Safety Data Sheet
MAPESHIELD CI 110
Safety Data Sheet dated: 07/29/2021 - version 2
Date of first edition: 07/14/2021

1. IDENTIFICATION

Product identifier

Mixture identification:

Trade name: MAPESHIELD CI 110
Trade code: 9020984

Recommended use of the chemical and restrictions on use

Recommended use: Coating
Restrictions on use: Not available

Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party

Company: MAPEI CORP. (USA and Puerto Rico)
1144 East Newport Center Drive - 33442 - Deerfield Beach - FL - USA
Phone: 954-246-8888
Responsible: RDProductSafety@mapei.com

Emergency 24 hour numbers:

Emergency Number (USA/Canada) CHEMTREC 1(800) 424-9300 / 1(703) 527-3887
Emergency Transport CANUTEC (Canada) 1-613-996-6666

2. HAZARD(S) IDENTIFICATION

Classification of the chemical

Flam. Liq. 4	Combustible liquid.
Skin Corr. 1A	Causes severe skin burns and eye damage.
Eye Dam. 1	Causes serious eye damage.
Repr. 2	Suspected of damaging fertility. Suspected of damaging the unborn child.

Label elements

Hazard pictograms and Signal Word

Danger

Hazard statements

H227	Combustible liquid.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H361fd	Suspected of damaging fertility. Suspected of damaging the unborn child.

Precautionary statements

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P210	Keep away from heat/sparks/open flames/hot surfaces. — No smoking.
P260	Do not breathe mist/vapours/spray.
P264	Wash skin thoroughly after handling.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301+P330+P331	IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313	IF exposed or concerned: Get medical advice/attention.

P310	Immediately call a doctor.
P321	Specific treatment (see supplementary instructions on this label).
P363	Wash contaminated clothing before reuse.
P370+P378	In case of fire, use a dry powder fire extinguisher to extinguish.
P403+P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.
P501	Dispose of contents/container in accordance with applicable regulations.

Ingredient(s) with unknown acute toxicity:

None

Hazards not otherwise classified identified during the classification process:

None

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substances

Not available

Mixtures

Hazardous components within the meaning of 29 CFR 1910.1200 and related classification:

List of components

Concentration (% w/w)	Name	Ident. Numb.	Classification	Registration Number
75-100 %	triethoxycaprylylsilane; n-Octyltriethoxysilane	CAS:2943-75-1	Skin Irrit. 2, H315	
10-20 %		CAS:15901-40-3	Acute Tox. 4, H302; Acute Tox. 4, H312; Skin Corr. 1A, H314	
0.49-1 %	ethyl alcohol; ethanol	CAS:64-17-5	Flam. Liq. 2, H225	
0.1-0.25 %		CAS:108-91-8	Flam. Liq. 3, H226; Acute Tox. 4, H302; Acute Tox. 4, H312; Repr. 2, H361; Skin Corr. 1B, H314	
0.1-0.25 %	toluene; 1-Methylbenzene	CAS:108-88-3	Flam. Liq. 2, H225; Skin Irrit. 2, H315; Repr. 2, H361; STOT SE 3, H336; STOT RE 2, H373; Asp. Tox. 1, H304; Aquatic Acute 2, H401; Aquatic Chronic 3, H412	

4. FIRST AID MEASURES

Description of first aid measures

In case of skin contact:

Immediately take off all contaminated clothing.

OBTAIN IMMEDIATE MEDICAL ATTENTION.

Remove contaminated clothing immediately and dispose of safely.

After contact with skin, wash immediately with soap and plenty of water.

In case of eyes contact:

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an opthalmologist immediately.

Protect uninjured eye.

In case of Ingestion:

Do not induce vomiting, get medical attention showing the SDS and the hazard label.

In case of Inhalation:

Remove casualty to fresh air and keep warm and at rest.

Most important symptoms/effects, acute and delayed

Eye irritation

Eye damages

Skin Irritation

Erythema

Indication of any immediate medical attention and special treatment needed

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

Treatment:

(see paragraph 4.1)

5. FIRE-FIGHTING MEASURES

Extinguishing media

Suitable extinguishing media:

Unsuitable extinguishing media:

None in particular.

Specific hazards arising from the chemical

Do not inhale explosion and combustion gases.

Burning produces heavy smoke.

Hazardous combustion products: Not available

Explosive properties: Not Relevant

Oxidizing properties: Not Relevant

Special protective equipment and precautions for fire-fighters

Use suitable breathing apparatus.

Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

Move undamaged containers from immediate hazard area if it can be done safely.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Wear personal protection equipment.

Remove persons to safety.

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.

Limit leakages with earth or sand.

Methods and material for containment and cleaning up

Suitable material for taking up: absorbing material, organic, sand

Retain contaminated washing water and dispose it.

7. HANDLING AND STORAGE

Precautions for safe handling

Avoid contact with skin and eyes, inhalation of vapours and mists.

Exercise the greatest care when handling or opening the container.

Don't use empty container before they have been cleaned.

Before making transfer operations, assure that there aren't any incompatible material residuals in the containers.

Contaminated clothing should be changed before entering eating areas.

Do not eat or drink while working.

See also section 8 for recommended protective equipment.

Conditions for safe storage, including any incompatibilities

Store cool and dry.

Storage temperature: Not available

Always keep in a well ventilated place.

Store at below 20 °C. Keep away from unguarded flame and heat sources. Avoid direct exposure to sunlight.

Keep away from unguarded flame, sparks, and heat sources. Avoid direct exposure to sunlight.

Keep away from food, drink and feed.

Incompatible materials:

None in particular.

Instructions as regards storage premises:

Cool and adequately ventilated.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

List of components with OEL value

Component	OEL Type	Country	Ceiling	Long Term mg/m3	Long Term ppm	Short Term mg/m3	Short Term ppm	Behaviour	Note
ethyl alcohol; ethanol	OSHA			1900	1000				
	ACGIH						1000		A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans;upper respiratory tract irritation;

	MAK	GERMANY		380	200				
	ACGIH						1000		A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans;upper respiratory tract irritation
	MAK	AUSTRIA		1900	1000	3800	2000		
	MAK	SWITZERLAND		960	500				
	ACGIH				10				A4 - Not Classifiable as a Human Carcinogen;eye and upper respiratory tract irritation;
	MAK	GERMANY		8.2	2				
	ACGIH				10				A4 - Not Classifiable as a Human Carcinogen;eye and upper respiratory tract irritation
	MAK	AUSTRIA		40	10	40	10		
	MAK	SWITZERLAND		8.2	2				
	MAK	AUSTRIA	C			40	10		
toluene; 1-Methylbenzene	OSHA				200				
	ACGIH				20				A4 - Not Classifiable as a Human Carcinogen;female reproductive;pregnancy loss;visual impairment;
	OSHA		C				300		
	EU			192	50	384	100	Indicative	Possibility of significant uptake through the skin;
	MAK	GERMANY		190	50				
	ACGIH				20				A4 - Not Classifiable as a Human Carcinogen;female reproductive damage;pregnancy loss;visual impairment
	MAK	AUSTRIA		190	50	380	100		
	MAK	SWITZERLAND		190	50				
	EU			192	50	384	100	Indicative	Possibility of significant uptake through the skin

Biological Exposure Index

Component	CAS-No.	Value	UoM	Medium	Biological Indicator	Sampling Period
toluene; 1-Methylbenzene	108-88-3	0,02	mg/L	Blood	Toluene	Before last turn of the working week
		0,03	mg/L	Urine	Toluene	End of turn
		0,3	MGGCREAT	Urine	O-Cresol	End of turn

Appropriate engineering controls: Not available

Individual protection measures

Eye protection:

Use close fitting safety goggles, don't use eye lens.

Protection for skin:

Use clothing that provides comprehensive protection to the skin, e.g. cotton, rubber, PVC or viton.

Protection for hands:

Suitable materials for safety gloves; 29 CFR 1910.138 - ANSI/ISEA 105:

Polychloroprene - CR: thickness >=0,5mm; breakthrough time >=480min.

Nitrile rubber - NBR: thickness >=0,35mm; breakthrough time >=480min.

Butyl rubber - IIR: thickness >=0,5mm; breakthrough time >=480min.

Fluorinated rubber - FKM: thickness >=0,4mm; breakthrough time >=480min.

Use impervious gloves that provides comprehensive protection, e.g. P.V.C., neoprene or rubber.

Respiratory protection:

Respiratory protection must be used where exposure levels exceed workplace exposure limits. Refer to 29 CFR 1910.134 - CSA

Z94.4 for information on selection and use of appropriate respiratory protection equipment.
Use adequate protective respiratory equipment.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state: Liquid
Appearance and colour: Liquid light yellow
Odour: Characteristic
Odour threshold: Not Relevant
pH: 11.06
Melting point / freezing point: Not Relevant
Initial boiling point and boiling range: Not Relevant
Flash point: 76 °C (169 °F)
Evaporation rate: Not Relevant
Upper/lower flammability or explosive limits: Not Relevant
Vapour density: Not Relevant
Vapour pressure: No data available
Relative density: 0.89 g/cm3
Solubility in water: insoluble
Solubility in oil: Not Relevant
Partition coefficient (n-octanol/water): Not Relevant
Auto-ignition temperature: Not Relevant
Decomposition temperature: Not Relevant
Viscosity: 0.00 PA-s
Explosive properties: Not Relevant
Oxidizing properties: Not Relevant
Solid/gas flammability: Not Relevant

Other information

Substance Groups relevant properties Not Relevant
Miscibility: Not Relevant
Fat Solubility: Not Relevant
Conductivity: Not Relevant

10. STABILITY AND REACTIVITY

Reactivity

Stable

Chemical stability

Data not available.

Possibility of hazardous reactions

None.

Conditions to avoid

No data available

Incompatible materials

Data not available.

Hazardous decomposition products

Data not available.

11. TOXICOLOGICAL INFORMATION

Information on toxicological effects

Toxicological information of the product:

a) acute toxicity	Not classified
	Based on available data, the classification criteria are not met
b) skin corrosion/irritation	The product is classified: Skin Corr. 1A(H314)
c) serious eye damage/irritation	The product is classified: Eye Dam. 1(H318)
d) respiratory or skin sensitisation	Not classified
	Based on available data, the classification criteria are not met
e) germ cell mutagenicity	Not classified
	Based on available data, the classification criteria are not met
f) carcinogenicity	Not classified

	Based on available data, the classification criteria are not met
g) reproductive toxicity	The product is classified: Repr. 2(H361)
h) STOT-single exposure	Not classified
	Based on available data, the classification criteria are not met
i) STOT-repeated exposure	Not classified
	Based on available data, the classification criteria are not met
j) aspiration hazard	Not classified
	Based on available data, the classification criteria are not met

Toxicological information of the main substances found in the product:

triethoxycaprylylsilane; n-Octyltriethoxysilane	a) acute toxicity	LD50 Oral Rat = 10060 µL/kg
ethyl alcohol; ethanol	a) acute toxicity	LC50 Inhalation Rat = 1247 mg/l 4h
		LC50 Inhalation Rat = 124.7 mg/l 4h
		LD50 Oral Rat = 7060 mg/kg
	a) acute toxicity	LD50 Skin Rabbit = 277 mg/kg
		LC50 Inhalation Rat = 1000 ppm 16h
		LD50 Oral Rat = 11 mg/kg
toluene; 1-Methylbenzene	a) acute toxicity	LD50 Skin Rabbit = 8390 mg/kg
		LC50 Inhalation Rat = 125 mg/l 4h
		LD50 Oral Rat = 636 mg/kg
		LD50 Skin Rat = 12124.00000 ml/kg
		LC50 Inhalation Rat > 26700.00000 ppm 1h
		LD50 Skin Rabbit = 12000 mg/kg
		LC50 Inhalation Rat = 12.5 mg/l 4h
		LD50 Oral Rat = 2600 mg/kg

Substance(s) listed on the IARC Monographs:

ethyl alcohol; ethanol	Group 1
	Group 3
toluene; 1-Methylbenzene	Group 3

Substance(s) listed as OSHA Carcinogen(s):

ethyl alcohol; ethanol

Substance(s) listed as NIOSH Carcinogen(s):

None

Substance(s) listed on the NTP report on Carcinogens:

None

12. ECOLOGICAL INFORMATION

Toxicity

Adopt good working practices, so that the product is not released into the environment.

Eco-Toxicological Information:

List of Eco-Toxicological properties of the product

Not classified for environmental hazards

Based on available data, the classification criteria are not met

List of components with eco-toxicological properties

Component	Ident. Numb.	Ecotox Infos
triethoxycaprylylsilane; n-Octyltriethoxysilane	CAS: 2943-75-1	a) Aquatic acute toxicity : LC50 Fish Oncorhynchus mykiss > 0.055 mg/L 96h ECHA

ethyl alcohol; ethanol	CAS: 64-17-5	a) Aquatic acute toxicity : LC50 Fish Oncorhynchus mykiss 12 mL/L 96h EPA
		a) Aquatic acute toxicity : LC50 Fish Pimephales promelas > 100 mg/L 96h EPA
		a) Aquatic acute toxicity : LC50 Daphnia Daphnia magna 9268 mg/L 48h IUCLID
		a) Aquatic acute toxicity : EC50 Daphnia Daphnia magna = 2 mg/L 48h EPA
		a) Aquatic acute toxicity : LC50 Fish Pimephales promelas 13400 mg/L 96h EPA
		d) Terrestrial toxicity : LC50 Worm Eisenia foetida 0.1 mg/cm2 48h IUCLID
	CAS: 108-91-8	a) Aquatic acute toxicity : LC50 Fish Oncorhynchus mykiss 44 mg/L 96h IUCLID
		a) Aquatic acute toxicity : LC50 Fish Brachydanio rerio = 470 mg/L 96h IUCLID
		a) Aquatic acute toxicity : EC50 Algae Pseudokirchneriella subcapitata = 20 mg/L 96h EPA
		a) Aquatic acute toxicity : EC50 Algae Pseudokirchneriella subcapitata = 20 mg/L 96h IUCLID
toluene; 1-Methylbenzene	CAS: 108-88-3	a) Aquatic acute toxicity : LC50 Fish Lepomis macrochirus 11 mg/L 96h EPA
		a) Aquatic acute toxicity : LC50 Fish Oryzias latipes = 54 mg/L 96h EPA
		a) Aquatic acute toxicity : EC50 Algae Pseudokirchneriella subcapitata > 433 mg/L 96h IUCLID
		a) Aquatic acute toxicity : LC50 Fish Pimephales promelas 15.22 mg/L 96h EPA
		a) Aquatic acute toxicity : LC50 Fish Pimephales promelas = 12.6 mg/L 96h EPA
		a) Aquatic acute toxicity : LC50 Fish Oncorhynchus mykiss 5.89 mg/L 96h EPA
		a) Aquatic acute toxicity : LC50 Fish Oncorhynchus mykiss 14.1 mg/L 96h EPA
		a) Aquatic acute toxicity : LC50 Fish Oncorhynchus mykiss = 5.8 mg/L 96h EPA
		a) Aquatic acute toxicity : LC50 Fish Poecilia reticulata = 28.2 mg/L 96h EPA
		a) Aquatic acute toxicity : LC50 Fish Poecilia reticulata 50.87 mg/L 96h EPA
		a) Aquatic acute toxicity : EC50 Daphnia Daphnia magna 5.46 mg/L 48h EPA
		a) Aquatic acute toxicity : EC50 Daphnia Daphnia magna = 11.5 mg/L 48h IUCLID
		a) Aquatic acute toxicity : EC50 Algae Pseudokirchneriella subcapitata = 12.5 mg/L 72h EPA

Persistence and degradability

Not available

Bioaccumulative potential

Not available

Mobility in soil

Not available

Other adverse effects

Not available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

The generation of waste should be avoided or minimized wherever possible. Recover if possible.

Methods of disposal:

Disposal of this product, solutions, packaging and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.

Dispose of surplus and nonrecyclable products via a licensed waste disposal contractor.

Do not dispose of waste into sewers.

Disposal considerations:

Do not allow to enter drains or watercourses.

Dispose of product according to all federal, state and local applicable regulations.

If this product is mixed with other wastes, the original waste product code may no longer apply and the appropriate code should be assigned.

Dispose of containers contaminated by the product in accordance with local or national legal provisions. For further information, contact your local waste authority.

Special precautions:

This material and its container must be disposed of in a safe way. Care should be taken when handling untreated empty containers.

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Empty containers or liners may retain some product residues. Do not re-use empty containers.

14. TRANSPORT INFORMATION

Not classified as dangerous in the meaning of transport regulations.

UN number

ADR-UN number: Not available

DOT-UN Number: NA1993

IATA-Un number: Not available

IMDG-Un number: Not available

UN proper shipping name

ADR-Shipping Name: Not available

DOT-Proper Shipping Name: Combustible liquid, n.o.s. (Ethyl Alcohol, Toluene)

IATA-Technical name: Not available

IMDG-Technical name: Not available

Transport hazard class(es)

ADR-Class: Not available

DOT-Hazard Class: COMBUSTIBLE

IATA-Class: Not available

IMDG-Class: Not available

Packing group

ADR-Packing Group: Not available

DOT-Packing group: III

IATA-Packing group: Not available

IMDG-Packing group: Not available

Environmental hazards

Marine pollutant: No

Environmental Pollutant: Not available

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not available

Special precautions

Department of Transportation (DOT):

Not available DOT-Special Provision(s): 148, IB3, T1, TP1

DOT-Label(s): None

DOT-Symbol: D G

DOT-Cargo Aircraft: 220 L

DOT-Passenger Aircraft: 60 L

DOT-Bulk: 241

DOT-Non-Bulk: 203

Road and Rail (ADR-RID) :

Not available

Air (IATA) :

Not available

Sea (IMDG) :

Not available

15. REGULATORY INFORMATION

USA - Federal regulations

TSCA - Toxic Substances Control Act

TSCA inventory:

All the components are listed on the TSCA inventory

TSCA listed substances:

triethoxycaprylylsilane; n-Octyltriethoxysilane	is listed in TSCA	Section 8b
	is listed in TSCA	Section 8b
ethyl alcohol; ethanol	is listed in TSCA	Section 8b
	is listed in TSCA	Section 8b
toluene; 1-Methylbenzene	is listed in TSCA	Section 8b

SARA - Superfund Amendments and Reauthorization Act

Section 302 - Extremely Hazardous Substances:

Section 304 - Hazardous substances:

toluene; 1-Methylbenzene

Section 313 - Toxic chemical list:

toluene; 1-Methylbenzene

CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act

Substance(s) listed under CERCLA:

toluene; 1-Methylbenzene	Reportable quantity:	1000	pounds

CAA - Clean Air Act

CAA listed substances:

	is listed in CAA	Section 112(b) - HON
toluene; 1-Methylbenzene	is listed in CAA	Section 112(b) - HAP Section 112(b) - HON

CWA - Clean Water Act

CWA listed substances:

toluene; 1-Methylbenzene	is listed in CWA	Section 307 Section 311

USA - State specific regulations

California Proposition 65

Substance(s) listed under California Proposition 65:

ethyl alcohol; ethanol	Listed as carcinogen and reproductive toxicant
toluene; 1-Methylbenzene	Listed as reproductive toxicant

Massachusetts Right to know

Substance(s) listed under Massachusetts Right to know:

ethyl alcohol; ethanol

toluene; 1-Methylbenzene

Pennsylvania Right to know

Substance(s) listed under Pennsylvania Right to know:

ethyl alcohol; ethanol

toluene; 1-Methylbenzene

New Jersey Right to know

Substance(s) listed under New Jersey Right to know:

ethyl alcohol; ethanol

toluene; 1-Methylbenzene

Canada - Federal regulations

DSL - Domestic Substances List

DSL (Domestic Substances List)

All the substances are listed in the DSL.

NDSL - Non Domestic Substances List

NDSL (Non Domestic Substances List)

No substances listed

NPRI - National Pollutant Release Inventory

NPRI (National Pollutant Release Inventory) - List of substances listed.

No substances listed

16. OTHER INFORMATION

Safety Data Sheet dated: 7/29/2021 - version 2

Additional classification information

NFPA Health: 3 = Serious
NFPA Flammability: 2 = Combustible liquid
NFPA Reactivity: 0 = Minimal
NFPA Special Risk: Not available

Reasonable care has been taken in the preparation of this information, but the manufacturer makes no warranty of merchantability or any other warranty, expressed or implied, with respect to this information. The manufacturer makes no representations and assumes no liability for any direct, incidental or consequential damages resulting from its use. The information herein is presented in good faith and believed to be accurate as of the effective date given. It is the buyer's responsibility to ensure that its activities comply with Federal, State or provincial, and local laws.

This document was prepared by a competent person who has received appropriate training.

It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific use intended.

This SDS cancels and replaces any preceding release.

Code	Description
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H227	Combustible liquid.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H336	May cause drowsiness or dizziness.
H361	Suspected of damaging fertility or the unborn child.
H361fd	Suspected of damaging fertility. Suspected of damaging the unborn child.
H373	May cause damage to organs through prolonged or repeated exposure.
H401	Toxic to aquatic life.
H412	Harmful to aquatic life with long lasting effects.

Legend to abbreviations and acronyms used in the safety data sheet:

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.
RID: Regulation Concerning the International Transport of Dangerous Goods by Rail.
IMDG: International Maritime Code for Dangerous Goods.
IATA: International Air Transport Association.
IATA-DGR: Dangerous Goods Regulation by the "International Air Transport Association" (IATA).
ICAO: International Civil Aviation Organization.
ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO).
GHS: Globally Harmonized System of Classification and Labeling of Chemicals.
CLP: Classification, Labeling, Packaging.
EINECS: European Inventory of Existing Commercial Chemical Substances.
INCI: International Nomenclature of Cosmetic Ingredients.
CAS: Chemical Abstracts Service (division of the American Chemical Society).
GefStoffVO: Ordinance on Hazardous Substances, Germany.
LC50: Lethal concentration, for 50 percent of test population.
LD50: Lethal dose, for 50 percent of test population.
DNEL: Derived No Effect Level.
PNEC: Predicted No Effect Concentration.
TLV: Threshold Limiting Value.
TWATLV: Threshold Limit Value for the Time Weighted Average 8 hour day. (ACGIH Standard).
STEL: Short Term Exposure limit.
STOT: Specific Target Organ Toxicity.
WGK: German Water Hazard Class.
KSt: Explosion coefficient.

Paragraphs modified from the previous revision:

- 11. TOXICOLOGICAL INFORMATION
- 12. ECOLOGICAL INFORMATION