Safety Data Sheet

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SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier
3M(TM) Screen Printing Ink 1903 White

Product Identification Numbers
75-3469-4417-8

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses
Ink

1.3. Details of the supplier of the safety data sheet

ADDRESS: 3M Israel, 91 Medinat Ha'Yehudim Street, Herzeliya 46120
Telephone: 09-961 5000
E Mail: innovation.il@mmm.com
Website: www.3M.com/il

1.4. Emergency telephone number
09-961 5000

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture
CLP REGULATION (EC) No 1272/2008

CLASSIFICATION:
Flammable Liquid, Category 3 - Flam. Liq. 3; H226
Serious Eye Damage/Eye Irritation, Category 2 - Eye Irrit. 2; H319
Skin Corrosion/Irritation, Category 2 - Skin Irrit. 2; H315
Skin Sensitization, Category 1A - Skin Sens. 1A; H317
Hazardous to the Aquatic Environment (Chronic), Category 3 - Aquatic Chronic 3; H412

For full text of H phrases, see Section 16.

2.2. Label elements
CLP REGULATION (EC) No 1272/2008

SIGNAL WORD
Warning

Symbols:
GHS02 (Flame) |GHS07 (Exclamation mark) |

Pictograms

Ingredients:

Ingredient	C.A.S. No.	% by Wt
Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	915-687-0	< 0.5
Triphenyl Phosphite	101-02-0	< 0.1

HAZARD STATEMENTS:

H226	Flammable liquid and vapor.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H412	Harmful to aquatic life with long lasting effects.

PRECAUTIONARY STATEMENTS

Prevention:

P210A	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P280E	Wear protective gloves.

Response:

P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333 + P313	If skin irritation or rash occurs: Get medical advice/attention.
P370 + P378G	In case of fire: Use a fire fighting agent suitable for flammable liquids such as dry chemical or carbon dioxide to extinguish.

Disposal:

P501	Dispose of contents/container in accordance with applicable local/regional/national/international regulations.

6% of the mixture consists of components of unknown acute oral toxicity.
6% of the mixture consists of components of unknown acute dermal toxicity.
28% of the mixture consists of components of unknown acute inhalation toxicity.
Contains 6% of components with unknown hazards to the aquatic environment.

Notes on labelling:

Nota P applies for CAS# 64742-95-6

2.3. Other hazards

None known

SECTION 3: Composition/information on ingredients

Ingredient	C.A.S. No.	EU Inventory	% by Wt	Classification
Titanium Dioxide	13463-67-7	236-675-5	25 - 40	
Cyclohexanone	108-94-1	203-631-1	20 - 30	**Flam. Liq. 3**, H226; **Acute Tox. 4**, H332 (CLP) **Acute Tox. 4**, H312; **Acute Tox. 4**, H302; **Skin Irrit. 2**, H315; **Eye Irrit. 2**, H319 (Self Classified)
Et 3-Ethoxypropionat	763-69-9	212-112-9	10 - 20	**Flam. Liq. 3**, H226 (Self Classified)
VINYL ACETATE-VINYL ALCOHOL-VINYL CHLORIDE POLYMER	25086-48-0		5 - 15	
ETHYL ACRYLATE-METHYL METHACRYLATE POLYMER	9010-88-2		5 - 10	
2-BUTOXYETHYL ACETATE	112-07-2	203-933-3	5 - 10	**Acute Tox. 4**, H332; **Acute Tox. 4**, H312 (CLP)
POLYMERIC PLASTICIZER	Trade Secret		3 - 7	
Diundecyl Phthalate	3648-20-2	222-884-9	1 - 5	**Aquatic Chronic 3**, H412 (Self Classified)
Silica gel, pptd., cryst.-free	112926-00-8		1 - 5	
Aluminum Oxide	1344-28-1	215-691-6	0 - 5	
Alumina Trihydrate	21645-51-2	244-492-7	0 - 5	
2,4-DIHYDROXYBENZOPHENONE	131-56-6	205-029-4	< 1	**Aquatic Chronic 2**, H411 (Vendor) **Eye Irrit. 2**, H319 (Self Classified)
Ca 2-Ethylhexanoate	136-51-6	205-249-0	< 0.5	**Eye Dam. 1**, H318; **Repr. 2**, H361df (Self Classified)
LIGHT AROMATIC SOLVENT NAPHTHA (PETROLEUM)	64742-95-6	265-199-0	< 0.5	**Asp. Tox. 1**, H304 - Nota P (CLP) **Flam. Liq. 3**, H226 (Vendor) **Skin Irrit. 2**, H315; **STOT SE 3**, H336 (Self Classified)
Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate		915-687-0	< 0.5	**Aquatic Acute 1**, H400,M=1; **Aquatic Chronic 1**, H410,M=1 (Vendor) **Skin Sens. 1A**, H317 (Self Classified)
HEAVY AROMATIC SOLVENT NAPHTHA (PETROLEUM)	64742-94-5	265-198-5	< 0.5	**Asp. Tox. 1**, H304 (CLP) **Flam. Liq. 3**, H226; **Skin Irrit. 2**, H315; **STOT SE 3**, H336; **Aquatic Acute 1**, H400,M=1; **Aquatic Chronic 1**, H410,M=1 (Self Classified)
Triphenyl Phosphite	101-02-0	202-908-4	< 0.1	**Skin Irrit. 2**, H315; **Eye Irrit. 2**, H319; **Aquatic Acute 1**, H400,M=1; **Aquatic Chronic 1**,

				H410,M=1 (CLP) **Acute Tox. 4**, H302; **Skin Sens. 1A**, H317 (Self Classified)

Any entry in the EC# column that begins with the numbers 6, 7, 8, or 9 are a Provisional List Number provided by ECHA pending publication of the official EC Inventory Number for the substance.
Please see section 16 for the full text of any H statements referred to in this section

For information on ingredient occupational exposure limits or PBT or vPvB status, see sections 8 and 12 of this SDS

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation:
Remove person to fresh air. If you feel unwell, get medical attention.

Skin Contact:
Immediately wash with soap and water. Remove contaminated clothing and wash before reuse. If signs/symptoms develop, get medical attention.

Eye Contact:
Immediately flush with large amounts of water. Remove contact lenses if easy to do. Continue rinsing. Get medical attention.

If Swallowed:
Rinse mouth. If you are concerned, get medical advice.

4.2. Most important symptoms and effects, both acute and delayed
See Section 11.1. Information on toxicological effects.

4.3. Indication of any immediate medical attention and special treatment required
Not applicable.

SECTION 5: Fire-fighting measures

5.1. Extinguishing media
In case of fire: Use a fire fighting agent suitable for flammable liquids such as dry chemical or carbon dioxide to extinguish.

5.2. Special hazards arising from the substance or mixture
Closed containers exposed to heat from fire may build pressure and explode.

Hazardous Decomposition or By-Products

Substance	Condition
Carbon monoxide	During Combustion
Carbon dioxide	During Combustion
Hydrogen Chloride	During Combustion

5.3. Advice for fire-fighters
Water may not effectively extinguish fire; however, it should be used to keep fire-exposed containers and surfaces cool and prevent explosive rupture.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
Evacuate area. Eliminate all ignition sources if safe to do so. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use only non-sparking tools. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapors, in accordance with good industrial hygiene practice. Warning! A motor could be an ignition source and could cause flammable gases or vapors in the spill area to burn or explode. Refer to other sections of this SDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment.

6.2. Environmental precautions
Avoid release to the environment. For larger spills, cover drains and build dikes to prevent entry into sewer systems or bodies of water.

6.3. Methods and material for containment and cleaning up
Contain spill. Cover spill area with a fire-extinguishing foam designed for use on solvents, such as alcohols and acetone, that can dissolve in water. An AR - AFFF type foam is recommended. Working from around the edges of the spill inward, cover with bentonite, vermiculite, or commercially available inorganic absorbent material. Mix in sufficient absorbent until it appears dry. Remember, adding an absorbent material does not remove a physical, health, or environmental hazard. Collect as much of the spilled material as possible using non-sparking tools. Place in a metal container approved for transportation by appropriate authorities. Clean up residue with detergent and water. Seal the container. Dispose of collected material as soon as possible.

6.4. Reference to other sections
Refer to Section 8 and Section 13 for more information

SECTION 7: Handling and storage

7.1. Precautions for safe handling
For industrial or professional use only. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use only non-sparking tools. Take precautionary measures against static discharge. Do not breathe dust/fume/gas/mist/vapors/spray. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wash contaminated clothing before reuse. Avoid contact with oxidizing agents (eg. chlorine, chromic acid etc.) Wear low static or properly grounded shoes. Use personal protective equipment (gloves, respirators, etc.) as required. To minimize the risk of ignition, determine applicable electrical classifications for the process using this product and select specific local exhaust ventilation equipment to avoid flammable vapor accumulation. Ground/bond container and receiving equipment if there is potential for static electricity accumulation during transfer.

7.2. Conditions for safe storage including any incompatibilities
Store in a well-ventilated place. Keep container tightly closed. Keep cool. Protect from sunlight. Store away from heat. Store away from acids. Store away from oxidizing agents.

7.3. Specific end use(s)
See information in Section 7.1 and 7.2 for handling and storage recommendations. See Section 8 for exposure controls and personal protection recommendations.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits
If a component is disclosed in section 3 but does not appear in the table below, an occupational exposure limit is not available for the component.

Ingredient	C.A.S. No.	Agency	Limit type	Additional Comments

Triphenyl Phosphite	101-02-0	CMRG	TWA:0.1 mg/m3	
Cyclohexanone	108-94-1	ACGIH	TWA:20 ppm;STEL:50 ppm	A3: Confirmed animal carcin., Skin Notation
2-BUTOXYETHYL ACETATE	112-07-2	ACGIH	TWA:20 ppm	A3: Confirmed animal carcin.
2-BUTOXYETHYL ACETATE	112-07-2	CMRG	TWA:25 ppm	Skin Notation
Aluminum Oxide	1344-28-1	CMRG	TWA:1 fiber/cc	
Aluminum, insoluble compounds	1344-28-1	ACGIH	TWA(respirable fraction):1 mg/m3	A4: Not class. as human carcin
Titanium Dioxide	13463-67-7	ACGIH	TWA:10 mg/m3	A4: Not class. as human carcin
Titanium Dioxide	13463-67-7	CMRG	TWA(as respirable dust):5 mg/m3	
Aluminum, insoluble compounds	21645-51-2	ACGIH	TWA(respirable fraction):1 mg/m3	A4: Not class. as human carcin
HEAVY AROMATIC SOLVENT NAPHTHA (PETROLEUM)	64742-94-5	CMRG	TWA:17 ppm(100 mg/m3)	
Kerosine (petroleum)	64742-94-5	ACGIH	TWA(as total hydrocarbon vapor, non-aerosol):200 mg/m3	A3: Confirmed animal carcin., Skin Notation
LIGHT AROMATIC SOLVENT NAPHTHA (PETROLEUM)	64742-95-6	CMRG	TWA:50 ppm(245 mg/m3)	
Et 3-Ethoxypropionat	763-69-9	CMRG	TWA:50 ppm;STEL:100 ppm	

ACGIH : American Conference of Governmental Industrial Hygienists
CMRG : Chemical Manufacturer's Recommended Guidelines
TWA: Time-Weighted-Average
STEL: Short Term Exposure Limit
CEIL: Ceiling

8.2. Exposure controls

8.2.1. Engineering controls
Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below relevant Exposure Limits and/or control dust/fume/gas/mist/vapors/spray. If ventilation is not adequate, use respiratory protection equipment. Use explosion-proof ventilation equipment.

8.2.2. Personal protective equipment (PPE)

Eye/face protection

Select and use eye/face protection to prevent contact based on the results of an exposure assessment. The following eye/face protection(s) are recommended:
Indirect Vented Goggles

Skin/hand protection
Select and use gloves and/or protective clothing approved to relevant local standards to prevent skin contact based on the results of an exposure assessment. Selection should be based on use factors such as exposure levels, concentration of the substance or mixture, frequency and duration, physical challenges such as temperature extremes, and other use conditions. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible gloves/protective clothing. Note: Nitrile gloves may be worn over polymer laminate gloves to improve dexterity.
Gloves made from the following material(s) are recommended: Butyl Rubber
Polymer laminate

If this product is used in a manner that presents a higher potential for exposure (eg. spraying, high splash potential etc.), then use of protective coveralls may be necessary. Select and use body protection to prevent contact based on the results of an

exposure assessment. The following protective clothing material(s) are recommended: Apron - polymer laminate

Respiratory protection

An exposure assessment may be needed to decide if a respirator is required. If a respirator is needed, use respirators as part of a full respiratory protection program. Based on the results of the exposure assessment, select from the following respirator type(s) to reduce inhalation exposure:
Half facepiece or full facepiece air-purifying respirator suitable for organic vapors and particulates

For questions about suitability for a specific application, consult with your respirator manufacturer.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Liquid
Specific Physical Form:	Liquid
Appearance/Odor	Solvent Odor, White Color
Odor threshold	*No Data Available*
pH	*Not Applicable*
Boiling point/boiling range	>=155.6 ºC
Melting point	*Not Applicable*
Flammability (solid, gas)	Not Applicable
Explosive properties:	Not Classified
Oxidising properties:	Not Classified
Flash Point	48.9 ºC [*Test Method:* Closed Cup]
Autoignition temperature	> 337.8 ºC
Flammable Limits(LEL)	0.5 %
Flammable Limits(UEL)	8.7 %
Vapor Pressure	<=453.3 Pa [@ 20 ºC]
Relative Density	1.48 [*Ref Std:* WATER=1]
Water solubility	Moderate
Solubility- non-water	*No Data Available*
Partition coefficient: n-octanol/ water	*No Data Available*
Evaporation rate	*No Data Available*
Vapor Density	> 1 [*Ref Std:* AIR=1]
Decomposition temperature	*No Data Available*
Viscosity	5,000 - 7,000 mPa-s [*Test Method:* Tested per ASTM protocol]
Density	1.48 g/ml

9.2. Other information

Percent volatile	35 - 45 %

SECTION 10: Stability and reactivity

10.1. Reactivity
This material may be reactive with certain agents under certain conditions - see the remaining headings in this section.

10.2. Chemical stability
Stable.

10.3. Possibility of hazardous reactions
Hazardous polymerization will not occur.

10.4. Conditions to avoid

Heat
Sparks and/or flames

10.5. Incompatible materials
Strong oxidizing agents

10.6. Hazardous decomposition products

Substance	Condition
None known.	

Refer to section 5.2 for hazardous decomposition products during combustion.

SECTION 11: Toxicological information

The information below may not agree with the EU material classification in Section 2 and/or the ingredient classifications in Section 3 if specific ingredient classifications are mandated by a competent authority. In addition, statements and data presented in Section 11 are based on UN GHS calculation rules and classifications derived from 3M assessments.

11.1. Information on Toxicological effects

Signs and Symptoms of Exposure

Based on test data and/or information on the components, this material may produce the following health effects:

Inhalation:
May be harmful if inhaled.
Respiratory Tract Irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

May cause additional health effects (see below).

Skin Contact:
May be harmful in contact with skin.
Skin Irritation: Signs/symptoms may include localized redness, swelling, itching, dryness, cracking, blistering, and pain.
Allergic Skin Reaction (non-photo induced): Signs/symptoms may include redness, swelling, blistering, and itching.

Eye Contact:
Severe Eye Irritation: Signs/symptoms may include significant redness, swelling, pain, tearing, cloudy appearance of the cornea, and impaired vision.

Ingestion:
May be harmful if swallowed.
Gastrointestinal Irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea.

May cause additional health effects (see below).

Additional Health Effects:

Single exposure may cause target organ effects:
Central Nervous System (CNS) Depression: Signs/symptoms may include headache, dizziness, drowsiness, incoordination, nausea, slowed reaction time, slurred speech, giddiness, and unconsciousness.

Prolonged or repeated exposure may cause target organ effects:

Blood Effects: Signs/symptoms may include generalized weakness and fatigue, skin pallor, changes in blood clotting time, internal bleeding, and/or hemoglobinemia.

Reproductive/Developmental Toxicity:
Contains a chemical or chemicals which can cause birth defects or other reproductive harm.

Carcinogenicity:
Contains a chemical or chemicals which can cause cancer.

Toxicological Data
If a component is disclosed in section 3 but does not appear in a table below, either no data are available for that endpoint or the data are not sufficient for classification.

Acute Toxicity

Name	Route	Species	Value
Overall product	Dermal		No data available; calculated ATE 2,000 - 5,000 mg/kg
Overall product	Inhalation-Vapor(4 hr)		No data available; calculated ATE 20 - 50 mg/l
Overall product	Ingestion		No data available; calculated ATE 2,000 - 5,000 mg/kg
Titanium Dioxide	Dermal	Rabbit	LD50 > 10,000 mg/kg
Titanium Dioxide	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 6.82 mg/l
Titanium Dioxide	Ingestion	Rat	LD50 > 10,000 mg/kg
Cyclohexanone	Dermal	Rabbit	LD50 >794, <3160 mg/kg
Cyclohexanone	Inhalation-Vapor (4 hours)	Rat	LC50 > 6.2 mg/l
Cyclohexanone	Ingestion	Rat	LD50 1,296 mg/kg
Et 3-Ethoxypropionat	Dermal	Rabbit	LD50 4,080 mg/kg
Et 3-Ethoxypropionat	Inhalation-Vapor (4 hours)	Rat	LC50 > 14.4 mg/l
Et 3-Ethoxypropionat	Ingestion	Rat	LD50 3,200 mg/kg
VINYL ACETATE-VINYL ALCOHOL-VINYL CHLORIDE POLYMER	Dermal	Rabbit	LD50 > 8,000 mg/kg
VINYL ACETATE-VINYL ALCOHOL-VINYL CHLORIDE POLYMER	Ingestion	Rat	LD50 > 8,000 mg/kg
2-BUTOXYETHYL ACETATE	Inhalation-Vapor	official classification	LC50 estimated to be 10 - 20 mg/l
2-BUTOXYETHYL ACETATE	Dermal	Rabbit	LD50 > 4,766 mg/kg
2-BUTOXYETHYL ACETATE	Ingestion	Rat	LD50 2,400 mg/kg
ETHYL ACRYLATE-METHYL METHACRYLATE POLYMER	Dermal		LD50 estimated to be > 5,000 mg/kg
ETHYL ACRYLATE-METHYL METHACRYLATE POLYMER	Ingestion		LD50 estimated to be 2,000 - 5,000 mg/kg
POLYMERIC PLASTICIZER			Data not available or insufficient for classification
Diundecyl Phthalate	Dermal	Rabbit	LD50 > 7,900 mg/kg
Diundecyl Phthalate	Ingestion	Rat	LD50 > 15,000 mg/kg
Alumina Trihydrate	Dermal		LD50 estimated to be > 5,000 mg/kg
Alumina Trihydrate	Ingestion	Rat	LD50 > 5,000 mg/kg
Silica gel, pptd., cryst.-free	Dermal	Rabbit	LD50 > 5,000 mg/kg
Silica gel, pptd., cryst.-free	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 0.691 mg/l
Silica gel, pptd., cryst.-free	Ingestion	Rat	LD50 > 5,110 mg/kg
Aluminum Oxide	Dermal		LD50 estimated to be > 5,000 mg/kg
Aluminum Oxide	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 2.3 mg/l

Aluminum Oxide	Ingestion	Rat	LD50 > 5,000 mg/kg
2,4-DIHYDROXYBENZOPHENONE	Ingestion	Rat	LD50 8,600 mg/kg
HEAVY AROMATIC SOLVENT NAPHTHA (PETROLEUM)	Dermal	Rabbit	LD50 > 2,000 mg/kg
HEAVY AROMATIC SOLVENT NAPHTHA (PETROLEUM)	Ingestion	Rat	LD50 > 5,000 mg/kg
Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	Dermal		LD50 estimated to be 2,000 - 5,000 mg/kg
Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	Ingestion	Rat	LD50 3,125 mg/kg
Ca 2-Ethylhexanoate	Dermal	Rabbit	LD50 > 5,000 mg/kg
LIGHT AROMATIC SOLVENT NAPHTHA (PETROLEUM)	Dermal	Rabbit	LD50 > 2,000 mg/kg
Ca 2-Ethylhexanoate	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 1.2 mg/l
Ca 2-Ethylhexanoate	Ingestion	Rat	LD50 > 5,000 mg/kg
LIGHT AROMATIC SOLVENT NAPHTHA (PETROLEUM)	Inhalation-Vapor (4 hours)	Rat	LC50 > 5.2 mg/l
LIGHT AROMATIC SOLVENT NAPHTHA (PETROLEUM)	Ingestion	Rat	LD50 > 5,000 mg/kg
Triphenyl Phosphite	Dermal	Rabbit	LD50 > 2,000 mg/kg
Triphenyl Phosphite	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 1.7 mg/l
Triphenyl Phosphite	Ingestion	Rat	LD50 1,590 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
Titanium Dioxide	Rabbit	No significant irritation
Cyclohexanone	Rabbit	Irritant
Et 3-Ethoxypropionat	Rabbit	No significant irritation
VINYL ACETATE-VINYL ALCOHOL-VINYL CHLORIDE POLYMER	Professional judgement	No significant irritation
2-BUTOXYETHYL ACETATE	Rabbit	Minimal irritation
ETHYL ACRYLATE-METHYL METHACRYLATE POLYMER	Professional judgement	No significant irritation
Alumina Trihydrate	Rabbit	No significant irritation
Silica gel, pptd., cryst.-free	Rabbit	No significant irritation
Aluminum Oxide	Rabbit	No significant irritation
2,4-DIHYDROXYBENZOPHENONE	Rabbit	No significant irritation
HEAVY AROMATIC SOLVENT NAPHTHA (PETROLEUM)	Rabbit	Irritant
Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	Rabbit	No significant irritation
Ca 2-Ethylhexanoate	Rabbit	No significant irritation
LIGHT AROMATIC SOLVENT NAPHTHA (PETROLEUM)	Rabbit	Irritant
Triphenyl Phosphite	Rabbit	Irritant

Serious Eye Damage/Irritation

Name	Species	Value
Titanium Dioxide	Rabbit	No significant irritation
Cyclohexanone	Rabbit	Severe irritant
Et 3-Ethoxypropionat	Rabbit	Mild irritant
VINYL ACETATE-VINYL ALCOHOL-VINYL CHLORIDE POLYMER	Professional judgement	No significant irritation
2-BUTOXYETHYL ACETATE	Rabbit	Mild irritant
ETHYL ACRYLATE-METHYL METHACRYLATE POLYMER	Professional judgemen	No significant irritation

	t	
Alumina Trihydrate	Rabbit	No significant irritation
Silica gel, pptd., cryst.-free	Rabbit	No significant irritation
Aluminum Oxide	Rabbit	No significant irritation
2,4-DIHYDROXYBENZOPHENONE	Rabbit	Severe irritant
HEAVY AROMATIC SOLVENT NAPHTHA (PETROLEUM)	Rabbit	Mild irritant
Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	Rabbit	No significant irritation
Ca 2-Ethylhexanoate	Rabbit	Corrosive
LIGHT AROMATIC SOLVENT NAPHTHA (PETROLEUM)	Rabbit	Mild irritant
Triphenyl Phosphite	Rabbit	Moderate irritant

Skin Sensitization

Name	Species	Value
Titanium Dioxide	Human and animal	Not sensitizing
Cyclohexanone	Guinea pig	Not sensitizing
Et 3-Ethoxypropionat	Guinea pig	Not sensitizing
Alumina Trihydrate	Guinea pig	Not sensitizing
Silica gel, pptd., cryst.-free	Human and animal	Not sensitizing
HEAVY AROMATIC SOLVENT NAPHTHA (PETROLEUM)	Guinea pig	Not sensitizing
Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	Guinea pig	Sensitizing
LIGHT AROMATIC SOLVENT NAPHTHA (PETROLEUM)	Guinea pig	Not sensitizing
Triphenyl Phosphite	Mouse	Sensitizing

Respiratory Sensitization

For the component/components, either no data are currently available or the data are not sufficient for classification.

Germ Cell Mutagenicity

Name	Route	Value
Titanium Dioxide	In Vitro	Not mutagenic
Titanium Dioxide	In vivo	Not mutagenic
Cyclohexanone	In vivo	Not mutagenic
Cyclohexanone	In Vitro	Some positive data exist, but the data are not sufficient for classification
Et 3-Ethoxypropionat	In Vitro	Not mutagenic
Silica gel, pptd., cryst.-free	In Vitro	Not mutagenic
Aluminum Oxide	In Vitro	Not mutagenic
Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	In Vitro	Not mutagenic
Ca 2-Ethylhexanoate	In Vitro	Not mutagenic

Carcinogenicity

Name	Route	Species	Value
Titanium Dioxide	Ingestion	Multiple animal species	Not carcinogenic
Titanium Dioxide	Inhalation	Rat	Carcinogenic
Cyclohexanone	Ingestion	Multiple animal species	Some positive data exist, but the data are not sufficient for classification
Alumina Trihydrate	Not Specified	Multiple animal	Not carcinogenic

		species	
Silica gel, pptd., cryst.-free	Not Specified	Mouse	Some positive data exist, but the data are not sufficient for classification
Aluminum Oxide	Inhalation	Rat	Not carcinogenic
HEAVY AROMATIC SOLVENT NAPHTHA (PETROLEUM)	Dermal	Mouse	Some positive data exist, but the data are not sufficient for classification
LIGHT AROMATIC SOLVENT NAPHTHA (PETROLEUM)	Inhalation	Mouse	Some positive data exist, but the data are not sufficient for classification

Reproductive Toxicity

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test Result	Exposure Duration
Cyclohexanone	Inhalation	Not toxic to female reproduction	Rat	NOAEL 4 mg/l	2 generation
Cyclohexanone	Inhalation	Some positive male reproductive data exist, but the data are not sufficient for classification	Rat	NOAEL 2 mg/l	2 generation
Cyclohexanone	Ingestion	Some positive developmental data exist, but the data are not sufficient for classification	Mouse	LOAEL 1,100 mg/kg/day	during organogenesis
Cyclohexanone	Inhalation	Some positive developmental data exist, but the data are not sufficient for classification	Rat	NOAEL 2 mg/l	2 generation
Alumina Trihydrate	Ingestion	Not toxic to development	Rat	NOAEL 768 mg/kg/day	during organogenesis
Silica gel, pptd., cryst.-free	Ingestion	Not toxic to female reproduction	Rat	NOAEL 509 mg/kg/day	1 generation
Silica gel, pptd., cryst.-free	Ingestion	Not toxic to male reproduction	Rat	NOAEL 497 mg/kg/day	1 generation
Silica gel, pptd., cryst.-free	Ingestion	Not toxic to development	Rat	NOAEL 1,350 mg/kg/day	during organogenesis
Ca 2-Ethylhexanoate	Ingestion	Toxic to female reproduction	Rat	NOAEL 300 mg/kg/day	1 generation
Ca 2-Ethylhexanoate	Ingestion	Toxic to male reproduction	Rat	NOAEL 300 mg/kg/day	1 generation
Ca 2-Ethylhexanoate	Ingestion	Toxic to development	Rat	NOAEL 100 mg/kg/day	1 generation
LIGHT AROMATIC SOLVENT NAPHTHA (PETROLEUM)	Inhalation	Not toxic to female reproduction	Rat	NOAEL 1,500 ppm	2 generation
LIGHT AROMATIC SOLVENT NAPHTHA (PETROLEUM)	Inhalation	Not toxic to male reproduction	Rat	NOAEL 1,500 ppm	2 generation
LIGHT AROMATIC SOLVENT NAPHTHA (PETROLEUM)	Inhalation	Some positive developmental data exist, but the data are not sufficient for classification	Rat	NOAEL 500 ppm	2 generation

Target Organ(s)

Specific Target Organ Toxicity - single exposure

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
Cyclohexanone	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Guinea pig	LOAEL 16.1 mg/l	6 hours
Cyclohexanone	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	
Cyclohexanone	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Professional judgement	NOAEL Not available	
2-BUTOXYETHYL ACETATE	Dermal	kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Rabbit	NOAEL Not available	24 hours
2-BUTOXYETHYL	Dermal	blood	Some positive data exist, but the	Rabbit	LOAEL	24 hours

ACETATE			data are not sufficient for classification		3,191 mg/kg	
2-BUTOXYETHYL ACETATE	Dermal	heart | endocrine system | hematoppoitic system | liver | nervous system	All data are negative	Rabbit	NOAEL 10,000 mg/kg	24 hours
2-BUTOXYETHYL ACETATE	Inhalation	central nervous system depression	Some positive data exist, but the data are not sufficient for classification	similar compoun ds	NOAEL Not available	
2-BUTOXYETHYL ACETATE	Inhalation	blood	Some positive data exist, but the data are not sufficient for classification	Multiple animal species	NOAEL 2.6 mg/l	4 hours
2-BUTOXYETHYL ACETATE	Inhalation	heart | endocrine system | hematoppoitic system | liver | nervous system | kidney and/or bladder | respiratory system	All data are negative	Multiple animal species	NOAEL 2.6 mg/l	4 hours
2-BUTOXYETHYL ACETATE	Ingestion	blood	Some positive data exist, but the data are not sufficient for classification	Rat	LOAEL 2,400 mg/kg	not applicable
2-BUTOXYETHYL ACETATE	Ingestion	hematoppoitic system	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 2,400 mg/kg	not applicable
2-BUTOXYETHYL ACETATE	Ingestion	kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Rat	LOAEL 2,400 mg/kg	not applicable
2-BUTOXYETHYL ACETATE	Ingestion	heart | liver | nervous system	All data are negative	Rat	NOAEL 3,000 mg/kg	not applicable
HEAVY AROMATIC SOLVENT NAPHTHA (PETROLEUM)	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human and animal	NOAEL Not available	
HEAVY AROMATIC SOLVENT NAPHTHA (PETROLEUM)	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Professio nal judgeme nt	NOAEL Not available	
HEAVY AROMATIC SOLVENT NAPHTHA (PETROLEUM)	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Professio nal judgeme nt	NOAEL Not available	
Ca 2-Ethylhexanoate	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	similar health hazards	NOAEL not available	
LIGHT AROMATIC SOLVENT NAPHTHA (PETROLEUM)	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Professio nal judgeme nt	NOAEL Not available	
LIGHT AROMATIC SOLVENT NAPHTHA (PETROLEUM)	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Professio nal judgeme nt	NOAEL Not available	
LIGHT AROMATIC SOLVENT NAPHTHA (PETROLEUM)	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Professio nal judgeme nt	NOAEL Not available	

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
Titanium Dioxide	Inhalation	respiratory system	Some positive data exist, but the data are not sufficient for classification	Rat	LOAEL 0.01 mg/l	2 years
Titanium Dioxide	Inhalation	pulmonary fibrosis	All data are negative	Human	NOAEL Not available	occupational exposure
Cyclohexanone	Inhalation	liver | kidney and/or	Some positive data exist, but the	Rabbit	NOAEL 0.76	50 days

		bladder	data are not sufficient for classification		mg/l	
Cyclohexanone	Ingestion	liver	Some positive data exist, but the data are not sufficient for classification	Mouse	NOAEL 4,800 mg/kg/day	90 days
Et 3-Ethoxypropionat	Inhalation	hematopoietic system	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 6 mg/l	90 days
Et 3-Ethoxypropionat	Inhalation	nervous system	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 6 mg/l	17 days
Et 3-Ethoxypropionat	Inhalation	heart | liver | immune system | kidney and/or bladder	All data are negative	Rat	NOAEL 6 mg/l	17 days
Et 3-Ethoxypropionat	Ingestion	liver	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 1,000 mg/kg/day	17 days
Et 3-Ethoxypropionat	Ingestion	hematopoietic system	All data are negative	Rat	NOAEL 1,000 mg/kg/day	28 days
Et 3-Ethoxypropionat	Ingestion	kidney and/or bladder | respiratory system	All data are negative	Rat	NOAEL 1,000 mg/kg/day	17 days
2-BUTOXYETHYL ACETATE	Inhalation	blood	May cause damage to organs though prolonged or repeated exposure	Multiple animal species	NOAEL 0.7 mg/l	10 months
2-BUTOXYETHYL ACETATE	Inhalation	kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Multiple animal species	LOAEL 0.7 mg/l	10 months
2-BUTOXYETHYL ACETATE	Inhalation	heart | endocrine system | hematopoietic system | liver | nervous system | respiratory system	All data are negative	Multiple animal species	NOAEL 0.7 mg/l	10 months
Silica gel, pptd., cryst.-free	Inhalation	respiratory system | silicosis	All data are negative	Human	NOAEL Not available	occupational exposure
Aluminum Oxide	Inhalation	pneumoconiosis | pulmonary fibrosis	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	occupational exposure

Aspiration Hazard

Name	Value
HEAVY AROMATIC SOLVENT NAPHTHA (PETROLEUM)	Aspiration hazard
LIGHT AROMATIC SOLVENT NAPHTHA (PETROLEUM)	Aspiration hazard

Please contact the address or phone number listed on the first page of the SDS for additional toxicological information on this material and/or its components.

SECTION 12: Ecological information

The information below may not agree with the EU material classification in Section 2 and/or the ingredient classifications in Section 3 if specific ingredient classifications are mandated by a competent authority. In addition, statements and data presented in Section 12 are based on UN GHS calculation rules and classifications derived from 3M assessments.

12.1. Toxicity

No product test data available

Material	Cas #	Organism	Type	Exposure	Test Endpoint	Test Result
Et 3-	763-69-9	Water flea	Experimental	48 hours	Effect	>479.7 mg/l

Ethoxypropionat					Concentration 50%	
Et 3-Ethoxypropionat	763-69-9	Green Algae	Experimental	72 hours	No obs Effect Conc	114.86 mg/l
Et 3-Ethoxypropionat	763-69-9	Fathead Minnow	Experimental	96 hours	Lethal Concentration 50%	45.3 mg/l
2,4-DIHYDROXYBENZOPHENONE	131-56-6	Green algae	Estimated	72 hours	Effect Concentration 50%	0.67 mg/l
2,4-DIHYDROXYBENZOPHENONE	131-56-6	Green algae	Analogous Compound	72 hours	No obs Effect Conc	0.18 mg/l
2,4-DIHYDROXYBENZOPHENONE	131-56-6	Water flea	Estimated	24 hours	Effect Concentration 50%	0.28 mg/l
2,4-DIHYDROXYBENZOPHENONE	131-56-6	Ricefish	Estimated	96 hours	Lethal Concentration 50%	3.8 mg/l
LIGHT AROMATIC SOLVENT NAPHTHA (PETROLEUM)	64742-95-6		Data not available or insufficient for classification			
HEAVY AROMATIC SOLVENT NAPHTHA (PETROLEUM)	64742-94-5	Green algae	Experimental	96 hours	Inhibitory Concentration 50%	4.2 mg/l
HEAVY AROMATIC SOLVENT NAPHTHA (PETROLEUM)	64742-94-5	Rainbow Trout	Experimental	96 hours	Lethal Concentration 50%	2.34 mg/l
HEAVY AROMATIC SOLVENT NAPHTHA (PETROLEUM)	64742-94-5	Water flea	Experimental	48 hours	Effect Concentration 50%	0.95 mg/l
HEAVY AROMATIC SOLVENT NAPHTHA (PETROLEUM)	64742-94-5	Green Algae	Experimental	96 hours	Inhibitory Concentration 50%	4.2 mg/l
Diundecyl	3648-20-2	Green Algae	Experimental	96 hours	Effect	>2.1 mg/l

Phthalate					Concentration 50%	
Diundecyl Phthalate	3648-20-2	Sheepshead Minnow	Experimental	96 hours	Lethal Concentration 50%	>0.22 mg/l
Diundecyl Phthalate	3648-20-2	Water flea	Experimental	48 hours	Effect Concentration 50%	12 mg/l
Diundecyl Phthalate	3648-20-2	Water flea	Experimental	21 days	No obs Effect Conc	0.35 mg/l
Diundecyl Phthalate	3648-20-2	Fathead Minnow	Experimental	96 hours	Lethal Concentration 50%	>100 mg/l
Diundecyl Phthalate	3648-20-2	Water flea	Experimental	21 days	No obs Effect Conc	0.35 mg/l
Triphenyl Phosphite	101-02-0	Green Algae	Experimental	72 hours	No obs Effect Conc	16 mg/l
Triphenyl Phosphite	101-02-0	Green Algae	Experimental	72 hours	Effect Concentration 50%	>16 mg/l
Triphenyl Phosphite	101-02-0	Ricefish	Experimental	96 hours	Lethal Concentration 50%	>4.3 mg/l
Triphenyl Phosphite	101-02-0	Water flea	Estimated	48 hours	Effect Concentration 50%	0.45 mg/l
VINYL ACETATE-VINYL ALCOHOL-VINYL CHLORIDE POLYMER	25086-48-0		Data not available or insufficient for classification			
ETHYL ACRYLATE-METHYL METHACRYLATE POLYMER	9010-88-2		Data not available or insufficient for classification			
Silica gel, pptd., cryst.-free	112926-00-8	Green algae	Analogous Compound	72 hours	Effect Concentration 50%	440 mg/l
Silica gel, pptd., cryst.-free	112926-00-8	Water flea	Analogous Compound	48 hours	Effect Concentration 50%	7,600 mg/l
Silica gel, pptd., cryst.-free	112926-00-8	Zebra Fish	Analogous Compound	96 hours	Lethal Concentration 50%	5,000 mg/l
Silica gel, pptd., cryst.-free	112926-00-8	Green algae	Analogous Compound	72 hours	No obs Effect Conc	60 mg/l
Silica gel, pptd., cryst.-free	112926-00-8	Zebra Fish	Estimated	96 hours	Lethal Concentration 50%	5,000 mg/l
Silica gel,	112926-00-8	Water flea	Estimated	48 hours	Effect	7,600 mg/l

pptd., cryst.-free					Concentration 50%	
Silica gel, pptd., cryst.-free	112926-00-8	Green algae	Estimated	72 hours	Effect Concentration 50%	440 mg/l
Silica gel, pptd., cryst.-free	112926-00-8	Green algae	Estimated	72 hours	No obs Effect Conc	60 mg/l
Titanium Dioxide	13463-67-7	Sheepshead Minnow	Experimental	96 hours	Lethal Concentration 50%	>240 mg/l
Titanium Dioxide	13463-67-7	Water flea	Experimental	48 hours	Effect Concentration 50%	>100 mg/l
Titanium Dioxide	13463-67-7	Crustecea other	Experimental	96 hours	Effect Concentration 50%	>300 mg/l
Titanium Dioxide	13463-67-7	Water flea	Experimental	30 days	No obs Effect Conc	3 mg/l
Titanium Dioxide	13463-67-7	Fish	Experimental	30 days	No obs Effect Conc	>=1,000 mg/l
Ca 2-Ethylhexanoate	136-51-6		Data not available or insufficient for classification			
Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	915-687-0	Algae or other aquatic plants	Estimated	72 hours	Effect Concentration 50%	1.68 mg/l
Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	915-687-0	Water flea	Estimated	21 days	No obs Effect Conc	1 mg/l
Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-	915-687-0	Zebra Fish	Estimated	96 hours	Lethal Concentration 50%	0.57 mg/l

pentamethyl-4-piperidyl sebacate						
Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	915-687-0	Water flea	Estimated	24 hours	Effect Concentration 50%	20 mg/l
Aluminum Oxide	1344-28-1	Water flea	Experimental	48 hours	Effect Concentration 50%	>100 mg/l
Aluminum Oxide	1344-28-1	Fish	Experimental	96 hours	Lethal Concentration 50%	>100 mg/l
Aluminum Oxide	1344-28-1	Green algae	Experimental	72 hours	Effect Concentration 50%	>100 mg/l
Aluminum Oxide	1344-28-1	Green algae	Experimental	72 hours	No obs Effect Conc	>100 mg/l
Alumina Trihydrate	21645-51-2	Water flea	Laboratory	48 hours	Effect Concentration 50%	>100 mg/l
Alumina Trihydrate	21645-51-2	Green algae	Laboratory	72 hours	Effect Concentration 50%	>100 mg/l
Alumina Trihydrate	21645-51-2	Fish	Laboratory	96 hours	Lethal Concentration 50%	>100 mg/l
Alumina Trihydrate	21645-51-2	Green Algae	Laboratory	72 hours	Effect Concentration 50%	>100 mg/l
Cyclohexanone	108-94-1	Fathead Minnow	Experimental	96 hours	Lethal Concentration 50%	527 mg/l
Cyclohexanone	108-94-1	Algae	Experimental	72 hours	Effect Concentration 50%	32.9 mg/l
Cyclohexanone	108-94-1	Water flea	Experimental	24 hours	Effect Concentration 50%	800 mg/l
2-BUTOXYETHYL ACETATE	112-07-2	Water flea	Experimental	48 hours	Effect Concentration 50%	37 mg/l
2-BUTOXYETHYL ACETATE	112-07-2	Green algae	Experimental	72 hours	Effect Concentration 50%	>500 mg/l
2-BUTOXYETHYL ACETATE	112-07-2	Rainbow Trout	Experimental	96 hours	Lethal Concentration 50%	20 mg/l

12.2. Persistence and degradability

Material	CAS No.	Test Type	Duration	Study Type	Test Result	Protocol
HEAVY AROMATIC SOLVENT NAPHTHA (PETROLEUM)	64742-94-5	Estimated Photolysis		Photolytic half-life (in air)	2.1 days (t 1/2)	Other methods
Et 3-Ethoxypropionat	763-69-9	Experimental Photolysis		Photolytic half-life (in air)	1.2 days (t 1/2)	Other methods
LIGHT AROMATIC SOLVENT NAPHTHA (PETROLEUM)	64742-95-6	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Titanium Dioxide	13463-67-7	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
ETHYL ACRYLATE-METHYL METHACRYLATE POLYMER	9010-88-2	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Silica gel, pptd., cryst.-free	112926-00-8	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
VINYL ACETATE-VINYL ALCOHOL-VINYL CHLORIDE POLYMER	25086-48-0	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Ca 2-Ethylhexanoate	136-51-6	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Diundecyl Phthalate	3648-20-2	Experimental Biodegradation	28 days	Carbon dioxide evolution	76 % weight	Other methods
HEAVY AROMATIC SOLVENT NAPHTHA (PETROLEUM)	64742-94-5	Experimental Biodegradation	28 days	Biological Oxygen Demand	39 % weight	OECD 301D - Closed Bottle Test
2,4-DIHYDROXY BENZOPHEN	131-56-6	Experimental Biodegradation	28 days	Biological Oxygen Demand	0 % weight	OECD 301C - MITI (I)

ONE						
2-BUTOXYETHYL ACETATE	112-07-2	Experimental Biodegradation	28 days	Biological Oxygen Demand	88 % weight	OECD 301F - Manometric Respiro
Et 3-Ethoxypropionat	763-69-9	Experimental Biodegradation	18 days	% CO2 Produced	100 % weight	OECD 301B - Mod. Sturm or CO2
Cyclohexanone	108-94-1	Experimental Biodegradation	14 days	Biological Oxygen Demand	87 % weight	OECD 301C - MITI (I)
Aluminum Oxide	1344-28-1	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Alumina Trihydrate	21645-51-2	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Triphenyl Phosphite	101-02-0	Experimental Hydrolysis		Hydrolytic half-life	0.5 hours (t 1/2)	Other methods
Triphenyl Phosphite	101-02-0	Estimated Photolysis		Photolytic half-life (in air)	2.97 days (t 1/2)	Other methods
Triphenyl Phosphite	101-02-0	Experimental Biodegradation	28 days	Biological Oxygen Demand	0.14 % weight	OECD 301D - Closed Bottle Test
Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	915-687-0	Estimated Biodegradation	28 days	Biological Oxygen Demand	38 % weight	OECD 301F - Manometric Respiro

12.3. Bioaccumulative potential

Material	**CAS No.**	**Test Type**	**Duration**	**Study Type**	**Test Result**	**Protocol**
Ca 2-Ethylhexanoate	136-51-6	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Alumina Trihydrate	21645-51-2	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
VINYL ACETATE-VINYL ALCOHOL-VINYL CHLORIDE POLYMER	25086-48-0	Data not available or insufficient for classification	N/A	N/A	N/A	N/A

Silica gel, pptd., cryst.-free	112926-00-8	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
ETHYL ACRYLATE-METHYL METHACRYLATE POLYMER	9010-88-2	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
LIGHT AROMATIC SOLVENT NAPHTHA (PETROLEUM)	64742-95-6	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
2,4-DIHYDROXY BENZOPHENONE	131-56-6	Estimated BCF - Other	70 days	Bioaccumulation Factor	160	Other methods
Diundecyl Phthalate	3648-20-2	Estimated BCF - Other		Bioaccumulation Factor	207	Other methods
Titanium Dioxide	13463-67-7	Experimental BCF - Other	42 days	Bioaccumulation Factor	9.6	Other methods
HEAVY AROMATIC SOLVENT NAPHTHA (PETROLEUM)	64742-94-5	Experimental Bioaccumulation		Log of Octanol/H2O part. coeff	< 6.1	Other methods
Et 3-Ethoxypropionat	763-69-9	Experimental Bioconcentration		Log of Octanol/H2O part. coeff	1.35	Other methods
2-BUTOXYETHYL ACETATE	112-07-2	Experimental Bioconcentration		Log of Octanol/H2O part. coeff	1.51	Other methods
Cyclohexanone	108-94-1	Experimental Bioconcentration		Log of Octanol/H2O part. coeff	0.81	Other methods
Aluminum Oxide	1344-28-1	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Diundecyl Phthalate	3648-20-2	Estimated Bioconcentration		Bioaccumulation Factor	7.4	Est: Bioconcentration factor
HEAVY AROMATIC SOLVENT NAPHTHA (PETROLEUM)	64742-94-5	Experimental Bioconcentration		Log of Octanol/H2O part. coeff	6.1	Other methods
Titanium Dioxide	13463-67-7	Experimental BCF-Carp	42 days	Bioaccumulation Factor	9.6	Other methods
Triphenyl	101-02-0	Estimated		Log of	6.6	Other methods

Phosphite		Bioaccumulation		Octanol/H2O part. coeff		
Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	915-687-0	Estimated Bioconcentration		Log of Octanol/H2O part. coeff	2.77	Other methods

12.4. Mobility in soil
Please contact manufacturer for more details

12.5. Results of the PBT and vPvB assessment

No information available at this time, contact manufacturer for more details

12.6. Other adverse effects
No information available

SECTION 13: Disposal considerations

13.1 Waste treatment methods
Dispose of contents/ container in accordance with the local/regional/national/international regulations.

Incinerate in a permitted waste incineration facility. Combustion products will include halogen acid (HCl/HF/HBr). Facility must be capable of handling halogenated materials. As a disposal alternative, utilize an acceptable permitted waste disposal facility. Empty drums/barrels/containers used for transporting and handling hazardous chemicals (chemical substances/mixtures/preparations classified as Hazardous as per applicable regulations) shall be considered, stored, treated & disposed of as hazardous wastes unless otherwise defined by applicable waste regulations. Consult with the respective regulating authorities to determine the available treatment and disposal facilities.

The coding of a waste stream is based on the application of the product by the consumer. Since this is out of the control of 3M, no waste code(s) for products after use will be provided. Please refer to the European Waste Code (EWC - 2000/532/CE and amendments) to assign the correct waste code to your waste stream. Ensure national and/or regional regulations are complied with and always use a licensed waste contractor

EU waste code (product as sold)
200127* Paint, inks, adhesives and resins containing dangerous substances

SECTION 14: Transportation information

ADR: UN1210; Printing Ink; 3; III; (E); F1.
IATA: UN1210; Printing Ink; 3; III.
IMDG: UN1210; Printing Ink; 3; III; EMS: FE, SD.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Carcinogenicity

Ingredient	C.A.S. No.	Classification	Regulation
Cyclohexanone	108-94-1	Gr. 3: Not classifiable	International Agency for Research on Cancer
Titanium Dioxide	13463-67-7	Grp. 2B: Possible human carc.	International Agency for Research on Cancer

Global inventory status

Contact 3M for more information. The components of this material are in compliance with the China "Measures on Environmental Management of New Chemical Substance". Certain restrictions may apply. Contact the selling division for additional information. The components of this material are in compliance with the provisions of the Korean Toxic Chemical Control Law. Certain restrictions may apply. Contact the selling division for additional information. The components of this material are in compliance with the provisions of Australia National Industrial Chemical Notification and Assessment Scheme (NICNAS). Certain restrictions may apply. Contact the selling division for additional information. The components of this product are in compliance with the new substance notification requirements of CEPA. The components of this product are in compliance with the chemical notification requirements of TSCA.

SECTION 16: Other information

List of relevant H statements

H226	Flammable liquid and vapor.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H336	May cause drowsiness or dizziness.
H361df	Suspected of damaging fertility. Suspected of damaging the unborn child.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

Revision information:

Section 02: CLP Ingredient table information was modified.
Section 03: Composition/ Information of ingredients table information was modified.
Section 08: glove data value information was deleted.
Section 08: Occupational exposure limit table information was modified.
Section 08: Skin protection - recommended gloves information information was added.
Section 09: Viscosity information information was modified.
Section 11: Acute Toxicity table information was modified.
Section 11: Carcinogenicity Table information was modified.
Section 11: Germ Cell Mutagenicity Table information was modified.
Section 11: Reproductive Toxicity Table information was modified.
Section 11: Serious Eye Damage/Irritation Table information was modified.
Section 11: Skin Corrosion/Irritation Table information was modified.
Section 11: Skin Sensitization Table information was modified.
Section 11: Target Organs - Repeated Table information was modified.
Section 12: Component ecotoxicity information information was modified.
Section 12: Persistence and Degradability information information was modified.

Section 12:Bioccumulative potential information information was modified.
Section 15: 15.2. Chemical Safety Assessment information was deleted.
Section 15: Carcinogenicity information information was modified.
Section 15: Chemical Safety Assessment information was deleted.
Section 16: Two-column table displaying the unique list of H Codes and statements (std phrses) for all components of the given material. information was modified.

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