

according to the Hazardous Products Regulations

Golimumab Formulation

| Version | Revision Date: | SDS Number: | Date of last issue: 09/29/2023 |
|---------|----------------|-------------|---------------------------------|
| 3.15 | 09/28/2024 | 26422-00027 | Date of first issue: 10/29/2014 |

SECTION 1. IDENTIFICATION

| Product name | : | Golimumab Formulation |
|-------------------------------|---|-----------------------|
| Other means of identification | : | No data available |

Manufacturer or supplier's details

| : | Merck & Co., Inc |
|---|---------------------------------|
| : | 126 E. Lincoln Avenue |
| | Rahway, New Jersey U.S.A. 07065 |
| : | 908-740-4000 |
| : | 1-908-423-6000 |
| : | EHSDATASTEWARD@merck.com |
| | : |

Recommended use of the chemical and restrictions on use

| Recommended use | : Pharmaceu | tical |
|---------------------|---------------|-------|
| Restrictions on use | : Not applica | ble |

SECTION 2. HAZARDS IDENTIFICATION

| GHS classification in accore | dan | ce with the Hazardous Products Regulations | |
|------------------------------|-----|--|--|
| Respiratory sensitization | : | Category 1 | |

CHS label elem

| GHS label elements Hazard pictograms | : | |
|---|---|--|
| Signal Word | : | Danger |
| Hazard Statements | : | H334 May cause allergy or asthma symptoms or breathing diffi- culties if inhaled. |
| Precautionary Statements | : | Prevention: P261 Avoid breathing mist or vapors. P284 Wear respiratory protection. |
| | | Response: P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing. P342 + P311 If experiencing respiratory symptoms: Call a doc- tor. |
| | | Disposal: P501 Dispose of contents and container to an approved waste disposal plant. |
| Other hazards | | |

None known.



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SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Components

| Chemical name | Common Name/Synonym | CAS-No. | Concentration (% w/w) |
|---------------|------------------------|-------------|-----------------------|
| Golimumab | No data availa- ble | 476181-74-5 | >= 10 - < 30 * |

* 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. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention. |
| In case of skin contact | : | Wash with water and soap as a precaution. Get medical attention if symptoms occur. |
| 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 if symptoms occur. Rinse mouth thoroughly with water. |
| Most important symptoms and effects, both acute and delayed | : | May cause allergy or asthma symptoms or breathing difficulties if inhaled. Excessive exposure may aggravate preexisting asthma and other respiratory disorders (e.g. emphysema, bronchitis, |
| Protection of first-aiders | : | reactive airways dysfunction syndrome). 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 |
|---------------------------------------|---|---|
| Unsuitable extinguishing media | : | None known. |
| Specific hazards during fire fighting | : | Exposure to combustion products may be a hazard to health. |
| Hazardous combustion prod- ucts | : | Carbon oxides Sulfur oxides |



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| | Specific ods | c extinguishing meth- | : | cumstances and t Use water spray to | measures that are appropriate to local cir- he surrounding environment. o cool unopened containers. ged containers from fire area if it is safe to do |
| | | l protective equipment fighters | : | In the event of fire Use personal prot | e, wear self-contained breathing apparatus. ective 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 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. |
| | | Handle in accordance with good industrial hygiene and safety |
| | | practice, based on the results of the workplace exposure |
| | | assessment |



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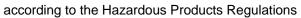
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| | | Already sensit to asthma, alle should consul respiratory irri | er tightly closed. ized individuals, and those susceptible ergies, chronic or recurrent respiratory disease, t their physician regarding working with tants or sensitizers. prevent spills, waste and minimize release to the |
| Conc | litions for safe storage | rly labeled containers. osed. dance with the particular national regulations. | |
| Mate | rials to avoid | | vith the following product types: |

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

| Ingredients with workplace | 00 | ntrol parameter | rs | | | | | |
|--|-----|--|---|---|----------|--|--|--|
| Components | | CAS-No. | Value type (Form of exposure) | Control parame- ters / Permissible concentration | Basis | | | |
| Golimumab | | 476181-74-5 | TŴA | 70 µg/m3 (OEB 3) | Internal | | | |
| Engineering measures | : | Ensure adequate ventilation, especially in confined areas. Minimize workplace exposure concentrations. | | | | | | |
| Personal protective equipm | ent | : | | | | | | |
| 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 | : | | Particulates type | | | | | |
| Material | : | Chemical-resi | Chemical-resistant gloves | | | | | |
| Remarks | : | on the concent time is not det For special ap resistance to o gloves with the | 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 follo Safety glasses | Wear the following personal protective equipment: | | | | | |
| Skin and body protection Hygiene measures | : | Skin should be If exposure to eye flushing s working place When using d | e washed after of chemical is likel ystems and safe | ly during typical use, ety showers close to t or smoke. | | | | |

Ingredients with workplace control parameters

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES





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|--------------|----------------------|---|---|-----------------------|---|
| | Appearance | | : | Aqueous solution | I |
| | Color | | : | opalescent | |
| | Odor | | : | No data available |) |
| | Odor TI | hreshold | : | No data available |) |
| | рН | | : | 5.5 | |
| | Melting | point/freezing point | : | No data available |) |
| | Initial be range | oiling point and boiling | : | No data available | |
| | Flash p | oint | : | No data available | 9 |
| | Evapor | ation rate | : | No data available | |
| | Flamma | ability (solid, gas) | : | Not applicable | |
| | Flamma | ability (liquids) | : | No data available | 9 |
| | | explosion limit / Upper bility limit | : | No data available | |
| | | explosion limit / Lower bility limit | : | No data available | |
| | Vapor p | pressure | : | No data available | 9 |
| | Relative | e vapor density | : | No data available | 9 |
| | Relative | e density | : | No data available | |
| | Solubili Wat | ty(ies) er solubility | : | soluble | |
| | Partition octanol | n coefficient: n- | : | No data available | |
| | | nition temperature | : | No data available | |
| | Decom | position temperature | : | No data available | |
| | Viscosi Visc | ty cosity, kinematic | : | No data available | 9 |
| | Explosi | ve properties | : | Not explosive | |
| | Oxidizir | ng properties | : | The substance of | r mixture is not classified as oxidizing. |
| | Molecu | lar weight | : | No data available | |

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| • | Particle characteris Particle size | stics : | No data available | 9 |
| SECT | ION 10. STABILI | TY AND REAC | CTIVITY | |
| C F t C I | Reactivity Chemical stability Possibility of hazar ions Conditions to avoid ncompatible mater lazardous decomporoducts | l : rials : | Stable under nor Can react with st None known. Oxidizing agents | rong oxidizing agents. |

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Inhalation Skin contact Ingestion Eye contact

Acute toxicity

Not classified based on available information.

Skin corrosion/irritation

Not classified based on available information.

Serious eye damage/eye irritation

Not classified based on available information.

Respiratory or skin sensitization

Skin sensitization

Not classified based on available information.

Respiratory sensitization

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

Components:

Golimumab:

| Routes of exposure | : | Inhalation |
|--------------------|---|--|
| Assessment | : | May cause sensitization by inhalation. |

Germ cell mutagenicity

Not classified based on available information.

Carcinogenicity

Not classified based on available information.

Reproductive toxicity

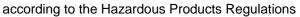
Not classified based on available information.



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| <u>Comp</u> | oonents: | | | |
| Golim | numab: | | | |
| | s on fertility | : | Species: Mous Application Ro Fertility: NOAE Test Type: Fe Species: Mous Application Ro | oute: Intravenous injection EL Parent: 40 mg/kg body weight rtility/early embryonic development |
| Effect | s on fetal development | : | Test Type: En Species: Mon Teratogenicity | nbryo-fetal development |
| | | | Test Type: De Species: Mon Developmenta | |
| | | | Species: Mous Application Ro Teratogenicity Embryo-fetal t | nbryo-fetal development se bute: Intravenous injection : NOAEL: 40 mg/kg body weight oxicity.: NOAEL: 40 mg/kg body weight ve, No effects on fetal development. |
| | -single exposure | | | |
| Not cl | assified based on availa | ble | information. | |
| | -repeated exposure | | | |
| Not cl | assified based on availa | ble | information. | |
| Repea | ated dose toxicity | | | |
| <u>Comp</u> | oonents: | | | |
| Golim | umab: | | | |
| Specie NOAE Applic Expos | es | : | Monkey 50 mg/kg Intravenous 6 Months Intermittent | |
| | | :: | Monkey 25 mg/kg Subcutaneous 6 Months | 5 |
| Specie NOAE Applic | | : | Mouse 40 mg/kg Intravenous | |





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Aspiration toxicity

Not classified based on available information.

Experience with human exposure

Components:

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Inhalation

: Symptoms: mild infections, upper respiratory tract infection, viral infections, bronchitis, sinusitis, fungal infections

SECTION 12. ECOLOGICAL INFORMATION

| Components: | | | | |
|---|-----|-------------------|--|--|
| Golimumab: | | | | |
| Ecotoxicology Assessment Acute aquatic toxicity | | No data available | | |
| Chronic aquatic toxicity | : | No data available | | |
| Persistence and degradabili No data available | ity | | | |
| Bioaccumulative potential No data available | | | | |
| Mobility in soil No data available | | | | |
| Other adverse effects No data available | | | | |

| 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





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|-------------------------------------|----------------------------|---|

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

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

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-



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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 Date format | : | 09/28/2024 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