SECTION 1. IDENTIFICATION

Product name	:	PARSOL® MCX
Substance name	:	2-Propenoic acid, 3-(4-methoxyphenyl)-, 2-ethylhexyl ester

Manufacturer or supplier's details

Company name of supplier	:	DSM Nutritional Products
Address	:	45 Waterview Blvd Parsippany NJ 07054-1298
Telephone	:	(908) 475-7373
Telefax	:	(908) 475-7406
Emergency telephone number	:	1-800-424-9300 (24 HR CHEMTREC, CA & US); Outside CA & US +1-703-572-3887 (COLLECT CALLS ACCEPTED)
E-mail address of person responsible for the SDS	:	sds.nutritionalproducts@dsm.com

Initial Supplier Identifier
Données relatives au fournisseur
Univar Solutions Canada Ltd.
64 Arrow Road
North York, ON M9M 2L9
Telephone: 1-866-686-4827

Recommended use of the chemical and restrictions on use

Recommended use	:	UV filter Ingredient for personal care products

SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200)

Not a hazardous substance or mixture.

GHS label elements

Not a hazardous substance or mixture.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms	:	Ethylhexyl Methoxycinnamate (INCI) Octinoxate 2-ethylhexyl 3-(4-methoxyphenyl)acrylate 2-ethylhexyl trans-4-methoxycinnamate, CAS-No. 83834-59-7
Molecular formula	:	C18-H26-O3
Brief description of the product	:	Substance
Substance name	:	2-Propenoic acid, 3-(4-methoxyphenyl)-, 2-ethylhexyl ester
CAS-No.	:	5466-77-3

Hazardous components

No hazardous ingredients

Further ingredients

Component	CAS-No.	Weight percent
2-ethylhexyl 4-methoxycinnamate	5466-77-3	95 - 100

SECTION 4. FIRST AID MEASURES

General advice	:	No hazards which require special first aid measures.
If inhaled	:	Move to fresh air. Consult a physician after significant exposure.
In case of skin contact	:	Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. If symptoms persist, call a physician.
In case of eye contact	:	Flush eyes with water as a precaution. Remove contact lenses. Protect unharmed eye. Keep eye wide open while rinsing. If eye irritation persists, consult a specialist.
If swallowed	:	Rinse mouth with water. Do not give milk or alcoholic beverages. Never give anything by mouth to an unconscious person. If symptoms persist, call a physician.
Most important symptoms and effects, both acute and delayed	:	No specific symptoms known.
Notes to physician	:	Treat symptomatically.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media	:	Alcohol-resistant foam Dry chemical Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Unsuitable extinguishing media	:	High volume water jet
Specific hazards during firefighting	:	Do not allow run-off from fire fighting to enter drains or water courses.
Further information	:	Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
Special protective equipment for firefighters	:	In the event of fire, wear self-contained breathing apparatus.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emer-	:	Use personal protective equipment. Ensure adequate ventilation.

gency procedures

Environmental precautions	:	Do not flush into surface water or sanitary sewer system. Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities.
Methods and materials for containment and cleaning up	:	Wipe up with absorbent material (e.g. cloth, fleece). Keep in suitable, closed containers for disposal.

SECTION 7. HANDLING AND STORAGE

Advice on protection against fire and explosion	:	Take necessary action to avoid static electricity discharge. Product will burn under fire conditions.
Advice on safe handling	:	Avoid contact with skin and eyes. For personal protection see section 8. Dispose of rinse water in accordance with local and national regulations.
Conditions for safe storage	:	To maintain product quality, do not store in heat or direct sunlight. Keep container tightly closed and dry. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Contains no substances with occupational exposure limit values.

Personal protective equipment

Respiratory protection	:	No personal respiratory protective equipment normally required. In the case of vapour formation use a respirator with an approved filter.
Hand protection Remarks	:	Consider the hazard characteristics of this product and any special workplace conditions when selecting the appropriate type of protective gloves. Glove material: for example nitrile rubber
Eye protection	:	Safety glasses with side-shields
Skin and body protection	:	Choose body protection according to the amount and concentration of the dangerous substance at the work place.
Hygiene measures	:	Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	:	liquid
Colour	:	pale yellow
Odour	:	slight, characteristic
Odour Threshold	:	No information available.
pH	:	No data available
Freezing point	:	-68.3 °C (OECD Test Guideline 102)
Boiling point/boiling range	:	382 °C (1,013 hPa)
		185 - 195 °C (1 hPa)
		140 - 150 °C (0.1 hPa)
Flash point	:	399 °F (204 °C) (DIN 51758)
Evaporation rate	:	not determined
Lower explosion limit	:	not determined
Upper explosion limit	:	not determined
Vapour pressure	:	< 0.001 hPa (25 °C; calculated value)
		0.3 hPa (154 °C)
Relative vapour density	:	not determined
Relative density	:	1.01 (20 °C; OECD Test Guideline 109)
Density	:	0.998 g/cm3 (20 °C; OECD Test Guideline 109)
Water solubility	:	0.22 - 0.75 mg/l (ca. 21 °C; OECD Test Guideline 105) immiscible
Solubility in other solvents	:	Ethanol: completely miscible
		Oils and fats: completely miscible
		Isopropanol: completely miscible
Partition coefficient: n-octanol/water	:	log Pow > 6 (23 °C; OECD Test Guideline 117)
Auto-ignition temperature	:	738 °F (392 °C) (at 977 hPa, DIN 51794)
Thermal decomposition	:	No data available
Viscosity, dynamic	:	99.8 mPa.s (20 °C, OECD Test Guideline 114)
		31.6 mPa.s (40 °C, OECD Test Guideline 114)
		12.3 mPa.s (60 °C)
		2.2 mPa.s (130 °C)
Explosive properties	:	Not explosive
Oxidizing properties	:	No data available

Other information

Refractive index	:	1.542 - 1.548 (20 °C)
Molecular weight	:	290.4 g/mol

SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	No hazards to be specially mentioned.
Chemical stability	:	Stable under recommended storage conditions.

Possibility of hazardous reactions	:	Possible incompatibility with materials listed under section 10.5.
Conditions to avoid	:	Heat
Incompatible materials	:	Strong acids and strong bases Strong oxidizing agents
Hazardous decomposition products	:	No decomposition if used as directed.

SECTION 11. TOXICOLOGICAL INFORMATION

Acute oral toxicity	:	LD50 (Rat): > 5,000 mg/kg
	:	LD50 (Mouse): > 8,000 mg/kg
Acute inhalation toxicity	:	LC0 (Rat, 4 h): >= 0.511 mg/l (OECD Test Guideline 403)
Acute dermal toxicity	:	LD0 (Rat): >= 126.3 mg/kg (OECD Test Guideline 402)
Skin irritation	:	Mild skin irritation (Rabbit, Draize Test)
	:	No skin irritation (Human, HRIPT: Human Repeat Insult Patch Test, 10% solution)
	:	not phototoxic (Guinea pig)
Eye irritation	:	No eye irritation (Rabbit)
Sensitisation	:	Did not cause sensitization. (Guinea pig, OECD Test Guideline 406)
	:	Did not cause sensitization. (human, 10% solution)
	:	no photoallergenic skin reaction (Guinea pig)
Genotoxicity in vitro	:	not mutagenic, not genotoxic (Various test systems)
	:	not photomutagenic
Genotoxicity in vivo	:	not genotoxic (Mouse, Bone marrow, OECD Test Guideline 474)
Carcinogenicity	:	No indication for carcinogenicity known.
IARC		No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA		No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.
NTP		No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
Reproductive toxicity	:	A 2-generation study in rats showed no negative effects on reproduction parameters. NOAEL: 450 mg/kg bw/d (Rat, Oral, OECD Test Guideline 416)
Teratogenicity	:	not teratogenic not embryotoxic (several species)
STOT - single exposure (Acute exposure)	:	The substance or mixture is not classified as specific target organ toxicant, single exposure.
STOT - repeated exposure	:	NOAEL (Oral, Rat) : 450 mg/kg bw/d Sub-chronic toxicity study (90-day) (OECD Test Guideline 408)
	:	LOAEL (Oral, Rat) : 1000 mg/kg bw/d Sub-chronic toxicity study (90-day) (OECD Test Guideline 408)
	:	NOAEL (Dermal, Rat) : ca. 5000 mg/kg bw/d Subacute toxicity study (28 days) (OECD Test Guideline 410)
Further information	:	The product passes into and partly through the skin of rats and pigs.
	:	The absorption through human skin is very low.
Aspiration toxicity	:	No aspiration toxicity classification

SECTION 12. ECOLOGICAL INFORMATION

Toxicity

Toxicity to fish	:	Cyprinus carpio (Carp) LC50 (96 h) > 100 mg/l (nominal concentration) (OECD Test Guideline 203)
Toxicity to daphnia and other aquatic invertebrates	:	Daphnia magna (Water flea) EC50 (48 h) > 100 mg/l (nominal concentration) (OECD Test Guideline 202)
Toxicity to algae	:	Pseudokirchneriella subcapitata (green algae) ErC50 (72 h) > 100 mg/l (nominal concentration) (OECD Test Guideline 201)

: Lemna minor (duckweed)
NOEC (7 d) >= 0.06 mg/l
The substance tested had no adverse effects up to the maximum water solubility.
(OECD Test Guideline 221)

Toxicity to bacteria : activated sludge
NOEC (0.5 h) >= 1,000 mg/l
(nominal concentration)
No inhibition was observed on microbial respiration.
(OECD Test Guideline 209)

Toxicity to fish (Chronic toxicity) : Danio rerio (zebra fish)
Lowest Observed Effect Concentration (63 d) 46.9 µg/l
(OECD Test Guideline 234)

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : Daphnia magna (Water flea)
NOELR (21 d) >= 60 µg/l
(nominal concentration)
(OECD Test Guideline 211)

Persistence and degradability

Biodegradability : Readily biodegradable.
78 % (28 d)
69 %, (10 d)
(OECD Test Guideline 301F)

: Ultimately anaerobically biodegradable.
67 % (79 d)
10 %, (10 d)

Photodegradation : Decomposes rapidly in contact with light.
Half-life (direct photolysis): 5 - 9 d (0.12 mg/l, Water, Xenon lamp, 23 °C)

Stability in water : DT50: > 365 d (20 °C, pH 4, OECD Test Guideline 111)
Stable
: DT50: > 365 d (20 °C, pH 7)

: DT50: > 365 d (20 °C, pH 9)

Bioaccumulative potential

Bioaccumulation : Species: Oncorhynchus mykiss (rainbow trout)
Exposure time: 5 d
Temperature: 15 °C
Concentration: 0.084 mg/l
Bioconcentration factor (BCF): 279 - 432
Method: OECD Test Guideline 305

: Concentration: 0.731 mg/l
Bioconcentration factor (BCF): 64 - 174

: Elimination: Depuration DT50: 1.5 - 1.7 days, DT90: 5.0 - 5.5 days

Partition coefficient: n-octanol/water : log Pow > 6 (23 °C ; OECD Test Guideline 117)

Mobility in soil

Distribution among environmental compartments	:	Adsorption log Koc 4.12 (calculated value)

Results of PBT and vPvB assessment

Assessment	:	The substance does not fulfill the PBT criteria.
	:	The substance does not fulfill the vPvB criteria.

Other adverse effects

Regulation	40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances
Remarks	This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

Additional ecological information	:	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues	:	Discharge into the environment must be avoided. Do not contaminate ponds, waterways or ditches with chemical or used container. Do not dispose of waste into sewer. Offer surplus and non-recyclable solutions to a licensed disposal company. User must determine if any wastes generated exhibit hazardous characteristics as per 40 CFR Part 261 or other national / local legislation.
Contaminated packaging	:	Dispose of as unused product. Do not re-use empty containers.

SECTION 14. TRANSPORT INFORMATION

International Regulations

UNRTDG

UN number	:	UN 3082
Proper shipping name	:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (2-ethylhexyl 4-methoxycinnamate)
Class	:	9
Packing group	:	III
Labels	:	9

IATA-DGR

UN/ID No.	:	UN 3082
Proper shipping name	:	Environmentally hazardous substance, liquid, n.o.s. (2-ethylhexyl 4-methoxycinnamate)
Class	:	9
Packing group	:	III
Labels	:	Miscellaneous

Packing instruction (cargo aircraft)	:	964
Packing instruction (passenger aircraft)	:	964
Environmentally hazardous	:	yes

IMDG-Code

UN number	:	UN 3082
Proper shipping name	:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (2-ethylhexyl 4-methoxycinnamate)
Class	:	9
Packing group	:	III
Labels	:	9
EmS Code	:	F-A, S-F
Marine pollutant	:	yes

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

National Regulations

49 CFR

UN/ID/NA number	:	UN 3082
Proper shipping name	:	Environmentally hazardous substance, liquid, n.o.s. (2-ethylhexyl 4-methoxycinnamate)
Class	:	9
Packing group	:	III
Labels	:	CLASS 9
ERG Code	:	171
Marine pollutant	:	yes(2-ethylhexyl 4-methoxycinnamate)
General advice	:	49CFR: not regulated as a dangerous good in non-bulk packaging
Remarks	:	Shipment by ground under DOT is non-regulated; however it may be shipped per the applicable hazard classification to facilitate multi-modal transport involving ICAO (IATA) or IMO.

Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

SECTION 15. REGULATORY INFORMATION

EPCRA - Emergency Planning and Community Right-to-Know Act

CERCLA Reportable Quantity

This material does not contain any components with a CERCLA RQ.

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 302 Extremely Hazardous Substances Threshold Planning Quantity

This material does not contain any components with a section 302 EHS TPQ.

SARA 311/312 Hazards : No SARA Hazards

SARA 313 : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Clean Air Act

This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).
This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).
This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).
This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCMI Intermediate or Final VOC's (40 CFR 60.489).

Clean Water Act

This product does not contain any Hazardous Substances listed under the U.S. CleanWater Act, Section 311, Table 116.4A.
This product does not contain any Hazardous Chemicals listed under the U.S. CleanWater Act, Section 311, Table 117.3.
This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307
This product does not contain any priority pollutants related to the U.S. Clean Water Act

US State Regulations

Massachusetts Right To Know

No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know

2-ethylhexyl 4-methoxycinnamate	5466-77-3

Maine Chemicals of High Concern

2-ethylhexyl 4-methoxycinnamate	5466-77-3

Vermont Chemicals of High Concern

2-ethylhexyl 4-methoxycinnamate	5466-77-3

Washington Chemicals of High Concern

2-ethylhexyl 4-methoxycinnamate	5466-77-3

TSCA list

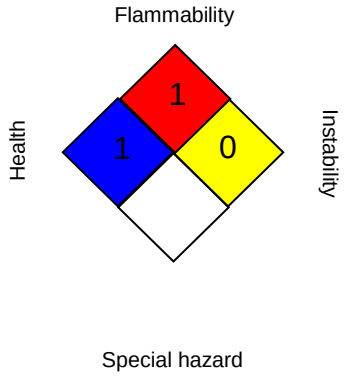
No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification requirements.

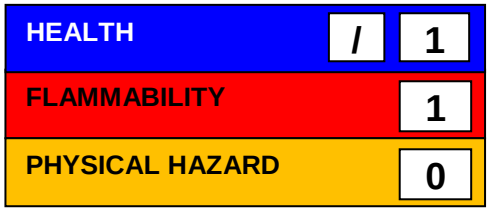
SECTION 16. OTHER INFORMATION

Further information

NFPA 704:



HMIS® IV:



HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. The "*" represents a chronic hazard, while the "/" represents the absence of a chronic hazard.

Full text of other abbreviations

AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative
ACGIH = American Conference of Governmental Industrial Hygienists. CFR = Code of Federal Regulations. EPA = Environmental Protection Agency. NIOSH = National Institute of Occupation-

al Safety and Health. OSHA = Occupational Safety and Health Administration. STEL = Short term exposure limit. TLV = Threshold Limit Value. TLV-C = Ceiling Limit Value. TWA = Time Weighted Average.

Revision Date : 09/07/2022

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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