QIAstat-Dx GI2 Panel Mini B&V Cartridge

Version	Revision Date:	Date of last issue: -
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SECTION 1. IDENTIFICATION

Product name : QIAstat-Dx GI2 Panel Mini B&V Cartridge

Manufacturer or supplier's details

Company : QIAGEN GmbH
QIAGEN Str. 1
D-40724 Hilden

Telephone : +49-(0)2103-29-0

Responsible Department : QIAGEN Inc.
19300 Germantown Road
Germantown, MD 20874, USA
Tel.: 800-426-8157
http://support.qiagen.com

E-mail address Responsible/issuing person : cpc@qiagen.com

Emergency telephone : CHEMTREC
USA & Canada 1-800-424-9300
CHEMTREC: 1-800-424-9300

SECTION 2. HAZARDS IDENTIFICATION

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

Flammable liquids	:	Category 2
Acute toxicity (Oral)	:	Category 4
Acute toxicity (Inhalation)	:	Category 4
Skin corrosion	:	Category 1C
Serious eye damage	:	Category 1
Respiratory sensitization	:	Category 1
Specific target organ toxicity - single exposure	:	Category 3 (Central nervous system)
Long-term (chronic) aquatic hazard	:	Category 3

GHS label elements

Hazard pictograms :



Signal Word : Danger

Hazard Statements :
H225 Highly flammable liquid and vapor.
H302 + H332 Harmful if swallowed or if inhaled.
H314 Causes severe skin burns and eye damage.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H336 May cause drowsiness or dizziness.
H412 Harmful to aquatic life with long lasting effects.

Precautionary Statements :

Prevention:

P210 Keep away from heat/ sparks/ open flames/ hot surfaces. No smoking.
P261 Avoid breathing mist or vapors.
P264 Wash skin thoroughly after handling.
P271 Use only outdoors or in a well-ventilated area.
P273 Avoid release to the environment.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
P285 In case of inadequate ventilation wear respiratory protection.

Response:

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 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor.
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/ doctor.
P342 + P311 If experiencing respiratory symptoms: Call a POISON CENTER/ doctor.
P363 Wash contaminated clothing before reuse.

Storage:

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
P403 + P235 Store in a well-ventilated place. Keep cool.

Disposal:

P501 Dispose of contents/ container to an approved waste disposal plant.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Components

Chemical name	CAS-No.	Concentration (% w/w)
ethanol	64-17-5	>= 50 - < 70
guanidine hydrochloride	50-01-1	>= 30 - < 50
isopropanol	67-63-0	>= 30 - < 50
guanidinium thiocyanate	593-84-0	>= 30 - < 50
t-Octylphenoxypolyethoxyethanol	9002-93-1	>= 1 - < 10
poly(ethylene glycol)	25322-68-3	>= 1 - < 10
lithium chloride	7447-41-8	>= 1 - < 10
Poly[oxy(methyl-1,2-ethanediyl)], .alpha.-hydro-.omega.-hydroxy-	25322-69-4	>= 1 - < 10
sodium dodecyl sulphate	151-21-3	>= 1 - < 10
proteinase K	39450-01-6	>= 0.1 - < 1

Actual concentration is withheld as a trade secret

SECTION 4. FIRST AID MEASURES

General advice : Move out of dangerous area.
Show this material safety data sheet to the doctor in attendance.

If inhaled : If unconscious, place in recovery position and seek medical advice.
Keep respiratory tract clear.
If symptoms persist, call a physician.

In case of skin contact : Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.
Immediate medical treatment is necessary as untreated wounds from corrosion of the skin heal slowly and with difficulty.

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.
Remove contact lenses.
Protect unharmed eye.

If swallowed : If accidentally swallowed obtain immediate medical attention.
Rinse mouth with water.
Never give anything by mouth to an unconscious person.

Most important symptoms and effects, both acute and delayed : No information available.
Harmful if swallowed or if inhaled.
Causes serious eye damage.
May cause allergy or asthma symptoms or breathing difficulties if inhaled.
May cause drowsiness or dizziness.
Causes severe burns.

Notes to physician : No information available.

SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media	:	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Specific hazards during fire fighting	:	Do not allow run-off from fire fighting to enter drains or water courses. Exposure to decomposition products may be a hazard to health.
Hazardous combustion products	:	Chlorine compounds Carbon oxides Nitrogen oxides (NOx) Sulfur oxides Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke). potassium oxide
Further information	:	In the event of fire and/or explosion do not breathe fumes. Use a water spray to cool fully closed containers.
Special protective equipment for fire-fighters	:	Wear self-contained breathing apparatus for firefighting if necessary.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	:	Use personal protective equipment. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.
Environmental precautions	:	Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. Should not be released into the environment. Do not let product enter drains.
Methods and materials for containment and cleaning up	:	Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). Unsuitable cleaning agents sodium hypochlorite

SECTION 7. HANDLING AND STORAGE

Advice on protection against fire and explosion	:	Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapors). Use only explosion-proof equipment. Keep away from open flames, hot surfaces and sources of ignition.
Advice on safe handling	:	Avoid formation of aerosol. Do not breathe vapors/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.
Provide sufficient air exchange and/or exhaust in work rooms.
Open drum carefully as content may be under pressure.
Dispose of rinse water in accordance with local and national regulations.
Persons susceptible to skin sensitization problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used.

Conditions for safe storage : Keep container tightly closed in a dry and well-ventilated place.

Materials to avoid : Do not store together with oxidizing and self-igniting products.

Further information on storage stability : No decomposition if stored and applied as directed.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
ethanol	64-17-5	STEL	1,000 ppm	ACGIH
		TWA	1,000 ppm 1,900 mg/m3	OSHA Z-1
		TWA	1,000 ppm 1,900 mg/m3	OSHA P0
isopropanol	67-63-0	TWA	200 ppm	ACGIH
		STEL	400 ppm	ACGIH
		ST	500 ppm 1,225 mg/m3	NIOSH REL
		TWA	400 ppm 980 mg/m3	NIOSH REL
		TWA	400 ppm 980 mg/m3	OSHA Z-1
		STEL	500 ppm 1,225 mg/m3	OSHA P0
		TWA	400 ppm 980 mg/m3	OSHA P0
poly(ethylene glycol)	25322-68-3	TWA (aerosol)	10 mg/m3	US WEEL
Poly[oxy(methyl-1,2-ethanediyl)], .alpha.-hydro-.omega.-hydroxy-	25322-69-4	TWA (aerosol)	10 mg/m3	US WEEL

Biological occupational exposure limits

Components	CAS-No.	Control parameters	Biological specimen	Sampling time	Permissible concentration	Basis
isopropanol	67-63-0	Acetone	Urine	End of	40 mg/l	ACGIH

				shift at end of workweek		BEI

Personal protective equipment

Respiratory protection	:	In the case of vapor formation use a respirator with an approved filter.
Hand protection		
Material	:	Protective gloves
Remarks	:	The choice of an appropriate glove does not only depend on its material but also on other quality features and is different from one producer to the other. Take note of the information given by the producer concerning permeability and break through times, and of special workplace conditions (mechanical strain, duration of contact).
Eye protection	:	Tightly fitting safety goggles Wear face-shield and protective suit for abnormal processing problems. Do not wear contact lenses. Ensure that eyewash stations and safety showers are close to the workstation location.
Skin and body protection	:	Choose body protection according to the amount and concentration of the dangerous substance at the work place. acid-resistant protective clothing Footwear protecting against chemicals Workers should wear antistatic footwear.
Hygiene measures	:	Keep away from food and drink. Wash hands before breaks and at the end of workday. Ensure adequate ventilation, especially in confined areas. Avoid contact with the skin and the eyes. When using do not eat, drink or smoke.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	liquid
Color	:	No data available
Odor	:	No data available
Odor Threshold	:	No data available
pH	:	No data available
Melting point/range	:	No data available
Boiling point/boiling range	:	ca. 172 - 212 °F / 78 - 100 °C
Flash point	:	ca. 70 - 113 °F / 21 - 45 °C
Evaporation rate	:	No data available

Burning rate	:	No data available
Upper explosion limit / Upper flammability limit	:	No data available
Lower explosion limit / Lower flammability limit	:	No data available
Vapor pressure	:	No data available
Relative vapor density	:	No data available
Relative density	:	No data available
Density	:	No data available
Solubility(ies)		
Water solubility	:	soluble
Solubility in other solvents	:	No data available
Partition coefficient: n-octanol/water	:	No data available
Autoignition temperature	:	No data available
Decomposition temperature	:	No data available
Viscosity		
Viscosity, dynamic	:	No data available
Viscosity, kinematic	:	No data available
Explosive properties	:	No data available
Oxidizing properties	:	No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	No decomposition if stored and applied as directed.
Chemical stability	:	No decomposition if stored and applied as directed.
Possibility of hazardous reactions	:	Stable under recommended storage conditions. Hazardous decomposition products formed under fire conditions. Vapors may form explosive mixture with air. Keep away from oxidizing agents, and acidic or alkaline products.
Conditions to avoid	:	Heat, flames and sparks.
Incompatible materials	:	No data available
Hazardous decomposition products	:	No decomposition if stored and applied as directed.

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

Harmful if swallowed or if inhaled.

Product:

Acute oral toxicity : Remarks: No data available

Components:

ethanol:

Acute oral toxicity : LD50 Oral (Rat): 10,470 mg/kg

Acute inhalation toxicity : LC50 (Rat): 20000 ppm
Exposure time: 10 h

guanidine hydrochloride:

Acute oral toxicity : LD50 Oral (Rat): 1,120 mg/kg

isopropanol:

Acute oral toxicity : LD50 Oral (Rat): 5,045 mg/kg

Acute dermal toxicity : LD50 Dermal (Rabbit): 12,800 mg/kg

guanidinium thiocyanate:

Acute oral toxicity : LD50 Oral (Rat, female): 593 mg/kg
Method: OECD Test Guideline 401

Acute toxicity (other routes of administration) : LD50 (Mouse): 300 mg/kg

t-Octylphenoxypolyethoxyethanol:

Acute oral toxicity : LD50 Oral (Rat): 1,800 mg/kg

Acute dermal toxicity : LD50 Dermal (Rabbit): 8,000 mg/kg

poly(ethylene glycol):

Acute inhalation toxicity : Remarks: No data available

Acute dermal toxicity : Remarks: No data available

lithium chloride:

Acute oral toxicity : LD50 Oral (Rat): 526 mg/kg

sodium dodecyl sulphate:

Acute oral toxicity : LD50 Oral (Rat): 977 mg/kg

Acute dermal toxicity : LD50 Dermal (Rabbit): 580 mg/kg

Skin corrosion/irritation

Causes severe burns.

Product:

Remarks : Extremely corrosive and destructive to tissue.
Causes skin burns.

Components:

isopropanol:

Species : Rabbit
Result : Mild skin irritation

sodium dodecyl sulphate:

Species : Rabbit
Exposure time : 24 h
Result : Irritating to skin.

Serious eye damage/eye irritation

Causes serious eye damage.

Product:

Remarks : May cause irreversible eye damage.

Components:

ethanol:

Result : Eye irritation

isopropanol:

Species : Rabbit
Result : Eye irritation
Exposure time : 24 h

t-Octylphenoxypolyethoxyethanol:

Species : Rabbit
Result : Moderate eye irritation
Exposure time : 24 h

sodium dodecyl sulphate:

Species : Rabbit
Result : Risk of serious damage to eyes.
Method : OECD Test Guideline 405

Respiratory or skin sensitization

Skin sensitization

Not classified due to lack of data.

Respiratory sensitization

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Product:

Remarks : May cause sensitization by inhalation and skin contact.

Germ cell mutagenicity

Not classified due to lack of data.

Carcinogenicity

Not classified due to lack of data.

IARC No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

NTP No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Reproductive toxicity

Not classified due to lack of data.

STOT-single exposure

May cause drowsiness or dizziness.

Components:

isopropanol:

Assessment : May cause drowsiness or dizziness.

sodium dodecyl sulphate:

Routes of exposure : Inhalation
Assessment : May cause respiratory irritation.

STOT-repeated exposure

Not classified due to lack of data.

Aspiration toxicity

Not classified due to lack of data.

Further information

Product:

Remarks : Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.
Concentrations substantially above the TLV value may cause narcotic effects.
Solvents may degrease the skin.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Product:

Toxicity to fish : Remarks: No data available

Toxicity to algae/aquatic plants	:	Remarks: No data available
Toxicity to microorganisms	:	Remarks: No data available

Components:

isopropanol:

Toxicity to fish	:	LC50 (Pimephales promelas (fathead minnow)): 9,640 mg/l Exposure time: 96 h
Toxicity to algae/aquatic plants	:	EC50 (Desmodesmus subspicatus (green algae)): 2,000 mg/l Exposure time: 72 h

guanidinium thiocyanate:

Toxicity to fish	:	LC50 (Poecilia reticulata (guppy)): 89.1 mg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia): 42.4 mg/l Exposure time: 48 h
Toxicity to fish (Chronic toxicity)	:	NOEC (Poecilia reticulata (guppy)): 25 mg/l Exposure time: 96 d

t-Octylphenoxypolyethoxyethanol:

Toxicity to fish	:	LC50 (Pimephales promelas (fathead minnow)): 8.9 mg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia): 26 mg/l Exposure time: 48 h
M-Factor (Chronic aquatic toxicity)	:	10

poly(ethylene glycol):

Toxicity to fish	:	(Leuciscus idus (Golden orfe)): > 500 mg/l Exposure time: 96 h Test Type: static test

lithium chloride:

Toxicity to fish	:	LC50 : 17 mg/l Exposure time: 96 h

Poly[oxy(methyl-1,2-ethanediyl)], .alpha.-hydro-.omega.-hydroxy-:

Toxicity to fish	:	LC50 (Oncorhynchus mykiss (rainbow trout)): > 10,000 mg/l Exposure time: 96 h

sodium dodecyl sulphate:

Toxicity to fish	:	NOEC (Oncorhynchus mykiss (rainbow trout)): 19.5 mg/l Exposure time: 96 h

LC50 (Oncorhynchus mykiss (rainbow trout)): 3.6 mg/l
Exposure time: 96 h

Toxicity to algae/aquatic plants : (Pseudokirchneriella subcapitata (green algae)): 2.68 mg/l
Exposure time: 150 h
Test Type: Growth inhibition

Persistence and degradability

Components:

ethanol:

Biodegradability : Result: Readily biodegradable.

guanidine hydrochloride:

Biodegradability : Method: OECD Test Guideline 301C
Remarks: According to the results of tests of biodegradability this product is not readily biodegradable.

Bioaccumulative potential

Product:

Bioaccumulation : Remarks: No data available

Components:

guanidine hydrochloride:

Partition coefficient: n-octanol/water : log Pow: ca. -1.7 (68 °F / 20 °C)

sodium dodecyl sulphate:

Partition coefficient: n-octanol/water : log Pow: 1.6

Mobility in soil

No data available

Other adverse effects

Product:

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

Additional ecological information : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
Harmful to aquatic life with long lasting effects.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues	:	The product should not be allowed to enter drains, water courses or the soil. Send to a licensed waste management company. Dispose of as hazardous waste in compliance with local and national regulations.
Contaminated packaging	:	Dispose of as unused product. Dispose of contents/ container to an approved incineration plant. Do not re-use empty containers.

SECTION 14. TRANSPORT INFORMATION

International Regulations

UNRTDG

UN number	:	UN 2924
Proper shipping name	:	FLAMMABLE LIQUID, CORROSIVE, N.O.S. (ethanol, GUANIDINE THIOCYANATE)
Class	:	3
Subsidiary risk	:	8
Packing group	:	II
Labels	:	3 (8)
Environmentally hazardous	:	no

IATA-DGR

UN/ID No.	:	UN 2924
Proper shipping name	:	Flammable liquid, corrosive, n.o.s. (ethanol, GUANIDINE THIOCYANATE)
Class	:	3
Subsidiary risk	:	8
Packing group	:	II
Labels	:	Flammable Liquids, Corrosive
Packing instruction (cargo aircraft)	:	363
Packing instruction (passenger aircraft)	:	352

IMDG-Code

UN number	:	UN 2924
Proper shipping name	:	FLAMMABLE LIQUID, CORROSIVE, N.O.S. (ethanol, GUANIDINE THIOCYANATE)
Class	:	3
Subsidiary risk	:	8
Packing group	:	II
Labels	:	3 (8)
EmS Code	:	F-E, S-C
Marine pollutant	:	no

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

Not applicable for product as supplied.

Domestic regulation

49 CFR

UN/ID/NA number	:	UN 2924
Proper shipping name	:	Flammable liquids, corrosive, n.o.s. (ethanol, GUANIDINE THIOCYANATE)
Class	:	3
Subsidiary risk	:	8
Packing group	:	II
Labels	:	FLAMMABLE LIQUID, CORROSIVE
ERG Code	:	132
Marine pollutant	:	no

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

CERCLA Reportable Quantity

Listed substances in the product are at low enough levels to not be expected to exceed the RQ

SARA 304 Extremely Hazardous Substances Reportable Quantity

Listed substances in the product are at low enough levels to not be expected to exceed the RQ

SARA 302 Extremely Hazardous Substances Threshold Planning Quantity

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

SARA 311/312 Hazards : Flammable (gases, aerosols, liquids, or solids)
Acute toxicity (any route of exposure)
Respiratory or skin sensitization
Skin corrosion or irritation
Serious eye damage or eye irritation
Specific target organ toxicity (single or repeated exposure)

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

California List of Hazardous Substances

ethanol	64-17-5
isopropanol	67-63-0
Polyvinyl pyrrolidone	9003-39-8

California Permissible Exposure Limits for Chemical Contaminants

ethanol	64-17-5
isopropanol	67-63-0

TSCA list

The following substance(s) is/are subject to a Significant New Use Rule:

ethoxylated nonylphenol	9016-45-9	See 40 CFR § 721.10765; Proposed Rule

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

SECTION 16. OTHER INFORMATION

Full text of other abbreviations

ACGIH	:	USA. ACGIH Threshold Limit Values (TLV)
ACGIH BEI	:	ACGIH - Biological Exposure Indices (BEI)
NIOSH REL	:	USA. NIOSH Recommended Exposure Limits
OSHA P0	:	USA. Table Z-1-A Limits for Air Contaminants (1989 vacated values)
OSHA Z-1	:	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
US WEEL	:	USA. Workplace Environmental Exposure Levels (WEEL)
ACGIH / TWA	:	8-hour, time-weighted average
ACGIH / STEL	:	Short-term exposure limit
NIOSH REL / TWA	:	Time-weighted average concentration for up to a 10-hour workday during a 40-hour workweek
NIOSH REL / ST	:	STEL - 15-minute TWA exposure that should not be exceeded at any time during a workday
OSHA P0 / TWA	:	8-hour time weighted average
OSHA P0 / STEL	:	Short-term exposure limit
OSHA Z-1 / TWA	:	8-hour time weighted average
US WEEL / TWA	:	8-hr TWA

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

Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

SDS Number : 600000012766

Revision Date : 07/16/2024

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

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