according to the Hazardous Products Regulations



# **Imidocarb Injection Formulation**

Version Revision Date: SDS Number: Date of last issue: 04/04/2023 2.11 09/30/2023 632240-00017 Date of first issue: 05/02/2016

#### **SECTION 1. IDENTIFICATION**

Product name : Imidocarb Injection Formulation

Other means of identification : No data available

### Manufacturer or supplier's details

Company name of supplier : Merck & Co., Inc Address : 126 E. Lincoln Avenue

Rahway, New Jersey U.S.A. 07065

Telephone : 908-740-4000 Emergency telephone : 1-908-423-6000

E-mail address : EHSDATASTEWARD@merck.com

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

Recommended use : Veterinary product Restrictions on use : Not applicable

#### **SECTION 2. HAZARDS IDENTIFICATION**

GHS classification in accordance with the Hazardous Products Regulations

Reproductive toxicity : Category 2

Specific target organ toxicity

- single exposure (Oral)

: Category 1 (Central nervous system)

Specific target organ toxicity

- repeated exposure (Oral)

: Category 1 (Liver, Kidney)

#### **GHS** label elements

Hazard pictograms



Signal Word : Danger

Hazard Statements : H361d Suspected of damaging the unborn child.

H370 Causes damage to organs (Central nervous system) if

swallowed.

H372 Causes damage to organs (Liver, Kidney) through pro-

longed or repeated exposure if swallowed.

Precautionary Statements : Prevention:

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read

and understood.

P260 Do not breathe mist or vapors. P264 Wash skin thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

according to the Hazardous Products Regulations



# **Imidocarb Injection Formulation**

Version **Revision Date:** SDS Number: Date of last issue: 04/04/2023 09/30/2023 632240-00017 Date of first issue: 05/02/2016 2.11

P280 Wear protective gloves, protective clothing, eye protection

and face protection.

Response:

P308 + P311 IF exposed or concerned: Call a doctor.

Storage:

P405 Store locked up.

Disposal:

P501 Dispose of contents and container to an approved waste

disposal plant.

Other hazards

None known.

#### **SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

Substance / Mixture Mixture

Components

Chemical name	Common Name/Synonym	CAS-No.	Concentration (% w/w)
Imidocarb	No data availa- ble	27885-92-3	>= 10 - < 30 *
Propionic acid	No data availa- ble	79-09-4	>= 1 - < 5 *

Actual concentration or concentration range is withheld as a trade secret

#### **SECTION 4. FIRST AID MEASURES**

General advice In the case of accident or if you feel unwell, seek medical

advice immediately.

When symptoms persist or in all cases of doubt seek medical

advice.

If inhaled If inhaled, remove to fresh air.

Get medical attention.

In case of skin contact In case of contact, immediately flush skin with soap and plenty

of water.

Remove contaminated clothing and shoes.

Get medical attention. Wash clothing before reuse.

Thoroughly clean shoes before reuse. Flush eyes with water as a precaution. In case of eye contact

Get medical attention if irritation develops and persists.

If swallowed If swallowed, DO NOT induce vomiting.

Get medical attention.

Rinse mouth thoroughly with water.

Never give anything by mouth to an unconscious person.

Most important symptoms

and effects, both acute and

delayed

Suspected of damaging the unborn child. Causes damage to organs if swallowed.

Causes damage to organs through prolonged or repeated

according to the Hazardous Products Regulations



# **Imidocarb Injection Formulation**

Version Revision Date: SDS Number: Date of last issue: 04/04/2023 2.11 09/30/2023 632240-00017 Date of first issue: 05/02/2016

exposure if swallowed.

Protection of first-aiders : First Aid responders should pay attention to self-protection,

and use the recommended personal protective equipment when the potential for exposure exists (see section 8).

Notes to physician : Treat symptomatically and supportively.

### **SECTION 5. FIRE-FIGHTING MEASURES**

Suitable extinguishing media : Water spray

Alcohol-resistant foam Carbon dioxide (CO2)

Dry chemical None known.

Unsuitable extinguishing

media

Specific hazards during fire

fighting

Hazardous combustion prod-

ucts

: Carbon oxides

Specific extinguishing meth-

ods

Use extinguishing measures that are appropriate to local cir-

Exposure to combustion products may be a hazard to health.

cumstances and the surrounding environment. Use water spray to cool unopened containers.

Remove undamaged containers from fire area if it is safe to do

SO.

Evacuate area.

Special protective equipment :

for fire-fighters

In the event of fire, wear self-contained breathing apparatus.

Use personal protective equipment.

### **SECTION 6. ACCIDENTAL RELEASE MEASURES**

Personal precautions, protec: :

tive equipment and emer-

gency procedures

Use personal protective equipment.

Follow safe handling advice (see section 7) and personal protective equipment recommendations (see section 8).

Environmental precautions : Avoid release to the environment.

Prevent further leakage or spillage if safe to do so.

Prevent spreading over a wide area (e.g., by containment or

oil barriers).

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

Soak up with inert absorbent material.

For large spills, provide diking or other appropriate

containment to keep material from spreading. If diked material can be pumped, store recovered material in appropriate

container.

Clean up remaining materials from spill with suitable

absorbent.

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

according to the Hazardous Products Regulations



## **Imidocarb Injection Formulation**

Version Revision Date: SDS Number: Date of last issue: 04/04/2023 2.11 09/30/2023 632240-00017 Date of first issue: 05/02/2016

certain local or national requirements.

#### **SECTION 7. HANDLING AND STORAGE**

Technical measures : See Engineering measures under EXPOSURE

CONTROLS/PERSONAL PROTECTION section.

Local/Total ventilation : Use only with adequate ventilation.

Advice on safe handling : Do not breathe mist or vapors.

Do not swallow.

Avoid contact with eyes.

Avoid prolonged or repeated contact with skin.

Wash skin thoroughly after handling.

Handle in accordance with good industrial hygiene and safety practice, based on the results of the workplace exposure

assessment

Do not eat, drink or smoke when using this product.

Take care to prevent spills, waste and minimize release to the

environment.

Conditions for safe storage : Keep in properly labeled containers.

Store locked up.

Store in accordance with the particular national regulations.

Materials to avoid : Do not store with the following product types:

Strong oxidizing agents

Self-reactive substances and mixtures

Organic peroxides

Explosives Gases

#### **SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

### Ingredients with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Imidocarb	27885-92-3	TWA	40 μg/m3 (OEB 3)	Internal
		Wipe limit	400 μg/100 cm <sup>2</sup>	Internal
Propionic acid	79-09-4	TWA	10 ppm 30 mg/m³	CA AB OEL
		TWA	10 ppm	CA BC OEL
		TWAEV	10 ppm	CA QC OEL
			30 mg/m <sup>3</sup>	
		TWA	10 ppm	ACGIH

**Engineering measures**: Use appropriate engineering controls and manufacturing

technologies to control airborne concentrations (e.g., drip-

less quick connections).

All engineering controls should be implemented by facility design and operated in accordance with GMP principles to

protect products, workers, and the environment.

Containment technologies suitable for controlling compounds

according to the Hazardous Products Regulations



# **Imidocarb Injection Formulation**

Version Revision Date: SDS Number: Date of last issue: 04/04/2023 09/30/2023 632240-00017 Date of first issue: 05/02/2016 2.11

are required to control at source and to prevent migration of

the compound to uncontrolled areas (e.g., open-face

containment devices). Minimize open handling.

Personal protective equipment

Respiratory protection If adequate local exhaust ventilation is not available or

exposure assessment demonstrates exposures outside the

recommended guidelines, use respiratory protection.

Filter type

Hand protection

Combined particulates and organic vapor type

Material Chemical-resistant gloves

Remarks Consider double gloving.

Eye protection Wear safety glasses with side shields or goggles.

If the work environment or activity involves dusty conditions,

mists or aerosols, wear the appropriate goggles.

Wear a faceshield or other full face protection if there is a potential for direct contact to the face with dusts, mists, or

aerosols.

Skin and body protection Work uniform or laboratory coat.

> Additional body garments should be used based upon the task being performed (e.g., sleevelets, apron, gauntlets,

disposable suits) to avoid exposed skin surfaces.

Use appropriate degowning techniques to remove potentially

contaminated clothing.

If exposure to chemical is likely during typical use, provide Hygiene measures

eye flushing systems and safety showers close to the

working place.

When using do not eat, drink or smoke. Wash contaminated clothing before re-use.

The effective operation of a facility should include review of engineering controls, proper personal protective equipment, appropriate degowning and decontamination procedures, industrial hygiene monitoring, medical surveillance and the

use of administrative controls.

### **SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

Appearance liquid

Color clear

Odor No data available

Odor Threshold No data available

pΗ 4.5

Melting point/freezing point 100 °C

Initial boiling point and boiling

range

No data available

according to the Hazardous Products Regulations



# **Imidocarb Injection Formulation**

Version **Revision Date:** SDS Number: Date of last issue: 04/04/2023 09/30/2023 632240-00017 Date of first issue: 05/02/2016 2.11

Flash point No data available

Evaporation rate No data available

Flammability (solid, gas) Not applicable

Flammability (liquids) 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

No data available Density

Solubility(ies)

Water solubility soluble

Partition coefficient: n-

octanol/water

No data available

Autoignition temperature No data available

No data available Decomposition temperature

Viscosity

No data available Viscosity, kinematic

Explosive properties Not explosive

Oxidizing properties The substance or mixture is not classified as oxidizing.

Molecular weight No data available

No data available Particle size

#### **SECTION 10. STABILITY AND REACTIVITY**

Reactivity Not classified as a reactivity hazard. Chemical stability Stable under normal conditions. Possibility of hazardous reac-Can react with strong oxidizing agents.

Conditions to avoid None known. Incompatible materials Oxidizing agents

Hazardous decomposition

products

No hazardous decomposition products are known.

according to the Hazardous Products Regulations



# **Imidocarb Injection Formulation**

Version 2.11

Revision Date: 09/30/2023

SDS Number: 632240-00017

Date of last issue: 04/04/2023 Date of first issue: 05/02/2016

#### **SECTION 11. TOXICOLOGICAL INFORMATION**

Information on likely routes of exposure

Inhalation Skin contact Ingestion Eye contact

**Acute toxicity** 

Not classified based on available information.

**Product:** 

Acute oral toxicity : Acute toxicity estimate: > 2,000 mg/kg

Method: Calculation method

Acute dermal toxicity : Acute toxicity estimate: > 2,000 mg/kg

Method: Calculation method

**Components:** 

Imidocarb:

Acute oral toxicity : LD50 (Rat): 1,216 - 1,652 mg/kg

LD50 (Mouse): 544 - 702 mg/kg

LD50 (Rabbit): 317 mg/kg

Acute inhalation toxicity : Remarks: No data available

Acute dermal toxicity : Remarks: No data available

Acute toxicity (other routes of :

administration)

LD50 (Rat): 32.7 mg/kg

Application Route: Intravenous

LD50 (Mouse): 22.3 mg/kg Application Route: Intravenous

Propionic acid:

Acute inhalation toxicity : LC50 (Rat): > 20 mg/l

Exposure time: 4 h
Test atmosphere: vapor

Acute dermal toxicity : LD50 (Rat, female): 3,235 mg/kg

Skin corrosion/irritation

Not classified based on available information.

**Components:** 

Imidocarb:

Remarks : No data available

according to the Hazardous Products Regulations



# **Imidocarb Injection Formulation**

Version Revision Date: SDS Number: Date of last issue: 04/04/2023 2.11 09/30/2023 632240-00017 Date of first issue: 05/02/2016

Propionic acid:

Species : Rabbit

Result : Corrosive after 3 minutes to 1 hour of exposure

Serious eye damage/eye irritation

Not classified based on available information.

**Components:** 

Imidocarb:

Remarks : No data available

Propionic acid:

Species : Rabbit

Result : Irreversible effects on the eye

Respiratory or skin sensitization

Skin sensitization

Not classified based on available information.

Respiratory sensitization

Not classified based on available information.

**Components:** 

Imidocarb:

Remarks : No data available

Propionic acid:

Test Type : Maximization Test
Routes of exposure : Skin contact
Species : Guinea pig
Result : negative

Remarks : Based on data from similar materials

Germ cell mutagenicity

Not classified based on available information.

**Components:** 

Imidocarb:

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)

Result: negative

Test Type: In vitro mammalian cell gene mutation test

Result: negative

Test Type: Chromosome aberration test in vitro

Result: equivocal

Genotoxicity in vivo : Test Type: Mammalian erythrocyte micronucleus test (in vivo

according to the Hazardous Products Regulations



# **Imidocarb Injection Formulation**

Version Revision Date: SDS Number: Date of last issue: 04/04/2023 2.11 09/30/2023 632240-00017 Date of first issue: 05/02/2016

cytogenetic assay) Species: Rat

**Application Route: Oral** 

Result: negative

Test Type: Mammalian erythrocyte micronucleus test (in vivo

cytogenetic assay) Species: Mouse Application Route: Oral

Result: negative

Propionic acid:

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)

Method: OECD Test Guideline 471

Result: negative

Test Type: In vitro sister chromatid exchange assay in mam-

malian cells Result: negative

Genotoxicity in vivo : Test Type: Mammalian erythrocyte micronucleus test (in vivo

cytogenetic assay) Species: Hamster

Application Route: Intraperitoneal injection

Result: negative

### Carcinogenicity

Not classified based on available information.

## **Components:**

### Imidocarb:

Species : Rat
Application Route : Oral
Exposure time : 104 weeks

LOAEL : 240 mg/kg body weight

Result : negative

Target Organs : Mammary gland

Remarks : The mechanism or mode of action may not be relevant in hu-

mans.

Propionic acid:

Species : Rat
Application Route : Ingestion
Exposure time : 2 Years
Result : negative

#### Reproductive toxicity

Suspected of damaging the unborn child.

according to the Hazardous Products Regulations



# **Imidocarb Injection Formulation**

Version Revision Date: SDS Number: Date of last issue: 04/04/2023 2.11 09/30/2023 632240-00017 Date of first issue: 05/02/2016

**Components:** 

Imidocarb:

Effects on fertility : Test Type: Two-generation reproduction toxicity study

Species: Rat

Application Route: Oral

Fertility: LOAEL: 135 mg/kg body weight

Result: Adverse neonatal effects.

Test Type: Two-generation reproduction toxicity study

Species: Rat

Application Route: Oral

Fertility: NOAEL: 45 mg/kg body weight

Effects on fetal development : Test Type: Embryo-fetal development

Species: Rat

Application Route: Oral

Developmental Toxicity: LOAEL: 76 mg/kg body weight Result: Effects on fetal development., No teratogenic effects.

Test Type: Embryo-fetal development

Species: Rat

**Application Route: Oral** 

Developmental Toxicity: NOAEL: 19 mg/kg body weight

Test Type: Embryo-fetal development

Species: Rabbit Application Route: Oral

Developmental Toxicity: NOAEL: 20 mg/kg body weight

Result: No effects on fetal development.

Reproductive toxicity - As-

sessment

Some evidence of adverse effects on development, based on

animal experiments.

Propionic acid:

Effects on fetal development : Test Type: Embryo-fetal development

Species: Rat

Application Route: Ingestion

Result: negative

Remarks: Based on data from similar materials

STOT-single exposure

Causes damage to organs (Central nervous system) if swallowed.

Components:

Imidocarb:

Target Organs : Central nervous system
Assessment : Causes damage to organs.

Propionic acid:

Assessment : May cause respiratory irritation.

according to the Hazardous Products Regulations



# **Imidocarb Injection Formulation**

Version Revision Date: SDS Number: Date of last issue: 04/04/2023 2.11 09/30/2023 632240-00017 Date of first issue: 05/02/2016

#### STOT-repeated exposure

Causes damage to organs (Liver, Kidney) through prolonged or repeated exposure if swallowed.

#### Components:

### Imidocarb:

Target Organs : Liver, Kidney

Assessment : Causes damage to organs through prolonged or repeated

exposure.

Propionic acid:

Assessment : No significant health effects observed in animals at concentra-

tions of 200 mg/kg bw or less.

### Repeated dose toxicity

### **Components:**

## Imidocarb:

Species : Rat

LOAEL : 125 mg/kg
Application Route : Oral
Exposure time : 90 Days
Target Organs : Liver

Species : Rat
NOAEL : 76 mg/kg
LOAEL : 415 mg/kg
Application Route : Oral
Exposure time : 90 Days
Target Organs : Liver

Species : Dog
LOAEL : 5 mg/kg
Application Route : Oral
Exposure time : 90 Days
Target Organs : Liver, Kidney

Symptoms : muscle twitching, Salivation, recumbency, ataxia, splayed legs

Species: RatNOAEL: 15 mg/kgLOAEL: 60 mg/kgApplication Route: Oral

Exposure time : 104 Weeks

Target Organs : Liver, Kidney, Blood

Species : Monkey
NOAEL : 5 mg/kg
Application Route : Oral
Exposure time : 30 Days

Remarks : No significant adverse effects were reported

according to the Hazardous Products Regulations



# **Imidocarb Injection Formulation**

Version Revision Date: SDS Number: Date of last issue: 04/04/2023 2.11 09/30/2023 632240-00017 Date of first issue: 05/02/2016

Propionic acid:

Species : Dog

NOAEL : 733.4 mg/kg
Application Route : Ingestion
Exposure time : 90 Days

Method : OECD Test Guideline 409

Species : Mouse, female LOAEL : 136.9 mg/kg
Application Route : Skin contact Exposure time : 90 Days

**Aspiration toxicity** 

Not classified based on available information.

**Experience with human exposure** 

**Components:** 

Imidocarb:

Inhalation : Target Organs: Central nervous system

Symptoms: Salivation, muscle twitching, Tremors, Lachry-

mation, ataxia, lethargy

Remarks: Based on Animal Evidence

### **SECTION 12. ECOLOGICAL INFORMATION**

### **Ecotoxicity**

### **Components:**

Propionic acid:

Toxicity to fish : LC50 (Leuciscus idus (Golden orfe)): > 100 mg/l

Exposure time: 96 h Method: DIN 38412

Remarks: Based on data from similar materials

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia magna (Water flea)): > 100 mg/l

Exposure time: 48 h

Method: Directive 67/548/EEC, Annex V, C.2. Remarks: Based on data from similar materials

Toxicity to algae/aquatic

plants

EbC50 (Desmodesmus subspicatus (green algae)): > 100

mg/l

Exposure time: 72 h

Method: OECD Test Guideline 201

Remarks: Based on data from similar materials

Toxicity to microorganisms : EC10 (Pseudomonas putida): 44.6 mg/l

Exposure time: 17 h

Method: DIN 38 412 Part 8

according to the Hazardous Products Regulations



# **Imidocarb Injection Formulation**

Version Revision Date: SDS Number: Date of last issue: 04/04/2023 2.11 09/30/2023 632240-00017 Date of first issue: 05/02/2016

### Persistence and degradability

**Components:** 

Propionic acid:

Biodegradability : Result: Readily biodegradable.

Biodegradation: 74 % Exposure time: 30 d

Bioaccumulative potential

**Components:** 

Imidocarb:

Partition coefficient: n-

: log Pow: 3.88

octanol/water

Propionic acid:

Partition coefficient: n-

octanol/water

: log Pow: 0.33

Mobility in soil
No data available

Other adverse effects

No data available

#### **SECTION 13. DISPOSAL CONSIDERATIONS**

**Disposal methods** 

Waste from residues : Do not dispose of waste into sewer.

Dispose of in accordance with local regulations.

Contaminated packaging : Empty containers should be taken to an approved waste

handling site for recycling or disposal.

If not otherwise specified: Dispose of as unused product.

### **SECTION 14. TRANSPORT INFORMATION**

#### International Regulations

**UNRTDG** 

Not regulated as a dangerous good

**IATA-DGR** 

Not regulated as a dangerous good

**IMDG-Code** 

Not regulated as a dangerous good

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

Not applicable for product as supplied.

**Domestic regulation** 

**TDG** 

according to the Hazardous Products Regulations



# **Imidocarb Injection Formulation**

Version Revision Date: SDS Number: Date of last issue: 04/04/2023 2.11 09/30/2023 632240-00017 Date of first issue: 05/02/2016

Not regulated as a dangerous good

Special precautions for user

Not applicable

#### **SECTION 15. REGULATORY INFORMATION**

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

AICS : not determined

DSL : not determined

IECSC : not determined

#### **SECTION 16. OTHER INFORMATION**

#### Full text of other abbreviations

ACGIH : USA. ACGIH Threshold Limit Values (TLV)

CA AB OEL : Canada. Alberta, Occupational Health and Safety Code (table

2: OEL)

CA BC OEL : Canada. British Columbia OEL

CA QC OEL : Québec. Regulation respecting occupational health and safe-

ty, Schedule 1, Part 1: Permissible exposure values for air-

borne contaminants

ACGIH / TWA : 8-hour, time-weighted average CA AB OEL / TWA : 8-hour Occupational exposure limit CA BC OEL / TWA : 8-hour time weighted average

CA QC OEL / TWAEV : Time-weighted average exposure value

AIIC - Australian Inventory of Industrial Chemicals; 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; 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 Substanc-

according to the Hazardous Products Regulations



# **Imidocarb Injection Formulation**

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 04/04/2023

 2.11
 09/30/2023
 632240-00017
 Date of first issue: 05/02/2016

es; (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; 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; WHMIS - Workplace Hazardous Materials Information System

Sources of key data used to

compile the Material Safety

**Data Sheet** 

Internal technical data, data from raw material SDSs, OECD eChem Portal search results and European Chemicals Agen-

cy, http://echa.europa.eu/

Revision Date : 09/30/2023 Date format : mm/dd/yyyy

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 is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and shall not be considered a warranty or quality specification of any type. The information provided relates only to the specific material identified at the top of this SDS and may not be valid when the SDS material is used in combination with any other materials or in any process, unless specified in the text. Material users should review the information and recommendations in the specific context of their intended manner of handling, use, processing and storage, including an assessment of the appropriateness of the SDS material in the user's end product, if applicable.

CA / Z8