

SAFETY DATA SHEETS

This SDS packet was issued with item:

078924571

N/A

MATERIAL SAFETY DATA SHEET

SECTION I – PRODUCT INFORMATION

PRODUCT NAME: Fertagyl

OFFICIAL NAME: Fertagyl

PRODUCT TYPE: For the treatment of cystic ovaries, prevention of delayed ovulation and improvement of conception rate in the post partum period of cattle. Induction of ovulation in rabbits.

DIN #: 02057751

TRANSPORT CLASSIFICATION: N/A

FORMULATION: Aqueous Solution

MANUFACTURER/SUPPLIER: Intervet International BV
The Netherlands

TELEPHONE: 1-800-268-4257

EMERGENCY #: 1-800-345-4735 (only to be used after hours between 4:30pm - 8:30am)

FAX: 1-888-498-4444

SECTION II – INGREDIENT INFORMATION

| INGREDIENTS – COMMON NAME | CONTENT IN PRODUCT | CAS# |
|--|--------------------|---|
| Gonadorelin (Synthetic Gonadotrophin Releasing Hormone) | 0.1mg/mL | 33515 - 09 - 02: 34973 - 08 - 5: 52699 - 48 - 6 and 51952 - 41 - 1 |

SECTION III – PHYSICAL DATA

APPEARANCE AND ODOUR: A sterile aqueous solution for injection supplied in 10 x 5mL white capped vials.

SECTION IV - FIRE AND EXPLOSION DATA

FLAMMABILITY: N/A

FLASH POINT: N/A

EXPLOSION LIMITS: N/A

EMERGENCY FIRE MEASURES: None

CLASSIFICATION OF HAZARD: None

OTHER SPECIAL PROPERTIES: None

SECTION V – HEALTH HAZARD DATA

MAXIMUM EXPOSURE LIMIT: None given

OCCUPATIONAL EXPOSURE STANDARD: None given

GENERAL HAZARD ASSESSMENT: Used as a sterile injectable pharmaceutical in accordance with the data sheet, this product should not present any hazards.

MAMMALIAN: Gonadorelin is considered to be non-toxic.

ACUTE ORAL LD₅₀: Not known as it is inactivated in the gut.

ACUTE DERMAL LD₅₀: Not known

EYE IRRITANCY: Not known; unlikely to present a problem in eye.

SKIN IRRITANCY: Not known; unlikely to present a problem in skin.

SENSITIZATION: Not known to occur

OTHER SPECIAL PROPERTIES: None

SECTION V – HEALTH HAZARD DATA (CONT.)

FIRST AID PROCEDURES:

Prevent further contact.

NOTE TO PHYSICIAN: There is a low possibility that self injection could induce ovulation.

SECTION VI – REACTIVITY DATA

N/A

SECTION VII – SPILL OR LEAK PROCEDURE

STEPS TO BE TAKEN: Wash down with copious quantities of clean water. Gonadorelin is rapidly broken down by the action of micro organisms.

DISPOSAL METHODS:

Product: Mix with a combustible carrier and incinerate in an incinerator fitted with an after burner and scrubber.

Used Containers: As above.

SECTION VIII - SPECIAL PROTECTION INFORMATION

PROTECTIVE EQUIPMENT: None

SECTION IX - STORAGE AND HANDLING PRECAUTIONS

STORAGE AND HANDLING: Store in a cool dry place 6-15°C. Wash hands well after use.

PRECAUTIONS: Avoid self injection.

EMPLOYER: N/A

OPERATOR: Follow data sheet instructions and use normal aseptic technique.

SECTION X - ECOLOGICAL INFORMATION

WILDLIFE AND ENVIRONMENT:

Fish: No contact anticipated.

Birds: No contact anticipated.

Environmental Impact: No effects anticipated.

SECTION XI – TRANSPORTATION

CONDITIONS: In accordance with goods normally stored under refrigeration.

SECTION XII - ADDITIONAL INFORMATION

RELEVANT APPROVED CODES OF PRACTICE: The legal category of this product is POM.

FOR ANIMAL USE ONLY

**The information contained herein is true and accurate to the best of the knowledge of Intervet Canada Ltd.
However, all data, instructions and/or recommendations are made without guarantee.**

SIGNED: _____

DATE ISSUED: January 2, 2008

Gonadorelin Formulation

Version 2.2 Revision Date: 06/02/2017 SDS Number: 613544-00004 Date of last issue: 04/28/2017
 Date of first issue: 04/27/2016

P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response:

P308 + P313 IF exposed or concerned: Get medical advice/ attention.

Storage:

P405 Store locked up.

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

Hazardous ingredients

| Chemical name | CAS-No. | Concentration (% w/w) |
|----------------|------------|-----------------------|
| Benzyl alcohol | 100-51-6 | >= 1 -< 5 |
| Gonadorelin | 34973-08-5 | >= 0.001 -< 0.1 |

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.
- In case of eye contact : Flush eyes with water as a precaution.
 Get medical attention if irritation develops and persists.
- If swallowed : If swallowed, DO NOT induce vomiting.
 Get medical attention.
 Rinse mouth thoroughly with water.
- Most important symptoms and effects, both acute and delayed : Suspected of damaging fertility. Suspected of damaging the unborn child.
 Causes damage to organs through prolonged or repeated

Gonadorelin Formulation

| | | | |
|---------|----------------|--------------|---------------------------------|
| Version | Revision Date: | SDS Number: | Date of last issue: 04/28/2017 |
| 2.2 | 06/02/2017 | 613544-00004 | Date of first issue: 04/27/2016 |

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.

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

Unsuitable extinguishing media : None known.

Specific hazards during fire fighting : Exposure to combustion products may be a hazard to health.

Hazardous combustion products : Carbon oxides

Specific extinguishing methods : Use extinguishing measures that are appropriate to local circumstances 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, protective equipment and emergency procedures : Use personal protective equipment.
Follow safe handling advice and personal protective equipment recommendations.

Environmental precautions : Discharge into the environment must be avoided.
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.

Gonadorelin Formulation

Version 2.2 Revision Date: 06/02/2017 SDS Number: 613544-00004 Date of last issue: 04/28/2017
 Date of first issue: 04/27/2016

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 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 : Avoid inhalation of vapor or mist.
 Do not swallow.
 Avoid contact with eyes.
 Avoid prolonged or repeated contact with skin.
 Handle in accordance with good industrial hygiene and safety practice.
 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
 Organic peroxides
 Explosives
 Gases

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

| Ingredients | CAS-No. | Value type (Form of exposure) | Control parameters / Permissible concentration | Basis |
|----------------|------------|----------------------------------|--|---------|
| Benzyl alcohol | 100-51-6 | TWA | 10 ppm | US WEEL |
| Gonadorelin | 34973-08-5 | TWA | 0.2 µg/m ³ (OEB 5) | Merck |
| | | Wipe limit | 2 µg/100 cm ² | Merck |

- Engineering measures** : Ensure adequate ventilation, especially in confined areas.
 Minimize workplace exposure concentrations.

Personal protective equipment

- Respiratory protection : General and local exhaust ventilation is recommended to

Gonadorelin Formulation

| | | | |
|---------|----------------|--------------|---------------------------------|
| Version | Revision Date: | SDS Number: | Date of last issue: 04/28/2017 |
| 2.2 | 06/02/2017 | 613544-00004 | Date of first issue: 04/27/2016 |

maintain vapor exposures below recommended limits. Where concentrations are above recommended limits or are unknown, appropriate respiratory protection should be worn. Follow OSHA respirator regulations (29 CFR 1910.134) and use NIOSH/MSHA approved respirators. Protection provided by air purifying respirators against exposure to any hazardous chemical is limited. Use a positive pressure air supplied respirator if there is any potential for uncontrolled release, exposure levels are unknown, or any other circumstance where air purifying respirators may not provide adequate protection.

Hand protection

Material : Chemical-resistant gloves

Remarks : Choose gloves to protect hands against chemicals depending on the concentration specific to place of work. Breakthrough time is not determined for the product. Change gloves often! For special applications, we recommend clarifying the resistance to chemicals of the aforementioned protective gloves with the glove manufacturer. Wash hands before breaks and at the end of workday.

Eye protection : Wear the following personal protective equipment:
Safety glasses

Skin and body protection : Select appropriate protective clothing based on chemical resistance data and an assessment of the local exposure potential.
Skin contact must be avoided by using impervious protective clothing (gloves, aprons, boots, etc).

Hygiene measures : Ensure that eye flushing systems and safety showers are located close to the working place.
When using do not eat, drink or smoke.
Wash contaminated clothing before re-use.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : liquid

Color : No data available

Odor : No information available.

Odor Threshold : No data available

pH : No data available

Melting point/freezing point : No data available

Gonadorelin Formulation

Version Revision Date: SDS Number: Date of last issue: 04/28/2017
2.2 06/02/2017 613544-00004 Date of first issue: 04/27/2016

Initial boiling point and boiling range : No data available

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

Density : No data available

Solubility(ies)
 Water solubility : 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 : Not explosive

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

Molecular weight : Not applicable

Particle size : No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity : Not classified as a reactivity hazard.

Chemical stability : Stable under normal conditions.

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

Gonadorelin Formulation

| | | | |
|---------|----------------|--------------|---------------------------------|
| Version | Revision Date: | SDS Number: | Date of last issue: 04/28/2017 |
| 2.2 | 06/02/2017 | 613544-00004 | Date of first issue: 04/27/2016 |

Conditions to avoid : None known.

Incompatible materials : Oxidizing agents

Hazardous decomposition products : No hazardous decomposition products are known.

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: > 5,000 mg/kg
Method: Calculation method

Acute inhalation toxicity : Acute toxicity estimate: > 200 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: Calculation method

Ingredients:**Benzyl alcohol:**

Acute oral toxicity : LD50 (Rat): 1,620 mg/kg

Acute inhalation toxicity : LC50 (Rat): > 4.178 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: OECD Test Guideline 403

Gonadorelin:

Acute oral toxicity : LD50 (Rat): > 3,000 mg/kg
LD50 (Mouse): > 4,000 mg/kg

Acute inhalation toxicity : Remarks: No data available

Acute dermal toxicity : Remarks: No data available

Skin corrosion/irritation

Not classified based on available information.

Ingredients:**Benzyl alcohol:**

Gonadorelin Formulation

| | | | |
|---------|----------------|--------------|---------------------------------|
| Version | Revision Date: | SDS Number: | Date of last issue: 04/28/2017 |
| 2.2 | 06/02/2017 | 613544-00004 | Date of first issue: 04/27/2016 |

Application Route: Intraperitoneal injection

Result: negative

Gonadorelin:

- Genotoxicity in vitro
- : Test Type: Bacterial reverse mutation assay (AMES)
Result: negative
Remarks: Based on data from similar materials
 - : Test Type: In vitro mammalian cell gene mutation test
Result: negative
Remarks: Based on data from similar materials
 - : Test Type: Chromosome aberration test in vitro
Result: negative
Remarks: Based on data from similar materials
- Germ cell mutagenicity - Assessment
- : Weight of evidence does not support classification as a germ cell mutagen.

Carcinogenicity

Not classified based on available information.

Ingredients:

Benzyl alcohol:

Species: Mouse
Application Route: Ingestion
Exposure time: 103 weeks
Method: OECD Test Guideline 451
Result: negative

Gonadorelin:

Species: Mouse
Exposure time: 2 Years
LOAEL: 2.4 mg/kg body weight
Result: positive
Remarks: Based on data from similar materials

Species: Rat
Exposure time: 1 Years
LOAEL: 0.05 mg/kg body weight
Result: negative
Remarks: Benign tumor(s)
The mechanism or mode of action may not be relevant in humans.
Based on data from similar materials

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.

Gonadorelin Formulation

| | | | |
|---------|----------------|--------------|---------------------------------|
| Version | Revision Date: | SDS Number: | Date of last issue: 04/28/2017 |
| 2.2 | 06/02/2017 | 613544-00004 | Date of first issue: 04/27/2016 |

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

Suspected of damaging fertility. Suspected of damaging the unborn child.

Ingredients:

Benzyl alcohol:

Effects on fertility : Test Type: Fertility/early embryonic development
Species: Rat
Application Route: Ingestion
Result: negative
Remarks: Based on data from similar materials

Effects on fetal development : Test Type: Embryo-fetal development
Species: Mouse
Application Route: Ingestion
Result: negative

Gonadorelin:

Effects on fertility : Test Type: Fertility/early embryonic development
Species: Rat, female
Application Route: Subcutaneous
Fertility: LOAEL: 50 µg/kg
Result: Effects on fertility.
Remarks: Based on data from similar materials

Test Type: Fertility/early embryonic development
Species: Rat, male
Application Route: Subcutaneous
Fertility: LOAEL: 500 µg/kg
Result: Effects on fertility.
Remarks: Based on data from similar materials

Test Type: Fertility/early embryonic development
Species: Rabbit
Application Route: Subcutaneous
Fertility: LOAEL: 1,000 µg/kg
Result: Effects on fertility.

Test Type: Fertility/early embryonic development
Species: Dog, male and female
Application Route: Subcutaneous
Fertility: LOAEL: 107 - 214 µg/kg
Result: Effects on fertility.

Effects on fetal development : Test Type: Embryo-fetal development
Species: Rat
Application Route: Subcutaneous
Developmental Toxicity: LOAEL: >= 2 µg/kg
Result: Effects on fetal development.

Gonadorelin Formulation

| | | | |
|---------|----------------|--------------|---------------------------------|
| Version | Revision Date: | SDS Number: | Date of last issue: 04/28/2017 |
| 2.2 | 06/02/2017 | 613544-00004 | Date of first issue: 04/27/2016 |

Test Type: Embryo-fetal development
Species: Rabbit
Application Route: Subcutaneous
Developmental Toxicity: LOAEL: > 20 µg/kg
Result: Effects on fetal development.

Reproductive toxicity - Assessment : Some evidence of adverse effects on sexual function and fertility, based on animal experiments., Some evidence of adverse effects on development, based on animal experiments.

STOT-single exposure

Not classified based on available information.

STOT-repeated exposure

Causes damage to organs (Endocrine system) through prolonged or repeated exposure if swallowed.

Ingredients:

Gonadorelin:

Target Organs: Endocrine system

Assessment: Causes damage to organs through prolonged or repeated exposure.

Repeated dose toxicity

Ingredients:

Benzyl alcohol:

Species: Rat

NOAEL: 1.072 mg/l

Application Route: inhalation (dust/mist/fume)

Exposure time: 28 Days

Method: OECD Test Guideline 412

Gonadorelin:

Species: Rat

NOAEL: 0.12 mg/kg

Application Route: Intramuscular

Exposure time: 15 Days

Remarks: No significant adverse effects were reported

Species: Rat

NOAEL: 0.072 mg/kg

Application Route: Intravenous

Exposure time: 15 Days

Remarks: No significant adverse effects were reported

Species: Dog

NOAEL: 0.12 mg/kg

Application Route: Intramuscular

Exposure time: 15 Days

Remarks: No significant adverse effects were reported

Gonadorelin Formulation

Version 2.2 Revision Date: 06/02/2017 SDS Number: 613544-00004 Date of last issue: 04/28/2017
 Date of first issue: 04/27/2016

Bioaccumulative potential

Ingredients:

Benzyl alcohol:

Partition coefficient: n-octanol/water : log Pow: 1.05

Mobility in soil

No data available

Other adverse effects

No data available

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues : 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

49 CFR

Not regulated as a dangerous good

SECTION 15. REGULATORY INFORMATION

EPCRA - Emergency Planning and Community Right-to-Know

CERCLA Reportable Quantity

| Ingredients | CAS-No. | Component RQ (lbs) | Calculated product RQ (lbs) |
|-------------|---------|-----------------------|--------------------------------|
| Acetic acid | 64-19-7 | 5000 | * |

*: Calculated RQ exceeds reasonably attainable upper limit.

Gonadorelin Formulation

Version 2.2 Revision Date: 06/02/2017 SDS Number: 613544-00004 Date of last issue: 04/28/2017
 Date of first issue: 04/27/2016

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS 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 : Chronic Health Hazard

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.

US State Regulations

Pennsylvania Right To Know

Water 7732-18-5
 Benzyl alcohol 100-51-6

California Prop. 65

This product does not contain any chemicals known to the State of California to cause cancer, birth, or any other reproductive defects.

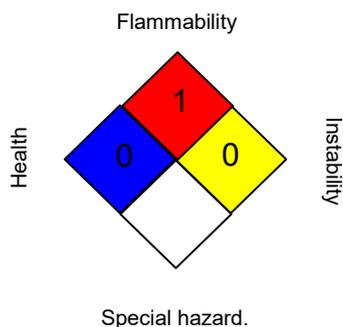
The ingredients of this product are reported in the following inventories:

AICS : not determined
 DSL : not determined
 IECSC : not determined

SECTION 16. OTHER INFORMATION

Further information

NFPA:



HMIS® IV:

| | | |
|------------------------|---|----------|
| HEALTH | * | 3 |
| FLAMMABILITY | | 1 |
| PHYSICAL HAZARD | | 0 |

HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. The "*" represents a chronic hazard, while the "/" represents the absence of a chronic hazard.

Full text of other abbreviations

US WEEL : USA. Workplace Environmental Exposure Levels (WEEL)

Gonadorelin Formulation

| | | | |
|---------|----------------|--------------|---------------------------------|
| Version | Revision Date: | SDS Number: | Date of last issue: 04/28/2017 |
| 2.2 | 06/02/2017 | 613544-00004 | Date of first issue: 04/27/2016 |

US WEEL / TWA : 8-hr TWA

AICS - Australian Inventory of Chemical Substances; 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; KECl - 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; 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

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 Agency, <http://echa.europa.eu/>

Revision Date : 06/02/2017

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

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.

US / Z8