

Safety Data Sheet



1. IDENTIFICATION	
<i>Product Information</i>	
Product name	ORENCIA® (abatacept) Subcutaneous Injection, 125 mg/ml
Version	1.1, 15.07.2024
Jurisdiction	This Safety Data Sheet was prepared in accordance with the Globally Harmonized System of Classification and Labelling of Chemicals (GHS) for the United States of America (USA) (CFR 1910.1200).
Active substance	Abatacept
Synonyms	Abatacept Injection, Subcutaneous; CTLA-4 Ig Injection, Subcutaneous; CTLA-4 Immunoglobulin Injection, Subcutaneous; BMS-188667-01 Injection, Subcutaneous; BMS 188667-01 Injection, Subcutaneous; Ohrencia Injection; ORENCIA® Injection, 0.7 mL; ORENCIA® Injection, 1 ml; ORENCIA® Injection, 0.4 ml
Intended Uses	This material is a finished drug product for patient use. It is used to treat autoimmune disorders. It is a protein.
<i>Company/Undertaking Identification</i>	
Address	Bristol-Myers Squibb Company E-mail: MG-GBS-MSDS-Request@bms.com P.O. Box 191 New Brunswick, New Jersey 08903 United States of America 1-800-332-2056
Emergency Phone Number	CHEMTREC 1-800-424-9300. For all international transportation emergencies call CHEMTREC at 1-703-527-3887. Collect calls accepted.

2. HAZARDS IDENTIFICATION	
Classification and labelling	
Classification	Not Rated Substance not fully tested.
Precautionary Statements	Avoid ingestion, inhalation, and eye contact. Wash hands after handling to minimize exposure. Handle as a potentially hazardous material.
Other information	29.5% of the mixture consists of ingredients(s) of unknown hazards to the aquatic environment.

3. COMPOSITION/INFORMATION ON INGREDIENTS			
Components	Concentration	CAS No.	H-code(s)
Other ingredients			

Abatacept	12.5 %	332348-12-6	--
Sucrose	< 20 %	57-50-1	--
Non-Hazardous Ingredients	< 75 %	Not available	--
See section 16 for H-code text.			

4. FIRST AID MEASURES

Eye contact	Rinse immediately with plenty of water for at least 15 minutes. Keep eye wide open while rinsing. Obtain medical attention.
Skin contact	Take off contaminated clothing and shoes immediately. Wash off immediately with plenty of water for at least 15 minutes. If skin irritation persists, call a physician.
Inhalation	Move to fresh air. Oxygen or artificial respiration if needed. Obtain medical attention.
Ingestion	Obtain medical attention. Do NOT induce vomiting. Never give anything by mouth to an unconscious person.
Notes to Physician	Medical conditions aggravated include: immunodeficiency. This product has been reported to interact with the following medications: live viruses vaccine, TNF blocking agents. Refer to Section 11.
Medical Surveillance	This exam should be overseen by a physician thoroughly knowledgeable about both the toxicity of this compound and the extent of work place exposure. Employees who are planning pregnancy, pregnant, breast-feeding, or concerned with other reproductive issues should be encouraged to consult with the occupational health physician monitoring worker's health.

5. FIRE-FIGHTING MEASURES

Flammable Properties	Material is an aqueous solution. Not expected to be flammable.
Extinguishing Media	Suitable extinguishing media: Dry chemical, Water spray, Foam Unsuitable extinguishing media: Do NOT use water jet.
Protection of Firefighters	Specific hazards: Not available Protective equipment: Use personal protective equipment. In the event of fire, wear self-contained breathing apparatus. Hazardous Combustion Products: carbon oxides (COx), nitrogen oxides (NOx), and, oxides of phosphorus
Other information	Decontaminate protective clothing and equipment before reuse.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions	Refer to protective measures listed in sections 7 and 8. Use personal protective equipment. Examples include tightly fitting safety goggles, disposable lab coat of low permeability with cuffs, double gloves and shoe covers. Wear respiratory protection. Depending on the nature of the spill (quantity and extent of spill) additional protective clothing and equipment such as a self-contained breathing apparatus may be needed.
Environmental precautions	Prevent release to drains and waterways. Prevent release to the environment.
Containment Methods	Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

6. ACCIDENTAL RELEASE MEASURES

Cleanup Methods	Spill prevention procedures and a spill response procedure should be implemented. Absorb spillage using appropriate absorbent materials and place in container for disposal according to local regulations (see Section 13). Clean spill area with a deactivating solution (if available) followed by detergent and water after spill pick-up. Handle waste materials, including gloves, protective clothing, contaminated spill cleanup material, etc., as appropriate for chemically and pharmacologically similar materials. Avoid generating aerosols in the event of containment loss.
-----------------	---

7. HANDLING AND STORAGE

Handling Precautions	Avoid exposure - obtain special instructions before use. Avoid inhalation of vapour or mist. Keep away from heat and sources of ignition. Prevent release to drains and waterways.
Container Requirements	Store in the original primary packaging as provided.
Storage Conditions	Keep refrigerated. (2 - 8 °C) Protect against light. Keep away from heat, sparks and flames. Store locked up.
Specific use(s)	Refer to Section 1

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure limit(s)	Company Guideline	ACGIH	Germany OEL	UK MEL
Abatacept	450 µg/m ³ 8 hour-TWA	--	--	--
Sucrose		10 mg/m ³ TWA	--	--

Recommended Industrial Hygiene Monitoring Methods	General - The health hazard risk of handling this material is dependent on many factors, including physical form, % API in material being handled, duration and frequency of process task, and effectiveness of controls. If it is necessary to handle this compound outside of engineering controls, an exposure risk assessment should be conducted and procedures documented by a qualified EHS professional.
---	--

EXPOSURE CONTROLS / PERSONAL PROTECTION FOR MATERIAL AS SUPPLIED

This formulation contains an active pharmaceutical ingredient (API) with the guideline limit noted above. To keep the API below the recommended guideline, the material as supplied should be controlled during handling to limit total airborne aerosol exposure to: 3,600 µg/m³ (For internal BMS use: Biological Control Category A ≥ 1 µg/m³).

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls and Ventilation	LABORATORIES: When handling quantities up to 1 liter (0.5-25% solution basis) a standard laboratory with general laboratory dilution ventilation (e.g. 6-12 air changes per hour) is appropriate. Refer to HVAC standard DS-4301 for exact requirements. When handling quantities >1 - 10 Liters (0.5-25% solution basis), work in a standard laboratory when manipulating materials, fume hood; biological safety cabinet (Class II Type A2 with thimble connection, B1, or B2); approved vented enclosure and closed processes for high energy biologic processes. When handling quantities >10 Liters (0.5-25% solution basis), work in Development Laboratory or Biologic Pilot Plant Area using Biological safety cabinet (Class II Type A2 with thimble connection, B1, or B2), glove box, or approved vented enclosure required. Closed processes for high energy biologic processes. Use appropriate containment isolation technology. For all quantities noted - For low energy operations, use protective shielding (shields, absorbent lined trays or work surfaces) to limit spread of splash or splatter. Local exhaust ventilation is required. High-energy operations must be performed in closed or contained systems. Eliminate the use of all sharps, if possible. A documented risk assessment is required to support sharp usage. MANUFACTURING: Perform closed transfers when feasible. Avoid generation of aerosols. Control total aerosol levels to recommended control limits for material as supplied (based on concentration of API in material being handled). Establish a spill/leak procedure as outlined in Section 6 to address equipment failures/leaks. Exposures are typically controlled by GMP design specifications under normal operations. CLINICAL: When preparing drug in a clinical setting, use good clinical practice for drug preparation. If the potential for personal exposure exists, use an approved vented enclosure such as a fume hood or biological safety cabinet if available. Please refer to the general guidance at the beginning of this section.
Respiratory protection	Use and selection of respiratory protection is based upon an exposure risk assessment and potential for aerosol generation. When engineering controls are not sufficient to control exposure, wear an approved respiratory protection device that is adequate to control exposure based on measured or estimated airborne, and the rating for the device. Follow local regulatory requirements.
Eye protection	Wear safety glasses with side-shields. Face shields or chemical safety goggles may be required if contact potential exists or if corrosive materials are present. Note: Choice of eye protection may be influenced by the type of respirator which is selected. When handling quantities exceeding 1 liter (0.5-25% solution basis), use splash resistant goggles and face shields as needed for liquids.
Hand protection	When handling solutions wear impermeable gloves (e.g. latex or nitrile). Persons who are allergic to natural rubber latex should select gloves made from one of the other materials.
Skin and body protection	LABORATORIES: Wear a laboratory coat (EN 340). MANUFACTURING: Wear laboratory coat or full coverall of low permeability. Wear wrist gauntlets/sleeves and shoe covers as appropriate. CLINICAL: When preparing drug in clinical setting wear lab coat.
Hygiene	Wash hands and face before breaks and immediately after handling the product.
Environmental exposure controls	Prevent release to drains and waterways.

9. PHYSICAL AND CHEMICAL PROPERTIES

General Information

Appearance

Physical State	liquid
Color	Clear, colorless to pale yellow solution
Form	aqueous solution

Odour

Odour	Not available
Odor Threshold	Not available

Important health safety and environmental information

pH	6.8 - 7.4
----	-----------

Other information

Bulk density	Not available
Evaporation rate	Not available
Molecular formula	Not applicable
Hydrolysis/Photolysis	Not available
Hygroscopicity	Not available
Molecular Weight	Not applicable
Log Octanol/Water Partition Coefficient [log Kow]	Not available
Surface Tension	Not available
pKa	Not available
Particle Size	Not available
Solubility, Water	Not available
Specific Gravity/ Relative density	Not available
Viscosity, dynamic	Not available
Viscosity, kinematic	Not available
% Volatile	Not available

Thermal/Stability properties

Autoignition temperature	Not available
Boiling Point	Not available
Thermal decomposition	Not available
Explosive Limits, LEL	Not available
Explosive limits, UEL	Not available
Explosiveness	Not available
Flammability	Nonflammable
Flash point	Not available
Melting Point	Not available
Oxidizing Potential	Not available

Vapor Properties

Vapor Density	Not available
Vapor Pressure	Not available
Saturated Vapor Concentration	Not available

10. STABILITY AND REACTIVITY

Stability

Chemical Stability	Stable under normal conditions.
--------------------	---------------------------------

10. STABILITY AND REACTIVITY

Conditions to avoid	Not available
Materials to avoid	Not available
Hazardous decomposition products	Hazardous decomposition products formed under fire conditions.: carbon oxides (COx), nitrogen oxides (NOx), and, oxides of phosphorus
Hazardous reactions	None known.

11. TOXICOLOGICAL INFORMATION

Routes of Entry	Ingestion, inhalation, Eye contact, Skin contact
Eye Irritation	<u>Sucrose</u> Dust may cause mechanical irritation.
Skin Irritation	<u>Sucrose</u> Dust may cause mechanical irritation.
Respiratory Irritation	<u>Sucrose</u> Dust may cause mechanical irritation.
Sensitization	Not available
Acute Toxicity Study	Acute Oral <u>Sucrose</u> LD50 (rat): 29,700 mg/kg High exposure effects include: hypoactivity, diarrhea, skin discoloration. Acute toxicity (other routes of administration) <u>Abatacept</u> LD50 (monkey, intravenous): > 125 mg/kg No mortality occurred. LD50 (mouse, intravenous): > 100 mg/kg No mortality occurred. LD50 (rat, subcutaneous): > 100 mg/kg No mortality occurred. <u>Sucrose</u> LD50 (mouse, intraperitoneal): 14,000 mg/kg
Repeated Dose Toxicity	<u>Abatacept</u> 5 Days - 12 months parenteral (1/week - daily) rat, mouse, monkey study with recovery period (3 - 4 months) (males and females): LOAEL (5 days, mouse) = 7 mg/kg; Low dose effects include (< = 100 mg/kg): hypoactivity, decreased food consumption, lymphoid depletion, decreased immunoglobulins, decreased white blood cell count, changes in clinical chemistry parameters, immunogenic responses, measurable drug-specific antibodies, damage at injection sites, increased organ weights included;

11. TOXICOLOGICAL INFORMATION

spleen, decreased organ weights included: thymus, lymph nodes. Low dose microscopic effects include: lymph nodes, spleen. High dose microscopic effects include: kidney. After recovery, most parameters returned to normal. Effects still present after recovery. measurable drug-specific antibodies

Genetic Toxicity

Abatacept

In vitro

Ames reverse-mutation assay -- negative

Forward gene mutation assay -- negative

Chromosome aberration test in vitro -- negative

Sucrose

Mutagenicity Assessment

Not classified as mutagen according to GHS criteria.

Carcinogenicity

Abatacept

88 Weeks subcutaneous (1/week) mouse study : Tumor LOAEL = 20 mg/kg (males and females). [tumor organs: lymphatic system, mammary gland]

The reported tumors are considered to be due to a secondary response to chronic immunosuppression.

Carcinogenicity Assessment

This material has limited evidence of carcinogenic potential. See "Human Experience".

Sucrose

Carcinogenicity Assessment

Not classifiable as to its carcinogenicity to humans.

Carcinogenicity

ACGIH

IARC

NTP

Abatacept

--

--

--

Sucrose

A4

--

--

Reproductive Toxicity

Abatacept

intravenous (every 3 days) Study of Fertility and Early Embryonic Development (rat)

NOAEL = 200 mg/kg

No effects were found on mating or fertility. No effects were observed in the fetus/embryo.

intravenous (every 3 days) Study of Pre- and Postnatal Development (rat)

LOAEL = 200 mg/kg

Fetal effects include: immunogenic responses.

Assessment Reproductive Toxicity

Data indicate that this compound is not a reproductive hazard.

Sucrose

4 Days oral (daily) Reproductive and developmental study (rat)

No effects were observed

Developmental Toxicity

Abatacept

11. TOXICOLOGICAL INFORMATION

9 Days intravenous (daily) Study of Embryo-Fetal Development (mouse)
NOAEL = 300 mg/kg
No significant adverse effects were observed.

9 Days intravenous (daily) Study of Embryo-Fetal Development (rat)
NOAEL = 200 mg/kg
No significant adverse effects were observed.

9 days intravenous (daily) Study of Embryo-Fetal Development (rabbit)
NOAEL = 200 mg/kg
No significant adverse effects were observed.

2 weeks intravenous (every 3 days) Study of Pre- and Postnatal Development (rat)
(F1 offspring) NOAEL = 45 mg/kg

3 months - 13 weeks parenteral (every 3 days) Developmental immunotoxicity study (rat)
(juveniles, males and females) LOAEL = 20 mg/kg
Offspring effects include: changes in immunological parameters, infection, death, increased organ weights included: thymus, Microscopic changes were observed in the following organs: lymph nodes, spleen, thyroid gland, pancreas, prostate, seminal vesicles, Effects considered species specific and may not be relevant for humans include: autoimmune symptoms.

Developmental Toxicity Assessment

Available data do not indicate a potential for selective developmental toxicity.

Sucrose

Developmental Toxicity Assessment

Fetal malformations were observed after very high doses in animal studies.

Human experience

Experiences with Human Exposure

Abatacept

Clinical trial(s) Intravenous and subcutaneous route low exposure - acute effects include: headache, dizziness, numbness, fatigue, blurred vision, nausea, vertigo, diarrhoea, abdominal pain, joint pain, muscle pain, rash, changes in blood pressure, skin sensation changes, infusion reaction, hypersensitivity, infection.

Sucrose

General effects low exposure - acute effects include: cavities. low exposure - long term exposure effects include: skin disorders.

Target Organs

Abatacept
immune system

Symptoms

Abatacept
See "Human Experience".

Sucrose

11. TOXICOLOGICAL INFORMATION

See "Human Experience".

Pharmacokinetics/ Toxicokinetics

Abatacept

Absorption: Proteins greater than 10 kilodaltons (kDa) are not expected to exhibit systemic bioavailability of greater than 1% by the inhalation route. This finding is based on limited inhalation studies with proteins of similar molecular weights.

Distribution: Data available upon request.

Metabolism: Data available upon request.

Elimination: Half-life = 16.7 Hour(s) (Human). healthy volunteers

Other Toxicity Information

Other Toxicity Tests

Abatacept

In vivo safety pharmacology test(s) : no drug related effects

Other Information:

The toxicological information provided in this SDS may not be applicable to occupational routes of exposure.

Therefore, this substance is not classified according to GHS criteria.

Abatacept

The toxicological information provided in this SDS may not be applicable to occupational routes of exposure.

Therefore, this substance is not classified according to GHS criteria.

12. ECOLOGICAL INFORMATION

Ecotoxicity effects

Not available

Mobility

Not available

Persistence and degradability

Not available

PBT and vPvB assessment

Not available

13. DISPOSAL CONSIDERATIONS

Advice On Disposal And Packaging

Disposal should be in accordance with applicable regional, national and local laws and regulations. Local regulations may be more stringent than regional or national requirements. This information presented only applies to the material as supplied.

Other information

Disposal by incineration is recommended.

14. TRANSPORT INFORMATION

This material is not a dangerous good for the purpose of transportation in all modes.

15. REGULATORY INFORMATION

United States of America

313 Toxic Release Inventory No components listed on the SARA 313 inventory.

TSCA Inventory Not listed. Food, drug and cosmetic products are exempt from TSCA.

15. REGULATORY INFORMATION

Regulatory Not available
Authorizations and
Restrictions:

16. OTHER INFORMATION

Text of H-code(s) mentioned in Section 3.

Not available

Recommended Restrictions for Use:

Not available

SDS preparation information

Prepared by Global Environment, Health, Safety, and Sustainability 1-732-227-7380

Prepared on 15.07.2024 DD/MM/YYYY

This Safety Data Sheet has been revised. This data sheet contains changes from the previous version in section(s): 2, 8, 11, and 16. This Safety Data Sheet was prepared for the United States of America (USA).

*Country- Specific Emergency
Phone Numbers*

Country	Local # or Toll Free in Country*	Greeting Language	Country	Local # or Toll Free in Country*	Greeting Language
AMERICAS			Latvia (Riga)	+(371)-66165504	Latvian
Argentina (Buenos Aires)	+(54)- 1159839431	Latin American Spanish	Lithuania (Vilnius)	+(370)-52140238	Lithuanian
Brazil (Rio De Janeiro)	+(55)- 2139581449	Portuguese	Luxembourg	+(352)-20202416	French, German, Luxembourgish
Cayman Islands	+(1)-345-749- 8392	English	Netherlands	+(31)-858880596	Dutch
Chile (Santiago)	+(56)-225814934	Latin American Spanish	Norway (Oslo)	+(47)-21930678	Norwegian
Colombia *	01800-710-2151	Latin American Spanish	Poland (Warsaw)	+(48)-223988029	Polish
Costa Rica *	+(506)-40003869	Latin American Spanish	Portugal	+(351)- 308801773	Portuguese
Mexico *	01-800-681-9531	Latin American Spanish	Romania	+(40)-37- 6300026	Romanian
Panama	+(507)-8322475	Latin American Spanish	Russia *	8-800-100-6346	Russian
Peru (Lima)	+(51)-17071295	Latin American Spanish	Slovakia (Bratislava)	+(421)- 233057972	Slovak
Trinidad and Tobago *	+(1)-868-224- 5716	English	Slovenia (Ljubljana)	+(386)-18888016	Slovene/Slovenian
EUROPE			Spain (Barcelona)	+(34)-931768545	European Spanish
Austria (Vienna)	+(43)-13649237	German	Spain *	900-868538	European Spanish
Belgium (Brussels)	+(32)-28083237	French, Flemish, German	Sweden (Stockholm)	+(46)-852503403	Swedish
Bulgaria (Plovdiv)	+(359)-32570104	Bulgarian	Switzerland (Zurich)	+(41)- 435082011	Swiss German, French and Italian
Croatia (Zagreb)	+(385)-17776920	Croatian	Turkey (Istanbul)	+(90)-212- 7055340	Turkish
Czech Republic (Prague)	+(420)- 228880039	Czech	Ukraine	+(380)- 947101374	Ukrainian
Finland (Helsinki)	+(358)- 942419014	Finnish	UK (London)	+(44)-870- 8200418	English
France	+(33)-975181407	French	EAST ASIA		
Germany *	0800-181-7059	German	China	86-21-33235036	Mandarin
Denmark	+(45)-69918573	Danish	Hong Kong *	800-968-793	Cantonese
Estonia	+(372)-6681294	Estonian	Japan	+(81)-345209637	Japanese
Germany (Frankfurt)	+(49)- 69643508409	German	Singapore	+(65)-31581349	English and Mandarin
Greece (Athens)	+(30)- 2111768478	Greek	South Korea	+(82) 070-7686- 0086	Korean
Hungary (Budapest)	+(36)-18088425	Hungarian	AUSTRALIA & OCEANIA		
Italy *	800-789-767	Italian	Australia (Sydney)	+(61)-290372994	English
Italy (Milan)	+(39)- 245557031	Italian	New Zealand *	+(64)-98010034	English
			India *	000-800-100- 7141	Hindi

*Phone numbers for countries marked with an asterisk must be dialed within the country.

The information contained in this SDS is believed to be accurate and represents the best information reasonably available at the time of preparation. However, we make no warranty, express or implied, with respect to such information. and we assume no liability from its use.