

# **Selenium Solid Formulation**

Version SDS Number: Date of last issue: 2023/11/22 Revision Date: 11093388-00007 5.0 2024/09/28 Date of first issue: 2022/11/21

#### 1. PRODUCT AND COMPANY IDENTIFICATION

Chemical product name Selenium Solid Formulation

Other means of identification Coopers Permatrace 3 Year Selenium Pellets for Sheep

(47639)

Supplier's company name, address and phone number

Company name of supplier **MSD** 

Kumagaya, Saitama Prefecture, Xicheng 810 MSD Co., Ltd. Address

Menuma factory

Telephone 048-588-8411

E-mail address EHSDATASTEWARD@msd.com

Emergency telephone number: +1-908-423-6000

Recommended use of the chemical and restrictions on use

Recommended use Veterinary product Restrictions on use Not applicable

### 2. HAZARDS IDENTIFICATION

#### GHS classification of chemical product

Not a hazardous substance or mixture according to the Globally Harmonised System (GHS).

### **GHS** label elements

No hazard pictogram, no signal word, no hazard statement(s), no precautionary statement(s) required.

### Other hazards which do not result in classification

Important symptoms and out: : lines of the emergency as-

sumed

Dust contact with the eyes can lead to mechanical irritation. Contact with dust can cause mechanical irritation or drying of

the skin.

May form explosive dust-air mixture during processing, han-

dling or other means.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture Mixture

Components

Chemical name CAS-No. Concentration (% w/w) ENCS No.



# **Selenium Solid Formulation**

Date of last issue: 2023/11/22 Version Revision Date: SDS Number: 5.0 2024/09/28 11093388-00007 Date of first issue: 2022/11/21

Iron	7439-89-6	>= 90 - <= 100	-
Selenium	7782-49-2	5	-

4. FIRST AID MEASURES

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

vice immediately.

When symptoms persist or in all cases of doubt seek medical

advice.

If inhaled If inhaled, remove to fresh air.

Get medical attention if symptoms occur.

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

of water.

Get medical attention if symptoms occur.

If in eyes, rinse well with water. In case of eye contact

Get medical attention if irritation develops and persists.

If swallowed, DO NOT induce vomiting. If swallowed

Get medical attention if symptoms occur. Rinse mouth thoroughly with water.

Most important symptoms Contact with dust can cause mechanical irritation or drying of

and effects, both acute and

delayed

the skin.

Dust contact with the eyes can lead to mechanical irritation. 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).

Treat symptomatically and supportively. Notes to physician

### 5. FIREFIGHTING MEASURES

Suitable extinguishing media Water spray

> Alcohol-resistant foam Carbon dioxide (CO2)

Dry chemical

Unsuitable extinguishing

media

None known.

Specific hazards during fire-

fighting

Exposure to combustion products may be a hazard to health.

Hazardous combustion prod: :

ucts

Metal oxides

Specific extinguishing meth-

ods

Use extinguishing measures that are appropriate to local cir-

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.





Version Revision Date: SDS Number: Date of last issue: 2023/11/22 5.0 2024/09/28 11093388-00007 Date of first issue: 2022/11/21

Special protective equipment:

for firefighters

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

Use personal protective equipment.

#### 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Use personal protective equipment.

Follow safe handling advice (see section 7) and personal pro-

tective equipment recommendations (see section 8).

Environmental precautions

Avoid release to the environment.

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.

Avoid dispersal of dust in the air (i.e., clearing dust surfaces

with compressed air).

Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration. 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 deter-

mine which regulations are applicable.

Sections 13 and 15 of this SDS provide information regarding

certain local or national requirements.

#### 7. HANDLING AND STORAGE

### Handling

Technical measures : Static electricity may accumulate and ignite suspended dust

causing an explosion.

Provide adequate precautions, such as electrical grounding

and bonding, or inert atmospheres.

Local/Total ventilation Advice on safe handling Use only with adequate ventilation.

: Do not breathe dust, fume, gas, mist, vapours or spray.

Do not swallow.

Avoid contact with eyes.

Avoid prolonged or repeated contact with skin.

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

sessment

Minimize dust generation and accumulation. Keep container closed when not in use. Keep away from heat and sources of ignition.

Take precautionary measures against static discharges. Take care to prevent spills, waste and minimize release to the



# **Selenium Solid Formulation**

Version Revision Date: SDS Number: Date of last issue: 2023/11/22 5.0 2024/09/28 11093388-00007 Date of first issue: 2022/11/21

environment.

Avoidance of contact

Oxidizing agents

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

**Storage** 

Conditions for safe storage : Keep in properly labelled containers.

Store in accordance with the particular national regulations.

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

Strong oxidizing agents

Packaging material : Unsuitable material: None known.

#### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

# Threshold limit value and permissible exposure limits for each component in the work environment

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Concentration standard / Permissible concentration	Basis
Iron	7439-89-6	ACL (Dust)	3 mg/m3 /(1.19Q+1)	JP OEL ISHL
Selenium	7782-49-2	OEL-M	0.1 mg/m3 (selenium)	JP OEL JSOH
		8h-OEL-M	0.02 mg/m3	JP ISHL OEL 577-2(2)
		TWA	20 μg/m3 (OEB 3)	Internal
		Wipe limit	200 μg/100 cm2	Internal
		TWA	0.2 mg/m3 (selenium)	ACGIH

**Engineering measures** : 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 are required to control at source and to prevent migration of the compound to uncontrolled areas (e.g., open-face con-

tainment devices).

Minimize open handling.

Personal protective equipment



# **Selenium Solid Formulation**

Version Date of last issue: 2023/11/22 Revision Date: SDS Number: 5.0 2024/09/28 11093388-00007 Date of first issue: 2022/11/21

If adequate local exhaust ventilation is not available or expo-Respiratory protection

sure assessment demonstrates exposures outside the rec-

ommended guidelines, use respiratory protection.

Filter type Hand protection Particulates type

Chemical-resistant gloves Ш Material

Remarks Consider double gloving.

Wear safety glasses with side shields or goggles. Eye protection

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.

Work uniform or laboratory coat. Skin and body protection

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

posable suits) to avoid exposed skin surfaces.

Use appropriate degowning techniques to remove potentially

contaminated clothing.

# 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state pellets

Colour silver

grey

Odour No data available

Odour Threshold No data available

Melting point/freezing point No data available

Boiling point, initial boiling

point and boiling range

No data available

May form explosive dust-air mixture during processing, han-Flammability (solid, gas)

dling or other means.

Flammability (liquids) Not applicable

Lower explosion limit and upper explosion limit / flammability limit

Upper explosion limit / Up- : No data available

per flammability limit

Lower explosion limit / Lower flammability limit No data available

Flash point Not applicable



# **Selenium Solid Formulation**

Version SDS Number: Date of last issue: 2023/11/22 Revision Date: 5.0 2024/09/28 11093388-00007 Date of first issue: 2022/11/21

Decomposition temperature No data available

Hq No data available

Evaporation rate Not applicable

Auto-ignition temperature No data available

Viscosity

Viscosity, kinematic Not applicable

Solubility(ies)

No data available Water solubility

Partition coefficient: n-

octanol/water

Not applicable

Not applicable Vapour pressure

Density and / or relative density

Relative density No data available

Density No data available

Relative vapour density Not applicable

Explosive properties Not explosive

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

Molecular weight No data available

Particle characteristics

Particle size No data available

# 10. STABILITY AND REACTIVITY

Not classified as a reactivity hazard. Reactivity Stable under normal conditions. Chemical stability

Possibility of hazardous reac-

tions

May form explosive dust-air mixture during processing, han-

dling or other means.

Can react with strong oxidizing agents.

Conditions to avoid Heat, flames and sparks.

Avoid dust formation.

Incompatible materials Oxidizing agents

Hazardous decomposition

products

No hazardous decomposition products are known.

### 11. TOXICOLOGICAL INFORMATION



# **Selenium Solid Formulation**

Version Revision Date: SDS Number: Date of last issue: 2023/11/22 5.0 2024/09/28 11093388-00007 Date of first issue: 2022/11/21

Information on likely routes of : Inhalation

exposure

Skin contact Ingestion Eye contact

# **Acute toxicity**

Not classified based on available information.

## Components:

Iron:

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg

Acute inhalation toxicity : LC50 (Rat): > 0.15 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist

Assessment: The substance or mixture has no acute inhala-

tion toxicity

Selenium:

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg

Method: OECD Test Guideline 401

Acute inhalation toxicity : LC50 (Rat): > 5.67 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist Method: OPPTS 870.1300

# Skin corrosion/irritation

Not classified based on available information.

# **Components:**

Iron:

Species : Rabbit

Method : OECD Test Guideline 404

Result : No skin irritation

### Serious eye damage/eye irritation

Not classified based on available information.

### **Components:**

Iron:

Species : Rabbit

Result : No eye irritation

Method : OECD Test Guideline 405



# **Selenium Solid Formulation**

Version Revision Date: SDS Number: Date of last issue: 2023/11/22 5.0 2024/09/28 11093388-00007 Date of first issue: 2022/11/21

### Respiratory or skin sensitisation

#### Skin sensitisation

Not classified based on available information.

# Respiratory sensitisation

Not classified based on available information.

#### **Components:**

#### Iron:

Exposure routes : Skin contact Species : Guinea pig Result : negative

#### Selenium:

Test Type : Local lymph node assay (LLNA)

Exposure routes : Skin contact

Species : Mouse

Method : OECD Test Guideline 429

Result : negative

Remarks : Based on data from similar materials

### Germ cell mutagenicity

Not classified based on available information.

### **Components:**

#### Iron:

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

Result: negative

# Selenium:

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

Method: OECD Test Guideline 471

Result: negative

### Carcinogenicity

Not classified based on available information.

### Reproductive toxicity

Not classified based on available information.

# **Components:**

### Selenium:

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

Species: Rat

Application Route: Ingestion

Result: negative

Remarks: Based on data from similar materials



# **Selenium Solid Formulation**

Version Date of last issue: 2023/11/22 Revision Date: SDS Number: 5.0 2024/09/28 11093388-00007 Date of first issue: 2022/11/21

Effects on foetal develop-: Test Type: Embryo-foetal development

Species: Mouse ment

Application Route: Ingestion

Result: negative

Remarks: Based on data from similar materials

STOT - single exposure

Not classified based on available information.

STOT - repeated exposure

Not classified based on available information.

**Components:** 

Iron:

Exposure routes : inhalation (dust/mist/fume)

Assessment No significant health effects observed in animals at concentra-

tions of 0.2 mg/l/6h/d or less.

Selenium:

Assessment May cause damage to organs through prolonged or repeated

exposure.

Remarks Based on national or regional regulation.

Repeated dose toxicity

**Components:** 

Iron:

Species Rat NOAEL 5 mg/m3

Application Route : inhalation (dust/mist/fume)

Exposure time 28 Days

**Aspiration toxicity** 

Not classified based on available information.

12. ECOLOGICAL INFORMATION

**Ecotoxicity** 

**Components:** 

Iron:

: LC50 (Danio rerio (zebra fish)): > 50,000 mg/l Toxicity to fish

Exposure time: 96 h

Toxicity to daphnia and other : EC50 (Daphnia magna (Water flea)): > 100 mg/l

aquatic invertebrates Exposure time: 48 h



# **Selenium Solid Formulation**

Version Revision Date: SDS Number: Date of last issue: 2023/11/22 5.0 2024/09/28 11093388-00007 Date of first issue: 2022/11/21

Method: OECD Test Guideline 202

Toxicity to microorganisms : EC50: 10,000 mg/l

Exposure time: 3 h

Selenium:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): > 0.0262 mg/l

Exposure time: 96 h

Test substance: Water Accommodated Fraction

Method: OECD Test Guideline 203

Remarks: No toxicity at the limit of solubility

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia magna (Water flea)): > 0.1603 mg/l

Exposure time: 48 h

Test substance: Water Accommodated Fraction

Method: OECD Test Guideline 202

Remarks: No toxicity at the limit of solubility

Toxicity to algae/aquatic

plants

ErC50 (Pseudokirchneriella subcapitata (algae)): > 0.00173

mg/l

Exposure time: 72 h

Test substance: Water Accommodated Fraction

Method: OECD Test Guideline 201

Toxicity to fish (Chronic tox-

icity)

NOEC (Oncorhynchus mykiss (rainbow trout)): >= 0.00157

mg/l

Exposure time: 28 d

Test substance: Water Accommodated Fraction Remarks: No toxicity at the limit of solubility

Toxicity to daphnia and other :

aquatic invertebrates (Chron-

ic toxicity)

NOEC (Daphnia magna (Water flea)): >= 0.00342 mg/l

Exposure time: 21 d

Test substance: Water Accommodated Fraction

Method: OECD Test Guideline 211

Remarks: No toxicity at the limit of solubility

Toxicity to microorganisms : EC50 (activated sludge): > 100 mg/l

Exposure time: 3 h

Method: OECD Test Guideline 209

Remarks: Based on data from similar materials

**Ecotoxicology Assessment** 

Chronic aquatic toxicity : May cause long lasting harmful effects to aquatic life.

Remarks: Based on national or regional regulation.

Persistence and degradability

No data available

**Bioaccumulative potential** 

No data available



# **Selenium Solid Formulation**

Version Date of last issue: 2023/11/22 Revision Date: SDS Number: 5.0 2024/09/28 11093388-00007 Date of first issue: 2022/11/21

# Mobility in soil

No data available

# Hazardous to the ozone layer

Not applicable

### Other adverse effects

No data available

#### 13. DISPOSAL CONSIDERATIONS

**Disposal methods** 

Waste from residues Dispose of in accordance with local regulations.

Do not dispose of waste into sewer.

Contaminated packaging Empty containers should be taken to an approved waste han-

dling site for recycling or disposal.

If not otherwise specified: Dispose of as unused product.

#### 14. TRANSPORT INFORMATION

# **International Regulations**

**UNRTDG** 

**UN** number Not applicable Proper shipping name Not applicable Not applicable Class Subsidiary risk Not applicable Packing group Not applicable Not applicable Labels

Environmentally hazardous no

IATA-DGR

UN/ID No. Not applicable Not applicable Proper shipping name Not applicable Class Subsidiary risk Not applicable Packing group Not applicable Labels Not applicable Not applicable

Packing instruction (cargo

aircraft)

Packing instruction (passen- : Not applicable

ger aircraft)

**IMDG-Code** 

UN number Not applicable Not applicable Proper shipping name Class Not applicable Subsidiary risk Not applicable Not applicable Packing group Not applicable Labels EmS Code Not applicable Marine pollutant Not applicable



# **Selenium Solid Formulation**

Version Revision Date: SDS Number: Date of last issue: 2023/11/22 5.0 2024/09/28 11093388-00007 Date of first issue: 2022/11/21

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

Not applicable for product as supplied.

# **National Regulations**

Refer to section 15 for specific national regulation.

# Special precautions for user

Not applicable

ERG Code : 171

#### 15. REGULATORY INFORMATION

# **Related Regulations**

#### **Fire Service Law**

Not applicable to dangerous materials / designated flammables.

### **Chemical Substance Control Law**

Not applicable for Specified Chemical Substance, Monitoring Chemical Substance and Priority Assessment Chemical Substance.

### **Industrial Safety and Health Law**

### **Harmful Substances Prohibited from Manufacture**

Not applicable

### **Harmful Substances Required Permission for Manufacture**

Not applicable

### **Substances Prevented From Impairment of Health**

Not applicable

# Circular concerning Information on Chemicals having Mutagenicity - Annex 2: Information on Existing Chemicals having Mutagenicity

Not applicable

# Circular concerning Information on Chemicals having Mutagenicity - Annex 1: Information on Notified Substances having Mutagenicity

Not applicable

# **Substances Subject to be Notified Names**

Article 57-2 (Enforcement Order Table 9)

Chemical name	Concentration (%)	Remarks
Selenium and its compounds	>=1 - <10	-

# Substances Subject to be Indicated Names

Article 57 (Enforcement Order Article 18)

Chemical name	Remarks
Selenium and its compounds	-

### Skin and Eye Damage Substances for PPE Requirements (ISHL MO Art. 594-2)

Not applicable



# **Selenium Solid Formulation**

Version Revision Date: SDS Number: Date of last issue: 2023/11/22 5.0 2024/09/28 11093388-00007 Date of first issue: 2022/11/21

Carcinogenic Substances (Article 577-2 of the Occupational Health and Safety Regulations)

Not applicable

Ordinance on Prevention of Hazards Due to Specified Chemical Substances

Not applicable

Ordinance on Prevention of Lead Poisoning

Not applicable

Ordinance on Prevention of Tetraalkyl Lead Poisoning

Not applicable

**Ordinance on Prevention of Organic Solvent Poisoning** 

Not applicable

Enforcement Order of the Industrial Safety and Health Law - Attached table 1 (Dangerous Substances)

Not applicable

**Poisonous and Deleterious Substances Control Law** 

Not applicable

Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof

# **Class I Designated Chemical Substances**

Chemical name	Administration number	Concentration (%)
Selenium compounds / selenium	242	5.0

### **High Pressure Gas Safety Act**

Not applicable

# **Explosive Control Law**

Not applicable

#### **Vessel Safety Law**

Not regulated as a dangerous good

#### **Aviation Law**

Not regulated as a dangerous good

# Marine Pollution and Sea Disaster Prevention etc Law

Bulk transportation : Not classified as noxious liquid substance

Pack transportation : Not classified as marine pollutant

# **Narcotics and Psychotropics Control Act**

Narcotic or Psychotropic Raw Material (Export / Import Permission)

Not applicable

Specific Narcotic or Psychotropic Raw Material (Export / Import permission)

Not applicable

### Waste Disposal and Public Cleansing Law

Industrial waste



# **Selenium Solid Formulation**

Version Revision Date: SDS Number: Date of last issue: 2023/11/22 5.0 2024/09/28 11093388-00007 Date of first issue: 2022/11/21

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

AICS : not determined

DSL : not determined

IECSC : not determined

#### 16. OTHER INFORMATION

In this SDS, if the concentration of substances subject to notification under the Industrial Safety and Health Law is indicated as a range, it includes cases where it is a trade secret.

#### **Further information**

Sources of key data used to compile the 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/

Items where changes have been made to the previous version are highlighted in the body of this document by two vertical lines.

Date format : yyyy/mm/dd

#### Full text of other abbreviations

ACGIH : USA. ACGIH Threshold Limit Values (TLV)

JP ISHL OEL 577-2(2) : Concentration standard (Value set by the Minister of Health,

Labour and Welfare stipulated under the Ministerial Ordinance

Article 577-2(2))

JP OEL ISHL : Japan. Administrative Control Levels

JP OEL JSOH : Japan Society for Occupational Health. Recom-

mendation of Occupational Exposure Limits

ACGIH / TWA : 8-hour, time-weighted average

JP ISHL OEL 577-2(2) / 8h- : 8-hour Occupational Exposure Limit-Mean

OEL-M

JP OEL ISHL / ACL : Administrative Control level

JP OEL JSOH / OEL-M : Occupational Exposure Limit-Mean

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 Con-



# **Selenium Solid Formulation**

Version Revision Date: SDS Number: Date of last issue: 2023/11/22 5.0 2024/09/28 11093388-00007 Date of first issue: 2022/11/21

centration 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; 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

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.

JP / EN