SAFETY DATA SHEET 2025

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

Product Name : ShieldPoly F-15 Part B Grey
Other means of Identification : None
Recommended Use : Component of a Polyurea System
Supplier's Information
Information : ShieldCrete® International
Company Name : ShieldCrete® International Sdn Bhd
Address : No. 14, Jalan Anggerik Mokara 31/60, Kota Kemuning Industry Area, 40460 Shah Alam, Selangor, Malaysia
Contact Numbers : +6(03) 5131 2101
Email : info@shieldcreteinternational.com
Website : www.shieldcreteinternational.com

SECTION 2: HAZARDS IDENTIFICATION

GHS Classification

Acute toxicity (Oral) : Category 4
Skin corrosion/irritation : Category 1B
Serious eye damage/eye irritation : Category 1
Specific target organ toxicity - repeated exposure (Oral) : Category 2 (Pancreas, Liver, Kidney)
Short-term (acute) aquatic hazard : Category 2
Chronic aquatic toxicity : Category 2

GHS Label Elements

Hazard pictograms:

Signal Word: **Danger**

Hazard Statements:
H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
H373 May cause damage to organs (Pancreas, Liver, Kidney) through prolonged or repeated exposure if swallowed.
H411 Toxic to aquatic life with long lasting effects.

Precautionary Statements:

Prevention:
P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
P264 Wash skin thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P273 Avoid release to the environment.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response:
P301 + P312 + P330 IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell. Rinse mouth.
P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353 IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.
P304 + P340 + P310 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/ physician.

P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/ physician.
P314 Get medical advice/ attention if you feel unwell.
P363 Wash contaminated clothing before reuse.
P391 Collect spillage.

Storage:
P405 Store locked up.

Disposal:
P501 Dispose of contents/container to an approved facility in accordance with local, regional, national and international regulations.

Other hazards which do not result in classification: None known.

SECTION 3: COMPOSITES / INFORMATION ON INGREDIENTS

Substance / Mixture: Mixture

Chemical Name / CAS No.	CAS-No.	Concentration (% w/w)
Diaminopolypropylene glycol	9046-10-0	>= 60 - <= 100
diethylmethylbenzenediamine	68479-98-1	>= 10 - < 30
4,4'-methylenebis[N-sec-butylaniline]	5285-60-9	< 10
Propane-1,2-diol, propoxylated	25322-69-4	< 10
titanium dioxide	13463-67-7	< 10

SECTION 4: FIRST AID MEASURES

General advice:
Move out of dangerous area.
Consult a physician.
Show this safety data sheet to the doctor in attendance.
Treat symptomatically.
Get medical attention if symptoms occur.

If inhaled:
If inhaled, remove to fresh air.
Get medical attention if symptoms occur.

In case of skin contact:
Immediate medical treatment is necessary as untreated wounds from corrosion of the skin heal slowly and with difficulty.
If on skin, rinse well with water.
If on clothes, remove clothes.

In case of eye contact:
Small amounts splashed into eyes can cause irreversible tissue damage and blindness.
In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
Continue rinsing eyes during transport to hospital.
Remove contact lenses.
Keep eye wide open while rinsing.
If eye irritation persists, consult a specialist.

If swallowed:
Keep respiratory tract clear.
Do NOT induce vomiting.
Never give anything by mouth to an unconscious person.
If symptoms persist, call a physician.
Take victim immediately to hospital.

Most important symptoms and effects, both acute and delayed: None known.

Notes to physician: Treat symptomatically.

SECTION 5: FIRE FIGHTING MEASURES

Suitable extinguishing media:
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 firefighting to enter drains or water courses.

Hazardous combustion products:
Carbon oxides
Nitrogen oxides (NOx)
Metal oxides

Specific extinguishing methods:
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 fire-fighters:
Wear self-contained breathing apparatus for firefighting if necessary.

Hazchem Code: 2X

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:
Use personal protective equipment.
Refer to protective measures listed in sections 7 and 8.

Environmental precautions:
Prevent product from entering drains.
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:
Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).
Keep in suitable, closed containers for disposal.

SECTION 7: HANDLING AND STORAGE

Advice on protection against fire and explosion:
Normal measures for preventive fire protection.

Advice on safe handling:
Do not breathe vapours/dust.
Avoid exposure - obtain special instructions before use.
Avoid contact with skin and eyes.
For personal protection see section 8.
Smoking, eating and drinking should be prohibited in the application area.
To avoid spills during handling keep bottle on a metal tray.
Dispose of rinse water in accordance with local and national regulations.

Hygiene measures:
When using do not eat or drink.
When using do not smoke.
Wash hands before breaks and at the end of workday.

Conditions for safe storage:
Keep container tightly closed in a dry and well-ventilated place.
Containers which are opened must be carefully resealed and kept upright to prevent leakage.
Observe label precautions.
Keep in properly labelled containers.

Materials to avoid:
For incompatible materials please refer to Section 10 of this SDS.

Further information on storage stability:
Stable under normal conditions.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

Components with workplace control parameters

Ingredients	CAS No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
titanium dioxide	13463-67-7	TWA	10 mg/m^3	AU OEL

Personal Protective Equipment

Respiratory protection: In the case of vapour formation use a respirator with an approved filter.
Refer to Australian/New Zealand Standard AS/NZS 1715 and AS/NZS 1716 for guidance on selection and use of respiratory devices.

Respiratory protection: Use respiratory protection unless adequate local exhaust ventilation is provided or exposure assessment demonstrates that exposures are within recommended exposure guidelines.
Refer to Australian/New Zealand Standard AS/NZS 1715 and AS/NZS 1716 for guidance on selection and use of respiratory devices.

Filter type: Particulates type

Hand protection

Remarks: The suitability for a specific workplace should be discussed with the producers of the protective gloves.
Refer to Australian/New Zealand Standard AS/NZS 2161.1: 2000 for guidance on selection and use of protective gloves.

Eye protection: Eye wash bottle with pure water
Tightly fitting safety goggles
Wear face-shield and protective suit for abnormal processing problems.
Refer to Australian/New Zealand Standard AS/NZS 1337:1992 for guidance on selection and use of protective eyewear.

Skin and body protection: Impervious clothing
Choose body protection according to the amount and concentration of the dangerous substance at the workplace.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Liquid	**Color**	Grey
Odor	No data is available on the product itself.	**Odor threshold**	No data is available on the product itself.
pH	No data is available on the product itself.	**Melting point/ Freezing point**	No data is available on the product itself.
Boiling point/ Boiling range	No data is available on the product itself.	**Flash point**	> 149 °C Method: open cup
Evaporation rate	No data is available on the product itself.	**Flammability (solid, gas, liquids)**	No data is available on the product itself.
Vapor pressure	No data is available on the product itself.	**Upper explosion limit / Upper flammability limit**	No data is available on the product itself.
Relative vapor density	No data is available on the product itself.	**Lower explosion limit / Lower flammability limit**	No data is available on the product itself.
Density	No data is available on the product itself.	**Relative density**	1

Solubility(ies): Water solubility	No data is available on the product itself.	**Partition coefficient: N-octanol/water**	No Data
Solubility(ies): In other solvents	No data is available on the product itself.	**Auto ignition temperature**	No data is available on the product itself.
Thermal decomposition	No data is available on the product itself.	**Self-Accelerating decomposition temp (SADT)**	No data is available on the product itself.
Viscosity: Viscosity, dynamic	750 - 850 mPa.s	**Explosive properties**	No data is available on the product itself.
Oxidizing properties	No data is available on the product itself.	**Particle size**	No data is available on the product itself.

SECTION 10: STABILITY AND REACTIVITY

Reactivity: No dangerous reaction known under conditions of normal use.

Chemical stability: Stable under normal conditions.

Possibility of hazardous reactions: No hazards to be specially mentioned.

Conditions to avoid: None known

Incompatible materials: None known

Hazardous decomposition products: Carbon dioxide
Carbon monoxide

SECTION 11: TOXICOLOGICAL INFORMATION

Exposure routes: No data is available on the product itself.

Acute Toxicity			
Acute oral toxicity - Product	Acute toxicity estimate: 576.31 mg/kg		Method: Calculation method
Components			
Diaminopolypropylene glycol	Acute inhalation toxicity	LC50 (Rat, male and female): > 0.74 mg/l Exposure time: 8 h Test atmosphere: vapour Method: OECD Test Guideline 403 Assessment: The substance or mixture has no acute inhalation toxicity.	
	Acute dermal toxicity	LD50 (Rabbit): 2,085.8 mg/kg Assessment: The component/mixture is low toxic after single contact with skin.	
Titanium dioxide	Acute inhalation toxicity	LC50 (Rat, male and female): 3.43 - 5.09 mg/l Exposure time: 4 h Test atmosphere: dust/mist Method: OECD Test Guideline 403 Assessment: The substance or mixture has no acute inhalation toxicity.	
	Acute dermal toxicity	LD50 Dermal (Rabbit): > 10,000 mg/kg	
	Acute toxicity (other routes of administration)	No data available	
diethylmethylbenzenediamine	Acute dermal toxicity	LD50 (Rat): > 2,000 mg/kg Method: OECD Test Guideline 402 Assessment: The substance or mixture has no acute dermal toxicity.	
4,4'-methylenebis[N-sec-butylaniline]	Acute dermal toxicity	LD50 (Rabbit): > 3,000 mg/kg Assessment: The substance or mixture has no acute dermal toxicity	

Propane-1,2-diol, propoxylated	Acute dermal toxicity	LD50 (Rabbit): 10,000 - 30,000 mg/kg

Skin Corrosion / Irritation

Components	
Diaminopolypropylene glycol	Species: Rabbit Method: OECD Test Guideline 404 Result: Corrosive after 3 minutes to 1 hour of exposure
diethylmethylbenzenediamine	Species: Rabbit Assessment: No skin irritation Method: OECD Test Guideline 404 Result: No skin irritation
4,4'-methylenebis[N-sec-butylaniline]	Species: Rabbit Result: No skin irritation
Titanium dioxide	Species: Rabbit Assessment: No skin irritation Method: OECD Test Guideline 404 Result: Normally reversible injuries

Serious Eye Damage / Eye Irritation

Components		
Diaminopolypropylene glycol	Species: Rabbit Result: Risk of serious damage to eyes. Assessment: Risk of serious damage to eyes. Remarks: Risk of serious damage to eyes.	
diethylmethylbenzenediamine	Species: Rabbit Result: Irritating to eyes. Assessment: Irritant	Species: Rabbit Result: Normally reversible injuries Assessment: Irritant Method: OECD Test Guideline 405
4,4'-methylenebis[N-sec-butylaniline]	Species: Rabbit Result: No eye irritation	
Propane-1,2-diol, propoxylated	Species: Rabbit Result: slight irritation Assessment: No eye irritation	
titanium dioxide	Species: Rabbit Result: Normally reversible injuries Assessment: No eye irritation Method: OECD Test Guideline 405	

Respiratory or Skin Sensitisation

Components		
diethylmethylbenzenediamine	Exposure routes: Skin Species: Guinea pig Result: Does not cause skin sensitisation.	
4,4'-methylenebis[N-sec-butylaniline]	Exposure routes: Skin Result: Does not cause skin sensitisation.	
Propane-1,2-diol, propoxylated	Exposure routes: Skin Species: Humans Result: Does not cause skin sensitisation.	
titanium dioxide	Test Type: Local lymph node assay (LLNA) Exposure routes: Skin Species: Mouse Assessment: Does not cause skin sensitisation. No skin irritation, No eye irritation. Does not cause respiratory sensitisation. Method: OECD Test Guideline 429 Result: Does not cause skin sensitisation.	Exposure routes: Skin Species: Guinea pig Assessment: Does not cause skin sensitisation. Method: OECD Test Guideline 406 Result: Does not cause skin sensitisation.

Chronic Toxicity

Germ cell mutagenicity

Components	Genotoxicity in vitro	Genotoxicity in Vivo
Diaminopolypropylene glycol	Test Type: gene mutation test Test system: Salmonella typhimurium Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 471 Result: negative Test Type: gene mutation test Test system: mouse lymphoma cells Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 476 Result: negative	Test Type: Micronucleus test Species: Mouse (male and female) Cell type: Bone marrow Application Route: Oral Dose: 125, 250 and 500 mg/kg Method: OECD Test Guideline 474 Result: negative
diethylmethylbenzenediamine	Metabolic activation: no Method: OECD Test Guideline 476 Result: negative	Application Route: Oral Method: OECD Test Guideline 474 Result: negative
4,4'-methylenebis[N-sec-butylaniline]	Method: OECD Test Guideline 471 Result: negative	
Propane-1,2-diol, propoxylated	Metabolic activation: yes Result: negative	
Titanium dioxide	Test Type: Ames test Concentration: 100 - 200 ug/plate Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 471 Result: negative Test Type: In vitro mammalian cell gene mutation test Concentration: 31 - 500 µg/L Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 476 Result: negative Test Type: Chromosome aberration test in vitro Concentration: 125 - 2500 µg/L Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 473 Result: negative	Test Type: Micronucleus test Species: Mouse (males) Application Route: Inhalation Exposure time: 5 consecutive days Dose: 0.8, 7.2, and 28.5 mg/m³ Method: OECD Test Guideline 474 Result: negative Test Type: Micronucleus test Species: Rat (male and female) Application Route: Oral Exposure time: once Dose: 500, 1000, and 2000 mg/kg bw Method: OECD Test Guideline 474 Result: negative Germ cell mutagenicity- Assessment: Tests on bacterial or mammalian cell cultures did not show mutagenic effects., Animal testing did not show any mutagenic effects.

Carcinogenicity

Components		
diethylmethylbenzenediamine	Species: Rat, male and female Application Route: Oral Exposure time: 24 month(s) Dose: 1.8 - 3.2 mg/kg Frequency of Treatment: 7 daily Method: OECD Test Guideline 451 Result: negative	
Titanium dioxide	Species: Rat, male and female Application Route: Oral Exposure time: 103 weeks Dose: 0, 25000, 50000 ppm Frequency of Treatment: 7 days/week NOAEL: > 50.000 ppm Carcinogenicity – Assessment: Not classifiable as a human carcinogen. Method: No information available.	ShieldCrete® has examined all of the available animal carcinogenicity and mechanistic data together with workplace epidemiology data for titanium dioxide and concludes that the weight of scientific evidence indicates that there is no causative link between titanium dioxide exposure and cancer risk in humans and that workplace exposures in compliance with applicable exposure standards will

	Remarks: Titanium Dioxide: based on the results of chronic inhalation studies (with positive results only in a single species - rat), IARC has concluded that: "There is inadequate evidence in humans for the carcinogenicity of titanium dioxide. " but that: "There is sufficient evidence in experimental animals for carcinogenicity of titanium dioxide". IARCs overall evaluation was that "titanium dioxide is possibly carcinogenic to humans (Group 2B)."	not result in lung cancer or chronic respiratory diseases in humans.

Reproductive Toxicity

Components		
Diaminopolypropylene glycol	Effects on fertility: Test Type: reproductive and developmental toxicity study Species: Rat, male and female Application Route: Dermal Dose: 3, 10, 30 mg/kg bw/day General Toxicity - Parent: No observed adverse effect level: 10 mg/kg body weight General Toxicity F1: No observed adverse effect level: 30 mg/kg body weight Method: OECD Test Guideline 421	
Titanium dioxide	Effects on foetal development: Species: Rat, male and female Application Route: Oral Dose: 100, 300, and 1000 mg/kg bw/ Duration of Single Treatment: 20 d Frequency of Treatment: 7 days/week General Toxicity Maternal: No observed adverse effect level: 1,000 mg/kg body weight Developmental Toxicity: No observed adverse effect level: 1,000 mg/kg body weight Method: OECD Test Guideline 414 Result: No adverse effects	Reproductive toxicity – Assessment: No evidence of adverse effects on sexual function and fertility, or on development, based on animal experiments.

STOT - Single Exposure

No data available

STOT - Repeated Exposure

Components	
diethylmethylbenzenediamine	Exposure routes: Ingestion Target Organs: Pancreas, Liver, Kidney Assessment: May cause damage to organs through prolonged or repeated exposure.

Repeated Dose Toxicity

Components		
Diaminopolypropylene glycol	Species: Rat, male and female NOAEL: 250 mg/kg Method: OECD Test Guideline 411	
diethylmethylbenzenediamine	Species: Rat, male and female NOAEL: 8 - 10 mg/kg Application Route: Ingestion Exposure time: 2,160 h Method: Subchronic toxicity	
Propane-1,2-diol, propoxylated	Species: Rat NOEL: 3 % Application Route: Ingestion Exposure time: 2,400 h Method: Subchronic toxicity	Species: Rat NOAEL: 1000 mg/kg/d Application Route: Skin contact Exposure time: 2,160 h Method: Subchronic toxicity

Titanium dioxide	Species: Rat, male and female NOEC: 3500 mg/m3 Application Route: Ingestion Test atmosphere: dust/mist Exposure time: 2 yr Number of exposures: 5 d Method: Chronic toxicity Repeated dose toxicity – Assessment: No skin irritation, No eye irritation No adverse effect has been observed in chronic toxicity tests.	Species: Rat, male and female NOEC: 10 - 50 mg/m3 Application Route: Inhalation Exposure time: 2 yr Number of exposures: 6 hours/day, 5 days/week Method: Chronic toxicity

Aspiration Toxicity

No data available

Experience with Human Exposure

General Information	No data available
Inhalation	No data available
Skin contact	No data available
Eye contact	No data available
Ingestion	No data available

Toxicology, Metabolism, Distribution	No data available
Neurological effects	No data available
Further information	Ingestion: No data available

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity

Acute oral toxicity - Product	Acute toxicity estimate: 576.31 mg/kg		Method: Calculation method
Components			
Diaminopolypropylene glycol	Toxicity to fish	LC50: > 100 mg/l Exposure time: 96 h LC50 (Cyprinodon variegatus (sheepshead minnow)): 600 mg/l Exposure time: 96 h Test Type: static test	
	Toxicity to daphnia and other aquatic invertebrates	EC50 (Daphnia magna (Water flea)): 80 mg/l Exposure time: 48 h Test Type: static test Method: OECD Test Guideline 202	
	Toxicity to algae/aquatic plants	EC50 (Pseudokirchneriella subcapitata (algae)): 15 mg/l Exposure time: 72 h Test Type: static test Method: OECD Test Guideline 201	
	Toxicity to microorganisms	EC50 (activated sludge): 750 mg/l Test Type: static test Method: OECD Test Guideline 209	
diethylmethylbenzenediamine	Toxicity to fish	LC50 (Leuciscus idus (Golden orfe)): 200 mg/l Exposure time: 48 h Test Type: static test Test substance: Fresh water Method: DIN 38412	
	Toxicity to daphnia and other aquatic invertebrates	EC50 (Daphnia magna (Water flea)): 0.5 mg/l Exposure time: 48 h Test Type: static test Test substance: Fresh water Method: Directive 67/548/EEC, Annex V, C.2.	

		Toxicity to algae/aquatic plants	ErC50 (Desmodesmus subspicatus (green algae)): ca. 104 mg/l Exposure time: 72 h Test Type: static test Test substance: Fresh water Method: OECD Test Guideline 201
		M-Factor (Acute aquatic toxicity)	1
		Toxicity to fish (Chronic toxicity)	No Data Available
		Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	No Data Available
		M-Factor (Chronic aquatic toxicity)	No Data Available
		Toxicity to microorganisms	EC50 (Pseudomonas putida): >= 170 mg/l Exposure time: 24 h Test Type: static test Test substance: Fresh water
	Propane-1,2-diol, propoxylated	Toxicity to fish	LC0: 4,600 mg/l Exposure time: 48 h Remarks: Toxic to aquatic organisms.
			LC50: > 500 mg/l Exposure time: 96 h
			LC0: 500 mg/l Exposure time: 96 h
			LC50: > 100 mg/l Exposure time: 96 h
		Toxicity to daphnia and other aquatic invertebrates	EC50 (Daphnia magna (Water flea)): > 1,000 mg/l Exposure time: 24 h Method: DIN 38412
		Toxicity to microorganisms	EC10: > 10,000 mg/l IC0: 5,000 mg/l Method: Other guidelines
		Toxicity to soil dwelling organisms	No data available
	Titanium dioxide	Toxicity to fish	LC50 (Cyprinodon variegatus (sheepshead minnow)): > 10,000 mg/l Exposure time: 96 h Test Type: semi-static test Test substance: Marine water Method: OECD Test Guideline 203
		Plant toxicity	NOEC: 100,000 mg/kg Exposure time: 480 h
		Sediment toxicity	(Gammarus pulex (Amphipod)): > 100000 mg/kgsedimentdw Study: Acute Test Type: semi-static test Water: Fresh water Exposure duration: 28 d Method: ASTM Method, other
			(Gammarus pulex (Amphipod)): 100000 mg/kgsedimentdw Study: Chronic Test Type: semi-static test Water: Fresh water Exposure duration: 28 d Method: ASTM Method, other
			(Gammarus pulex (Amphipod)): 14989 mg/kgsedimentdw Study: Acute Test Type: semi-static test Water: Marine water Exposure duration: 10 d

	Toxicity to terrestrial organisms	NOEC: 10,000 mg/kg Exposure time: 672 h
	Ecotoxicology Assessment Acute aquatic toxicity	No data available
4,4'-methylenebis[N-sec-butylaniline]	Chronic aquatic toxicity	This product has no known ecotoxicological effects.
	Toxicity Data on Soil	No data available
	Other organisms relevant to the environment	No data available

Persistence and Degradability

Components		
diethylmethylbenzenediamine	Biodegradability	Result: Not readily biodegradable. Biodegradation: < 60 % Exposure time: 28 d
		Result: Not readily biodegradable. Biodegradation: < 1 % Exposure time: 28 d Method: OECD Test Guideline 301D
Propane-1,2-diol, propoxylated	Biodegradability	Biodegradation: > 70 % Exposure time: 28 d Method: OECD Test Guideline 301F.
	Biochemical Oxygen Demand (BOD)	No data available
	Chemical Oxygen Demand (COD)	No data available
	BOD/COD	No data available
	ThOD	No data available
	BOD/ThOD	No data available
	Dissolved organic carbon (DOC)	No data available
	Physico-chemical removability	No data available
	Stability in water	No data available
diethylmethylbenzenediamine	Photodegradation	Test Type: Air Rate constant: < .00001
	Impact on Sewage Treatment	No data available

Bioaccumulative Potential

Components		
diethylmethylbenzenediamine	Bioaccumulation	Bioconcentration factor (BCF): 13.82 Remarks: Bioaccumulation is unlikely.
		Bioconcentration factor (BCF): 2.75 Remarks: Does not bioaccumulate.
	Partition coefficient: n-octanol/water	log Pow: 1.17 (25 °C) Method: OECD Test Guideline 107
4,4'-methylenebis[N-sec-butylaniline]	Bioaccumulation	Bioconcentration factor (BCF): 4,700
	Partition coefficient: n-octanol/water	log Pow: 6.08 Method: QSAR
Titanium dioxide	Bioaccumulation	Species: Oncorhynchus mykiss (rainbow trout) Bioconcentration factor (BCF): 19 - 352 Exposure time: 14 d Test substance: Fresh water Method: semi-static test Remarks: Does not bioaccumulate.

Mobility in Soil

Mobility	No data available

Components		
diethylmethylbenzenediamine	Distribution among environmental compartments	Koc: 31.72 - 551
4,4'-methylenebis[N-sec-butylaniline]	Distribution among environmental compartments	Koc: 4.91 Method: QSAR
	Stability in soil	No data available

Other Adverse Effects	
Environmental fate and pathways	No data available
Results of PBT and vPvB assessment	No data available
Endocrine disrupting potential	No data available
Adsorbed organic bound halogens (AOX)	No data available

Hazardous to the Ozone Layer	
Ozone-Depletion Potential	Not applicable
Additional ecological information - Product	An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Toxic to aquatic life with long lasting effects.
Global warming potential (GWP)	No data available

SECTION 13: DISPOSAL CONSIDERATIONS

Disposal Methods

Waste from residues: The product should not be allowed to enter drains, water courses or the soil.
Do not contaminate ponds, waterways or ditches with chemical or used container.
Send to a licensed waste management company.
Dispose of as hazardous waste in compliance with local and national regulations.
Dispose of contents/ container to an approved waste disposal plant.

Contaminated packaging: Empty remaining contents.
Dispose of as unused product.
Do not re-use empty containers.

SECTION 14: TRANSPORT INFORMATION

International Regulations

IATA
UN/ID No. : UN 2735
Proper Shipping Name : Amines, liquid, corrosive, n.o.s. (POLYOXYPROPYLENEDIAMINE)
Class : 8
Packing Group : II
Labels : Corrosive
Packing Instruction (cargo aircraft) : 855
Packing Instruction (passenger aircraft): 851

IMDG
UN Number : UN 2735
Proper Shipping Name : Amines, liquid, corrosive, n.o.s. (POLYOXYPROPYLENEDIAMINE)
Class : 8
Packing Group : II
Labels : 8
EmS Code : F-A, S-B
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

ADG	UN Number	: UN 2735
	Proper Shipping Name	: Amines, liquid, corrosive, n.o.s. (POLYOXYPROPYLENEDIAMINE)
	Class	: 8
	Packing Group	: II
	Labels	: 8
	Hazchem Code	: 2X

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

Safety, Health and Environmental Regulations / Legislation specific for the Substance or Mixture

Standard for the Uniform Scheduling of Medicines and Poisons

: No poison schedule number allocated

Australia Work Health and Safety Regulations - Schedule 10 Prohibited carcinogens, restricted carcinogens and restricted hazardous chemicals.

: There is no applicable prohibition or notification/licensing requirements, including for carcinogens under Commonwealth, State or Territory legislation.

The components of this product are reported in the following inventories:

DSL	: All components of this product are on the Canadian DSL
AICS	: On the inventory, or in compliance with the inventory
NZIoC	: On the inventory, or in compliance with the inventory
ENCS	: On the inventory, or in compliance with the inventory
KECI	: On the inventory, or in compliance with the inventory
PICCS	: On the inventory, or in compliance with the inventory
IECSC	: On the inventory, or in compliance with the inventory
TCSI	: On the inventory, or in compliance with the inventory
TSCA	: On the inventory, or in compliance with the inventory

Inventories:

AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), TCSI (Taiwan), TSCA (USA)

SECTION 16: OTHER INFORMATION

AU OEL: Australia. Workplace Exposure Standards for Airborne Contaminants

AU OEL / TWA: Exposure standard - time weighted average

The information and recommendations in this publication are to the best of our knowledge, information and belief accurate at the date of publication, NOTHING HEREIN IS TO BE CONSTRUED AS A WARRANTY, EXPRESS OR OTHERWISE.

IN ALL CASES, IT IS THE RESPONSIBILITY OF THE USER TO DETERMINE THE APPLICABILITY OF SUCH INFORMATION AND RECOMMENDATIONS AND THE SUITABILITY OF ANY PRODUCT FOR ITS OWN PARTICULAR PURPOSE.

THE PRODUCT MAY PRESENT HAZARDS AND SHOULD BE USED WITH CAUTION. WHILE CERTAIN HAZARDS ARE DESCRIBED IN THIS PUBLICATION, NO GUARANTEE IS MADE THAT THESE ARE THE ONLY HAZARDS THAT EXIST.

Hazards, toxicity and behaviour of the products may differ when used with other materials and are dependent upon the manufacturing circumstances or other processes. Such hazards, toxicity and behaviour should be determined by the user and made known to handlers, processors and end users.

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