. SECTION 12: Ecological information 12.1. 12.1. Toxicity Ecology - general : The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment. COUMARIN (91-64-5) LC50 - Fish [1] LC50 - Fish [2] 1324 mg/l Test organisms (species): Daphnia sp. LC50 - Fish [2] 1324 mg/l Test organisms (species): Duration: '30 d' CHY MALTOL (4940-11-3) LC50 - Fish [1] LC50 - Fish [1] > 85 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Oncorhynchus mykiss, Semi-static system, Fresh water, Experimental value) EC50 - Crustacea [1] 2.5 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Opphina magna, Static system, Fresh water, Experimental value) EC50 - Grustacea [1] 2.6 mg/l (OECD 203: Daphnia ap. Acute Immobilisation Test, 48 h, Daphn	PIPERONAL (120-57-0)	
NOAEL (oral,rat,90 days) = 750 mg/kg body weight Animal: rat, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test) Aspiration hazard : Not classified Viscosity, kinematic : No data available Symptoms/effects after skin contact : May cause an allergic skin reaction. SECTION 12: Ecological information 124. Toxicity Toxicity Ecology - general : The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment. COUMARIN (91-64-5) LC50 - Fish [1] 2.94 mg/l Test organisms (species): Daphnia sp. LC50 - Fish [2] 1324 mg/l Test organisms (species): Duration: '21 d' NOEC chronic fish 0.191 mg/l Test organisms (species): Duration: '21 d' NOEC chronic fish 0.191 mg/l Test organisms (species): Duration: '30 d' ETHYL MALTOL (4940-11-8) > 85 mg/l (OECD 202: Tesh, Acute Toxicity Test, 96 h, Oncorhynchus mykiss, Semi-static system, Fresh water, Experimental value) ErC50 - Crustacea [1] > 85 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value) ErC50 - Crustacea [1] > 70 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value) ErC50 algae <td>NOAEL (oral,rat,90 days)</td> <td>Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test),</td>	NOAEL (oral,rat,90 days)	Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test),
Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test) Aspiration hazard : Not classified /iscosity, kinematic : No data available Symptoms/effects after skin contact : May cause an allergic skin reaction. SECTION 12: Ecological information	GAMMA OCTALACTONE (104-50-7)	
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system, Fresh water, Experimental value) ErC50 algae 31 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Pseudokirchneriella subcapitata, Static	LC50 - Fish [1]	
	EC50 - Crustacea [1]	system, Fresh water, Experimental value)
	ErC50 algae	31 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value)

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GAMMA OCTALACTONE (104-50-7)	
LC50 - Fish [1]	> 3125 mg/l Test organisms (species): other:
EC50 - Crustacea [1]	70.79 mg/l Test organisms (species): Daphnia magna
EC50 - Crustacea [2]	≈ 3176 mg/l Test organisms (species): Daphnia magna

12.2. Persistence and degradability

ETHYL MALTOL (4940-11-8)	
Persistence and degradability	Readily biodegradable in water.
PIPERONAL (120-57-0)	
Persistence and degradability	Biodegradable in the soil. Readily biodegradable in water.
ThOD	1.71 g O ₂ /g substance

12.3. Bioaccumulative potential

ETHYL MALTOL (4940-11-8)	
Partition coefficient n-octanol/water (Log Pow)	2.9 (Practical experience/observation, OECD 117: Partition Coefficient (n-octanol/water), HPLC method, 25 °C)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).
PIPERONAL (120-57-0)	
Partition coefficient n-octanol/water (Log Pow)	1.2 (Practical experience/observation, OECD 117: Partition Coefficient (n-octanol/water), HPLC method, 35 °C)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

12.4. Mobility in soil

ETHYL MALTOL (4940-11-8)		
Ecology - soil	No (test)data on mobility of the substance available.	
PIPERONAL (120-57-0)		
Ecology - soil	No (test)data on mobility of the substance available.	

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations				
13.1. Disposal methods				
Waste treatment methods	: Dispose of contents/container in accordance with licensed collector's sorting instructions.			
SECTION 14: Transport information				
Department of Transportation (DOT)				
In accordance with DOT				
Not regulated				
Transportation of Dangerous Goods				

Transportation of Danger

Not applicable

Transport by sea Not applicable

Air transport

Not applicable

06/30/2022

SECTION 15: Regulatory information

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

COUMARIN (91-64-5)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

GAMMA OCTALACTONE (104-50-7)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2. International regulations

CANADA

COUMARIN (91-64-5)

Listed on the Canadian DSL (Domestic Substances List)

ETHYL MALTOL (4940-11-8)

Listed on the Canadian DSL (Domestic Substances List)

PIPERONAL (120-57-0)

Listed on the Canadian DSL (Domestic Substances List)

GAMMA OCTALACTONE (104-50-7)

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

No additional information available

National regulations

ETHYL MALTOL (4940-11-8)

Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active Listed on INSQ (Mexican National Inventory of Chemical Substances)

PIPERONAL (120-57-0)

Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active Listed on INSQ (Mexican National Inventory of Chemical Substances)

15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

SECTION 16: Other information

Full text of H-phrases:

 dir text of ri-printages.		
H301	Toxic if swallowed	
H302	Harmful if swallowed	
H311	Toxic in contact with skin	
H315	Causes skin irritation	
H317	May cause an allergic skin reaction	

SDS US (GHS HazCom 2012)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.