

SAFETY DATA SHEET

MULTIBASE S.A.

according to GB/T 16483 and GB/T 17519

Product name: TPSiV[™] 4200-70A Custom Color Thermoplastic Elastomer SDS Number: 4129979 Date of first issue: 16.05.2016 Issue Date: 18.01.2019

Print Date: 28.02.2023

MULTIBASE S.A. encourages and expects you to read and understand the entire (M)SDS, as there is important information throughout the document. We expect you to follow the precautions identified in this document unless your use conditions would necessitate other appropriate methods or actions.

1. PRODUCT AND COMPANY IDENTIFICATION

Product name: TPSiV™ 4200-70A Custom Color Thermoplastic Elastomer

Recommended use of the chemical and restrictions on use Identified uses: Electrical industry and electronics

COMPANY IDENTIFICATION

MULTIBASE S.A. ZI CHARTREUSE-GUIERS 38380 SAINT LAURENT DU PONT FRANCE

Customer Information Number:

00800-3876-6838 SDSQuestion-EU@dupont.com

EMERGENCY TELEPHONE NUMBER

24-Hour Emergency Contact: +(33)-975181407 **Local Emergency Contact:** 0532 83889090

2. HAZARDS IDENTIFICATION

Emergency Overview

Appearance Color

Odor

Thermoplastic Pellet No data available slight

Harmful to aquatic life with long lasting effects.

GHS Classification

Classified as hazardous according to regulatory criteria. Chronic aquatic toxicity - Category 3

GHS label elements

Hazard statements

Harmful to aquatic life with long lasting effects.

Precautionary statements

Prevention

Avoid release to the environment.

Disposal

Dispose of contents/ container to an approved waste disposal plant.

Physical and chemical hazards

Not classified based on available information.

Health hazards

Not classified based on available information.

Environmental hazards

Harmful to aquatic life with long lasting effects.

Other hazards

No data available

3. COMPOSITION/INFORMATION ON INGREDIENTS

This product is a mixture. Component	CASRN	Concentration
Chromium oxide (Cr2O3)	1308-38-9	<= 4.0 %
C.I. Pigment Yellow 109	5045-40-9	<= 4.0 %
C.I. Pigment Green 26	68187-49-5	<= 4.0 %
C.I. Pigment Blue 36	68187-11-1	<= 4.0 %
Ammonium manganese(3+) diphosphate	10101-66-3	<= 4.0 %
Iron oxide (Fe2O3)	1309-37-1	<= 4.0 %
Ultramarine blue pigment	57455-37-5	<= 4.0 %

Limestone

1317-65-3

<= 3.8 %

4. FIRST AID MEASURES

Description of first aid measures Protection of first-aiders:

First Aid responders should pay attention to self-protection and use the recommended protective clothing (chemical resistant gloves, splash protection). If potential for exposure exists refer to Section 8 for specific personal protective equipment.

Inhalation: Move person to fresh air; if effects occur, consult a physician.

Skin contact: Wash off with plenty of water. Seek first aid or medical attention as needed. If molten material comes in contact with the skin, do not apply ice but cool under ice water or running stream of water. DO NOT attempt to remove the material from skin. Removal could result in severe tissue damage. Seek medical attention immediately. Suitable emergency safety shower facility should be immediately available.

Eye contact: Flush eyes thoroughly with water for several minutes. Remove contact lenses after the initial 1-2 minutes and continue flushing for several additional minutes. If effects occur, consult a physician, preferably an ophthalmologist.

Ingestion: No emergency medical treatment necessary.

Most important symptoms and effects, both acute and delayed: Aside from the information found under Description of first aid measures (above) and Indication of immediate medical attention and special treatment needed (below), any additional important symptoms and effects are described in Section 11: Toxicology Information.

Indication of any immediate medical attention and special treatment needed

Notes to physician: If burn is present, treat as any thermal burn, after decontamination. No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

5. FIREFIGHTING MEASURES

Extinguishing media

Suitable extinguishing media: Water spray Alcohol-resistant foam Carbon dioxide (CO2) Dry chemical

Unsuitable extinguishing media: None known.

Special hazards arising from the substance or mixture

Hazardous combustion products: Nitrogen oxides (NOx) Hydrogen cyanide (hydrocyanic acid) Isocyanates Carbon oxides Silicon oxides Formaldehyde Chlorine compounds Chromium compounds Cobalt compounds Metal oxides Sulphur oxides Oxides of phosphorus Copper oxides

Unusual Fire and Explosion Hazards: Exposure to combustion products may be a hazard to health.

Advice for firefighters

Fire Fighting Procedures: Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Contain fire water run-off if possible. Fire water run-off, if not contained, may cause environmental damage.

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Use water spray to cool unopened containers. Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Remove undamaged containers from fire area if it is safe to do so. Evacuate area.

Special protective equipment for firefighters: Wear self-contained breathing apparatus for firefighting if necessary. Use personal protective equipment.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures: Follow safe handling advice and personal protective equipment recommendations.

Environmental precautions: Do not release the product to the aquatic environment above defined regulatory levels Prevent further leakage or spillage if safe to do so. Retain and dispose of contaminated wash water. Local authorities should be advised if significant spillages cannot be contained.

Methods and materials for containment and cleaning up: Sweep up or vacuum up spillage and collect in suitable container for disposal. Local or national regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup of releases. You will need to determine which regulations are applicable. Sections 13 and 15 of this SDS provide information regarding certain local or national requirements. See sections: 7, 8, 11, 12 and 13.

7. HANDLING AND STORAGE

Precautions for safe handling: Take care to prevent spills, waste and minimize release to the environment. Handle in accordance with good industrial hygiene and safety practice. Use only with adequate ventilation. See Engineering measures under EXPOSURE CONTROLS/PERSONAL PROTECTION section.

Conditions for safe storage: Keep in properly labelled containers. Store in accordance with the particular national regulations.

Do not store with the following product types: Strong oxidizing agents.

Unsuitable materials for containers: None known.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

If exposure limits exist, they are listed below. If no exposure limits are displayed, then no values are applicable.

Component	Regulation	Type of listing	Value/Notation
Chromium oxide (Cr2O3)	ACGIH	TWA Inhalable	0.003 mg/m3 ,
		fraction	chromium
C.I. Pigment Green 26	ACGIH	TWA	0.5 mg/m3 , chromium
	ACGIH	TWA	0.02 mg/m3,Cobalt
	GBZ 2.1-2007	PC-TWA	0.05 mg/m3,Cobalt
	GBZ 2.1-2007	PC-STEL	0.1 mg/m3,Cobalt
C.I. Pigment Blue 36	ACGIH	TWA	0.5 mg/m3 , chromium
	ACGIH	TWA	0.02 mg/m3,Cobalt
	GBZ 2.1-2007	PC-TWA	0.05 mg/m3,Cobalt
	GBZ 2.1-2007	PC-STEL	0.1 mg/m3,Cobalt
Ammonium manganese(3+)	ACGIH	TWA Inhalable	0.1 mg/m3 ,
diphosphate		fraction	Manganese
	ACGIH	TWA Respirable	0.02 mg/m3 ,
		fraction	Manganese
	GBZ 2.1-2007	PC-TWA	0.15 mg/m3,MnO2
Iron oxide (Fe2O3)	ACGIH	TWA Respirable	5 mg/m3
		fraction	
Ultramarine blue pigment	ACGIH	TWA Respirable	1 mg/m3 , Aluminium
		fraction	
Limestone	GBZ 2.1-2007	PC-TWA Total dust	8 mg/m3
	GBZ 2.1-2007	PC-TWA Respirable	4 mg/m3
		dust	

Although some of the components of this product may have exposure guidelines, no exposure would be expected under normal handling conditions due to the physical state of the material.

Biological	occupational	exposure	limits
Diologioui	ooouputionui	onpooulo	

Components	CAS-No.	Control	Biological	Sampling	Permissible	Basis
		parameters	specimen	time	concentration	
C.I. Pigment Green 26	68187-49- 5	Cobalt (Cobalt)	Urine	End of shift at end of workweek	15 µg/l	ACGIH BEI
C.I. Pigment Blue 36	68187-11- 1	Cobalt (Cobalt)	Urine	End of shift at end of workweek	15 µg/l	ACGIH BEI

Exposure controls

Engineering controls: Use local exhaust ventilation, or other engineering controls to maintain airborne levels below exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, general ventilation should be sufficient for most operations.

Individual protection measures

Eye/face protection: Use safety glasses (with side shields). If there is a potential for exposure to particles which could cause eye discomfort, wear chemical goggles. If exposure causes eye discomfort, use a full-face respirator.

Skin protection

Hand protection: Chemical protective gloves should not be needed when handling this material. Consistent with general hygienic practice for any material, skin contact should be minimized. Use gloves to protect from mechanical injury. Selection of gloves will depend on the task. Use gloves with insulation for thermal protection, when needed.

Other protection: No precautions other than clean body-covering clothing should be needed.

Respiratory protection: Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, wear respiratory protection when adverse effects, such as respiratory irritation or discomfort have been experienced, or where indicated by your risk assessment process. For most conditions no respiratory protection should be needed; however, if discomfort is experienced, use an approved air-purifying respirator. The following should be effective types of air-purifying respirators: When dust/mist are present use a/an Particulate filter. When combinations of vapors, acids, or dusts/mists are present use a/an Organic vapor cartridge with a particulate pre-filter.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Physical state	Thermoplastic Pellet
Color	No data available
Odor	slight
Odor Threshold	No data available
рН	Not applicable
Melting point/range	No data available
Freezing point	No data available
Boiling point (760 mmHg)	Not applicable
Flash point	Not applicable
Evaporation Rate (Butyl Acetate = 1)	Not applicable
Flammability (solid, gas)	Not classified as a flammability hazard
Lower explosion limit	No data available
Upper explosion limit	No data available

Vapor Pressure	Not applicable
Relative Vapor Density (air = 1)	No data available
Relative Density (water = 1)	1.15
Water solubility	No data available
Partition coefficient: n- octanol/water	No data available
Autoignition Temperature	No data available
Decomposition temperature	No data available
Dynamic Viscosity	Not applicable
Kinematic Viscosity	Not applicable
Explosive properties	Not explosive
Oxidizing properties	The substance or mixture is not classified as oxidizing.
Molecular weight	No data available
Particle size	No data available

NOTE: The physical data presented above are typical values and should not be construed as a specification.

10. STABILITY AND REACTIVITY

Reactivity: Not classified as a reactivity hazard.

Chemical stability: Stable under normal conditions.

Possibility of hazardous reactions: Can react with strong oxidizing agents.

Conditions to avoid: Do not expose to temperatures above 560 degrees F/293 degrees C. Decomposition or ignition may occur when heated above.

Incompatible materials: Oxidizing agents

Hazardous decomposition products: Ethane. Ethylene. Propylene.

11. TOXICOLOGICAL INFORMATION

Toxicological information appears in this section when such data is available.

Acute toxicity

Acute oral toxicity

Very low toxicity if swallowed. Harmful effects not anticipated from swallowing small amounts.

As product: Single dose oral LD50 has not been determined.

Typical for this family of materials.

LD50, Rat, > 5,000 mg/kg Estimated.

Acute dermal toxicity

No adverse effects anticipated by skin absorption.

The dermal LD50 has not been determined.

Typical for this family of materials. LD50, Rabbit, > 2,000 mg/kg Estimated.

Acute inhalation toxicity

Vapors are unlikely due to physical properties.

The LC50 has not been determined.,

Skin corrosion/irritation

Essentially nonirritating to skin. Mechanical injury only. Under normal processing conditions, material is heated to elevated temperatures; contact with the material may cause thermal burns.

Serious eye damage/eye irritation

Solid or dust may cause irritation or corneal injury due to mechanical action. Elevated temperatures may generate vapor levels sufficient to cause eye irritation. Effects may include discomfort and redness.

Sensitization

For skin sensitization: No relevant data found.

For respiratory sensitization: No relevant data found.

Specific Target Organ Systemic Toxicity (Single Exposure)

The substance or mixture is not classified as specific target organ toxicant, single exposure.

Specific Target Organ Systemic Toxicity (Repeated Exposure)

Additives are encapsulated in the product and are not expected to be released under normal processing conditions or foreseeable emergency.

Carcinogenicity

Contains a component(s) that is/are encapsulated in the product and are not expected to be released under normal processing conditions or foreseeable emergency

Teratogenicity No relevant data found.

Reproductive toxicity

No relevant data found.

Mutagenicity

No relevant data found.

Aspiration Hazard

Based on physical properties, not likely to be an aspiration hazard.

12. ECOLOGICAL INFORMATION

Ecotoxicological information appears in this section when such data is available.

Ecotoxicity

Chromium oxide (Cr2O3)

Acute toxicity to fish Not expected to be acutely toxic to aquatic organisms. LC50, Danio rerio (zebra fish), static test, 96 Hour, > 10,000 mg/l, ISO 7346/1

Acute toxicity to algae/aquatic plants

EC50, Desmodesmus subspicatus (green algae), 72 Hour, > 848.6 mg/l, OECD Test Guideline 201

Toxicity to bacteria

EC50, 3 Hour, > 10,000 mg/l

Chronic toxicity to fish

NOEC, Danio rerio (zebra fish), 30 d, 1,000 mg/l

Chronic toxicity to aquatic invertebrates

No toxicity at the limit of solubility NOEC, Daphnia magna (Water flea), 21 d, > 0.02 mg/l

C.I. Pigment Yellow 109

Acute toxicity to fish

For similar material(s): Material is practically non-toxic to aquatic organisms on an acute basis (LC50/EC50/EL50/LL50 >100 mg/L in the most sensitive species tested). LC50, Danio rerio (zebra fish), 96 Hour, > 100 mg/l, OECD Test Guideline 203

Acute toxicity to aquatic invertebrates

Based on data from similar materials EC50, Daphnia magna (Water flea), 48 Hour, > 100 mg/l, OECD Test Guideline 202

Acute toxicity to algae/aquatic plants

Based on data from similar materials EC50, Desmodesmus subspicatus (green algae), 72 Hour, > 100 mg/l, OECD Test Guideline 201

Toxicity to bacteria

EC50, 0.5 Hour, > 1,000 mg/l, OECD Test Guideline 209

C.I. Pigment Green 26

Acute toxicity to fish

No toxicity up to the level of maximum water solubility.

C.I. Pigment Blue 36

Acute toxicity to fish No relevant data found.

Ammonium manganese(3+) diphosphate

Acute toxicity to fish No relevant data found.

Iron oxide (Fe2O3)

Acute toxicity to fish Material is practically non-toxic to fish on an acute basis (LC50 > 100 mg/L). LC50, Danio rerio (zebra fish), static test, 96 Hour, > 50,000 mg/l

Acute toxicity to aquatic invertebrates

EC50, Daphnia magna (Water flea), static test, 48 Hour, > 100 mg/l, OECD Test Guideline 202

Toxicity to bacteria

EC50, Pseudomonas fluorescens, 24 Hour, >5,000 mg/l EC50, activated sludge, static test, 3 Hour, Respiration rates., > 10,000 mg/l, ISO 8192

Ultramarine blue pigment

Acute toxicity to fish

Material is slightly toxic to aquatic organisms on an acute basis (LC50/EC50 between 10 and 100 mg/L in the most sensitive species tested). LC50, Oryzias latipes (Medaka), 96 Hour, > 90 mg/l, OECD Test Guideline 203

Acute toxicity to aquatic invertebrates

EC50, Daphnia magna (Water flea), static test, 48 Hour, > 21 mg/l

Acute toxicity to algae/aquatic plants

EC50, Pseudokirchneriella subcapitata (green algae), 72 Hour, Growth rate inhibition, > 99 mg/l, OECD Test Guideline 201

Chronic toxicity to aquatic invertebrates

NOEC, Daphnia magna (Water flea), 21 d, number of offspring, 26 mg/l

Limestone

Acute toxicity to fish

Material is practically non-toxic to aquatic organisms on an acute basis (LC50/EC50/EL50/LL50 >100 mg/L in the most sensitive species tested). LC50, Oncorhynchus mykiss (rainbow trout), 96 Hour, > 10,000 mg/l

Acute toxicity to aquatic invertebrates EC50, Daphnia magna (Water flea), 48 Hour, > 1,000 mg/l

Acute toxicity to algae/aquatic plants

EC50, Desmodesmus subspicatus (green algae), 72 Hour, > 200 mg/l

Persistence and Degradability

Chromium oxide (Cr2O3)

Biodegradability: Biodegradation is not applicable.

<u>C.I. Pigment Yellow 109</u> Biodegradability: No relevant data found.

C.I. Pigment Green 26 Biodegradability: No relevant data found.

C.I. Pigment Blue 36

Biodegradability: No relevant data found.

<u>Ammonium manganese(3+) diphosphate</u> Biodegradability: No relevant data found.

Iron oxide (Fe2O3)

Biodegradability: Biodegradation is not applicable.

Ultramarine blue pigment

Biodegradability: Biodegradation is not applicable.

Limestone

Biodegradability: No relevant data found.

Bioaccumulative Potential

Chromium oxide (Cr2O3)

Bioaccumulation: Bioconcentration potential is low (BCF < 100 or Log Pow < 3). **Partition coefficient: n-octanol/water(log Pow):** 2.97 Estimated. **Bioconcentration factor (BCF):** 39 Fish Estimated.

C.I. Pigment Yellow 109

Bioaccumulation: Bioconcentration potential is low (BCF less than 100 or log Pow greater than 7).

Partition coefficient: n-octanol/water(log Pow): 8.66 Estimated.

C.I. Pigment Green 26

Bioaccumulation: No relevant data found.

C.I. Pigment Blue 36

Bioaccumulation: No relevant data found.

Ammonium manganese(3+) diphosphate

Bioaccumulation: No relevant data found.

Iron oxide (Fe2O3)

Bioaccumulation: Partitioning from water to n-octanol is not applicable.

Ultramarine blue pigment

Bioaccumulation: No data available.

Limestone

Bioaccumulation: No relevant data found.

Mobility in Soil

Chromium oxide (Cr2O3)

Potential for mobility in soil is high (Koc between 50 and 150). **Partition coefficient (Koc):** 80 Estimated.

C.I. Pigment Yellow 109

Expected to be relatively immobile in soil (Koc > 5000). **Partition coefficient (Koc):** 2493000 Estimated.

C.I. Pigment Green 26

No relevant data found.

C.I. Pigment Blue 36

No relevant data found.

Ammonium manganese(3+) diphosphate

No relevant data found.

Iron oxide (Fe2O3)

No relevant data found.

Ultramarine blue pigment

No data available.

Limestone

No relevant data found.

Results of PBT and vPvB assessment

Chromium oxide (Cr2O3)

This substance has not been assessed for persistence, bioaccumulation and toxicity (PBT).

C.I. Pigment Yellow 109

This substance is not considered to be persistent, bioaccumulating and toxic (PBT).

C.I. Pigment Green 26

This substance has not been assessed for persistence, bioaccumulation and toxicity (PBT).

C.I. Pigment Blue 36

This substance has not been assessed for persistence, bioaccumulation and toxicity (PBT).

Ammonium manganese(3+) diphosphate

This substance has not been assessed for persistence, bioaccumulation and toxicity (PBT).

Ultramarine blue pigment

This substance has not been assessed for persistence, bioaccumulation and toxicity (PBT).

Limestone

This substance has not been assessed for persistence, bioaccumulation and toxicity (PBT).

Other adverse effects

Chromium oxide (Cr2O3)

This substance is not on the Montreal Protocol list of substances that deplete the ozone layer.

C.I. Pigment Yellow 109

This substance is not on the Montreal Protocol list of substances that deplete the ozone layer.

C.I. Pigment Green 26

This substance is not on the Montreal Protocol list of substances that deplete the ozone layer.

C.I. Pigment Blue 36

This substance is not on the Montreal Protocol list of substances that deplete the ozone layer.

Ammonium manganese(3+) diphosphate

This substance is not on the Montreal Protocol list of substances that deplete the ozone layer.

Iron oxide (Fe2O3)

This substance is not on the Montreal Protocol list of substances that deplete the ozone layer.

Ultramarine blue pigment

This substance is not on the Montreal Protocol list of substances that deplete the ozone layer.

Limestone

This substance is not on the Montreal Protocol list of substances that deplete the ozone layer.

13. DISPOSAL CONSIDERATIONS

Disposal methods: DO NOT DUMP INTO ANY SEWERS, ON THE GROUND, OR INTO ANY BODY OF WATER. All disposal practices must be in compliance with all Federal, State/Provincial and local laws and regulations. Regulations may vary in different locations. Waste characterizations and compliance with applicable laws are the responsibility solely of the waste generator. AS YOUR SUPPLIER, WE HAVE NO CONTROL OVER THE MANAGEMENT PRACTICES OR MANUFACTURING PROCESSES OF PARTIES HANDLING OR USING THIS MATERIAL. THE INFORMATION PRESENTED HERE PERTAINS ONLY TO THE PRODUCT AS SHIPPED IN ITS

INTENDED CONDITION AS DESCRIBED IN MSDS SECTION: Composition Information. FOR UNUSED & UNCONTAMINATED PRODUCT, the preferred options include sending to a licensed, permitted: Recycler. Reclaimer. Incinerator or other thermal destruction device. For additional information, refer to: Handling & Storage Information, MSDS Section 7 Stability & Reactivity Information, MSDS Section10 Regulatory Information, MSDS Section 15

Treatment and disposal methods of used packaging: Empty containers should be recycled or otherwise disposed of by an approved waste management facility. Waste characterizations and compliance with applicable laws are the responsibility solely of the waste generator. Do not re-use containers for any purpose.

This product when disposed of in its unused and uncontaminated state should be treated as a hazardous waste.

14. TRANSPORT INFORMATION

Classification for ROAD and Rail transport:

Not regulated for transport

Classification for SEA transport (IMO-IMDG):

Transport in bulk according to Annex I or II of MARPOL 73/78 and the IBC or IGC Code Not regulated for transport Consult IMO regulations before transporting ocean bulk

Classification for AIR transport (IATA/ICAO):

Not regulated for transport

This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. Transportation classifications may vary by container volume and may be influenced by regional or country variations in regulations. Additional transportation system information can be obtained through an authorized sales or customer service representative. It is the responsibility of the transportation of the material.

15. REGULATORY INFORMATION

The following statutes, regulations and standards have the related prescribes on chemicals in terms of safe use, storage, transportation, loading and unloading, classification and symbol etc. Provisions on the Environmental Administration of New Chemical Substances.

The Regulation on Chemicals Safe Use at Working Site Law on Prevention and Control of Environmental Pollution Caused by Solid Waste. Regulation on the Safety Management of Hazardous Chemicals Catalogue of Hazardous Chemicals: Not applicable

General rule of classification and hazard communication of chemicals (GB 13690) Occupational Exposure Limits for Hazardous Agent in The workshop Chemical Hazardous Agents(GBZ 2.1).

China. Inventory of Existing Chemical Substances in China (IECSC) (IECSC)

All intentional components are listed on the inventory, are exempt, or are supplier certified.

16. OTHER INFORMATION

Revision

Identification Number: 4129979 / A735 / Issue Date: 18.01.2019 / Version: 4.0 Most recent revision(s) are noted by the bold, double bars in left-hand margin throughout this document.

Date of first issue: 16.05.2016

Legend

Logona	
ACGIH	USA. ACGIH Threshold Limit Values (TLV)
ACGIH BEI	ACGIH - Biological Exposure Indices (BEI)
GBZ 2.1-2007	Occupational exposure limits for hazardous agents in the workplace - Chemical
	hazardous agents.
PC-STEL	Permissible concentration - short term exposure limit
PC-TWA	Permissible concentration - time weighted average
TWA	8-hour, time-weighted average

Full text of other abbreviations

AICS - Australian Inventory of Chemical Substances; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; CPR - Controlled Products Regulations; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO -International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL -Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI -Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 -Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; Nch - Chilean Norm; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; NTP - National

Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TDG - Transportation of Dangerous Goods; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative; WHMIS - Workplace Hazardous Materials Information System

Information Source and References

This SDS is prepared by Product Regulatory Services and Hazard Communications Groups from information supplied by internal references within our company.

MULTIBASE S.A. urges each customer or recipient of this (M)SDS to study it carefully and consult appropriate expertise, as necessary or appropriate, to become aware of and understand the data contained in this (M)SDS and any hazards associated with the product. The information herein is provided in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied, is given. Regulatory requirements are subject to change and may differ between various locations. It is the buyer's/user's responsibility to ensure that his activities comply with all federal, state, provincial or local laws. The information presented here pertains only to the product as shipped. Since conditions for use of the product are not under the control of the manufacturer, it is the buyer's/user's duty to determine the conditions necessary for the safe use of this product. Due to the proliferation of sources for information such as manufacturer-specific (M)SDSs, we are not and cannot be responsible for (M)SDSs obtained from any source other than ourselves. If you have obtained an (M)SDS from another source or if you are not sure that the (M)SDS you have is current, please contact us for the most current version.

CN