# QIAstat-Dx Gastrointestinal Panel FDA

| Version | Revision Date: | Date of last issue: - |
|---|---|---|
| 1.0 | 06/25/2023 | Date of first issue: 06/25/2023 |

**Safety Data Sheet (SDS) cover letter for product:**

**QIAstat-Dx Gastrointestinal Panel FDA**

Catalog number: 691421
Document ID: 800000009258
Country / Language: US / EN

This product contains one or more components with related SDS, listed below. You can find the SDS for each component on the following pages.

Components with SDS:

- QIAstat-Dx Gastrointestinal Panel  Version: -

Kind regards,
Your QIAGEN Team

Email **cpc@qiagen.com** | Website **www.qiagen.com/safety**

## SECTION 1. IDENTIFICATION

Product name : QIAstat-Dx Gastrointestinal Panel

**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 number : CHEMTREC
USA & Canada 1-800-424-9300
CHEMTREC: 1-800-424-9300

**Recommended use of the chemical and restrictions on use**

Recommended use : Laboratory chemicals

## 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 sensitisation : Category 1

Specific target organ toxicity - single exposure : Category 3 (Central nervous system)

**GHS label elements**

Hazard pictograms :



Signal word : Danger

Hazard statements :

H225 Highly flammable liquid and vapour.
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.

Precautionary statements :

**Prevention:**

P210 Keep away from heat/ sparks/ open flames/ hot surfaces. No smoking.
P261 Avoid breathing mist or vapours.
P264 Wash skin thoroughly after handling.
P271 Use only outdoors or in a well-ventilated area.
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 |
| Poly[oxy(methyl-1,2-ethanediyl)], .alpha.-hydro-.omega.-hydroxy- | 25322-69-4 | >= 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 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. FIREFIGHTING MEASURES

Suitable extinguishing media : Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Specific hazards during firefighting : 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 | : | Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke).<br>Carbon oxides<br>Nitrogen oxides (NOx)<br>Sulphur oxides<br>potassium oxide<br>Chlorine compounds |
| Further information | : | In the event of fire and/or explosion do not breathe fumes.<br>Use a water spray to cool fully closed containers. |
| Special protective equipment for firefighters | : | 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.<br>Ensure adequate ventilation.<br>Remove all sources of ignition.<br>Evacuate personnel to safe areas.<br>Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.<br>Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas. |
| Environmental precautions | : | Prevent product from entering drains.<br>Prevent further leakage or spillage if safe to do so.<br>Should not be released into the environment.<br>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).<br>Unsuitable cleaning agents<br>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 vapours).<br>Use only explosion-proof equipment.<br>Keep away from open flames, hot surfaces and sources of ignition. |
| Advice on safe handling | : | Avoid formation of aerosol.<br>Do not breathe vapours/dust.<br>Avoid exposure - obtain special instructions before use.<br>Avoid contact with skin and eyes.<br>For personal protection see section 8.<br>Smoking, eating and drinking should be prohibited in the application area.<br>Provide sufficient air exchange and/or exhaust in work rooms.<br>Open drum carefully as content may be under pressure.<br>Dispose of rinse water in accordance with local and national regulations. |

Persons susceptible to skin sensitisation 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

**Components 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<br>1,900 mg/m3 | OSHA Z-1 |
| | | TWA | 1,000 ppm<br>1,900 mg/m3 | OSHA P0 |
| isopropanol | 67-63-0 | TWA | 200 ppm | ACGIH |
| | | STEL | 400 ppm | ACGIH |
| | | ST | 500 ppm<br>1,225 mg/m3 | NIOSH REL |
| | | TWA | 400 ppm<br>980 mg/m3 | NIOSH REL |
| | | TWA | 400 ppm<br>980 mg/m3 | OSHA Z-1 |
| | | STEL | 500 ppm<br>1,225 mg/m3 | OSHA P0 |
| | | TWA | 400 ppm<br>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 shift at end of workweek | 40 mg/l | ACGIH BEI |

**Personal protective equipment**

Respiratory protection : In the case of vapour 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<br>Wear face-shield and protective suit for abnormal processing problems.<br>Do not wear contact lenses.<br>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.<br>acid-resistant protective clothing<br>Footwear protecting against chemicals<br>Workers should wear antistatic footwear. |
| Hygiene measures | : | Keep away from food and drink.<br>Wash hands before breaks and at the end of workday.<br>Ensure adequate ventilation, especially in confined areas.<br>Avoid contact with the skin and the eyes.<br>When using do not eat, drink or smoke. |

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

| | | |
|---|---|---|
| Appearance | : | liquid |
| Colour | : | No data available |
| Odour | : | No data available |
| Odour 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 |
| Vapour pressure | : | No data available |

| | | |
|---|---|---|
| Relative vapour density | : | No data available |
| Relative density | : | No data available |
| Density | : | No data available |
| Solubility(ies) | | |
| Water solubility | : | No data available |
| Solubility in other solvents | : | No data available |
| Partition coefficient: n-octanol/water | : | No data available |
| Auto-ignition 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.<br>Hazardous decomposition products formed under fire conditions.<br>Vapours may form explosive mixture with air.<br>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 |
| Acute inhalation toxicity | : | Remarks: No data available |
| Acute dermal toxicity | : | Remarks: No data available |

**Components:**

**ethanol:**

| | | |
|---|---|---|
| Acute oral toxicity | : | LD50 Oral (Rat): 10,470 mg/kg |
| Acute inhalation toxicity | : | LC50 (Rat): 20000 ppm<br>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<br>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 |

**Skin corrosion/irritation**

Causes severe burns.

**Product:**

| | | |
|---|---|---|
| Remarks | : | Extremely corrosive and destructive to tissue.<br>Causes skin burns. |

**Components:**

**isopropanol:**

| | | |
|---|---|---|
| Species | : | Rabbit |
| Result | : | Mild skin irritation |

**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 |

**Respiratory or skin sensitisation**

**Skin sensitisation**

Not classified based on available information.

**Respiratory sensitisation**

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

**Product:**

| | | |
|---|---|---|
| Remarks | : | May cause sensitisation by inhalation and skin contact. |

**Germ cell mutagenicity**

Not classified based on available information.

**Carcinogenicity**

Not classified based on available information.

**IARC** No component 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 component 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 based on available information.

**STOT - single exposure**

May cause drowsiness or dizziness.

**Components:**

**isopropanol:**

| | | |
|---|---|---|
| Assessment | : | May cause drowsiness or dizziness. |

**STOT - repeated exposure**

Not classified based on available information.

**Aspiration toxicity**

Not classified based on available information.

**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 (water flea)): 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 (water flea)): 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

**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

**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)

**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 | : | Dispose of contents/container in accordance with local regulation.<br>The product should not be allowed to enter drains, water courses or the soil.<br>Send to a licensed waste management company.<br>Dispose of as hazardous waste in compliance with local and national regulations. |
| Contaminated packaging | : | Dispose of as unused product.<br>Dispose of contents/ container to an approved incineration plant.<br>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) |

**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.

**National Regulations**

**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 sensitisation
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 |

**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

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 : 600000009801

Revision Date : 06/25/2023

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.

US / EN