

Safety Data Sheet

acc. to OSHA HCS

Printing date 03/23/2020

Revision 1

Reviewed on 03/23/2020

1 Identification

· **Product identifier**

· **Trade name:** MSCgo™ Osteogenic SF, XF

· **Article number:** 05-440-1

· **Application of the substance / the mixture**

MSCgo™ Osteogenic Differentiation Medium is a serum-free (SF), xeno-free (XF), complete, and ready to use formulation developed for optimal differentiation of human mesenchymal stem cells (hMSC) to mature osteocytes. The MSCgo™ Osteogenic Differentiation Medium is validated to efficiently differentiate hMSC from a variety of sources, including bone marrow (BM-MSC), adipose tissue (AT-MSC), and umbilical cord tissue (UC-MSC).

· **Details of the supplier of the safety data sheet**

· **Manufacturer/Supplier:**

Biological Industries Israel Beit Haemek Ltd.

BEIT HAEMEK 2511500

ISRAEL

Michal.badihi@sartorius.com

· **Information department:** Product safety department.

· **Emergency telephone number:** During normal opening times: +972/4/9962467

2 Hazard(s) identification

· **Classification of the substance or mixture**

The product is not classified, according to the Globally Harmonized System (GHS).

· **Label elements**

· **GHS label elements** Void

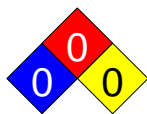
· **Hazard pictograms** Void

· **Signal word** Void

· **Hazard statements** Void

· **Classification system:**

· **NFPA ratings (scale 0 - 4)**



Health = 0

Fire = 0

Reactivity = 0

· **HMIS-ratings (scale 0 - 4)**



Health = 0

Fire = 0

Reactivity = 0

· **Other hazards**

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

3 Composition/information on ingredients

· **Chemical characterization:** Mixtures

· **Description:** Mixture of the substances listed below with nonhazardous additions.

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· Dangerous components: Void

4 First-aid measures

- **Description of first aid measures**
- **General information:** No special measures required.
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Generally the product does not irritate the skin.
- **After eye contact:**
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:** Wash mouth with water if person is conscious and seek medical advice.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** Use fire fighting measures that suit the environment.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** No special measures required.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Not required
- **Environmental precautions:** No special measures required.
- **Methods and material for containment and cleaning up:** No special measures required.
- **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

- **Handling:**
- **Precautions for safe handling** No special precautions are necessary if used correctly.
- **Information about protection against explosions and fires:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** 2 °C-8 °C
- **Information about storage in one common storage facility:** Not required
- **Further information about storage conditions:** Not required
- **Specific end use(s)** No further relevant information available.

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8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Control parameters**
- **Components with limit values that require monitoring at the workplace:**
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **Additional information:** The lists that were valid during the creation were used as basis.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
The usual precautionary measures for handling chemicals should be followed.
- **Protection of hands:**
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
- **Material of gloves**
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
- **Penetration time of glove material**
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:** Safety glasses

9 Physical and chemical properties

- **Information on basic physical and chemical properties**
- **General Information**
- **Appearance:**

Form:	Solution
Color:	Clear red
Odor:	uncharacteristic
Odor threshold:	Not determined.
- **pH-value at 20 °C (68 °F):** 7.1-7.6
- **Change in condition**

Melting point/Melting range:	0 °C (32 °F)
Boiling point/Boiling range:	Undetermined.
- **Flash point:** Not applicable.
- **Flammability (solid, gaseous):** Not applicable.
- **Decomposition temperature:** Not determined.
- **Auto igniting:** Product is not selfigniting.

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· **Danger of explosion:** *Product does not present an explosion hazard.*

· **Explosion limits:**

Lower: *Not determined.*

Upper: *Not determined.*

· **Vapor pressure at 20 °C (68 °F):** *23 hPa (17.3 mm Hg)*

· **Density at 20 °C (68 °F):** *1 g/cm³ (8.345 lbs/gal)*

· **Relative density** *Not determined.*

· **Vapor density** *Not determined.*

· **Evaporation rate** *Not determined.*

· **Solubility in / Miscibility with**

Water: *Fully miscible.*

· **Partition coefficient (n-octanol/water):** *Not determined.*

· **Viscosity:**

Dynamic: *Not determined.*

Kinematic: *Not determined.*

· **Solvent content:**

Organic solvents: *0.0 %*

Water: *>97.0 %*

VOC content: *<0.1 %*

<1.0 g/l / 0.00 lb/gal

Solids content: *<0.3%*

· **Other information** *No further relevant information available.*

10 Stability and reactivity

· **Reactivity** *No further relevant information available.*

· **Chemical stability**

· **Thermal decomposition / conditions to be avoided:** *No decomposition if used according to specifications.*

· **Possibility of hazardous reactions** *No dangerous reactions known.*

· **Conditions to avoid** *No further relevant information available.*

· **Incompatible materials:** *No further relevant information available.*

· **Hazardous decomposition products:** *No dangerous decomposition products known.*

11 Toxicological information

· **Information on toxicological effects**

· **Acute toxicity:**

· **Primary irritant effect:**

on the skin: No irritant effect.

on the eye: No irritating effect.

· **Sensitization:** *No sensitizing effects known.*

· **Additional toxicological information:**

The product is not subject to classification according to internally approved calculation methods for preparations:

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When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

- **Carcinogenic categories**

- **IARC (International Agency for Research on Cancer)**

None of the ingredients is listed.

- **NTP (National Toxicology Program)**

None of the ingredients is listed.

- **OSHA-Ca (Occupational Safety & Health Administration)**

10108-64-2 cadmium chloride

12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** Not toxic to the aquatic life
- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:** Not hazardous for water.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:** No special recommendation
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

- | | |
|--|---------------|
| <ul style="list-style-type: none"> · UN-Number · DOT, IMDG, IATA | not regulated |
| <ul style="list-style-type: none"> · UN proper shipping name · DOT, IMDG, IATA | not regulated |
| <ul style="list-style-type: none"> · Transport hazard class(es) · DOT, ADN, IMDG, IATA · Class | not regulated |
| <ul style="list-style-type: none"> · Packing group · DOT, IMDG, IATA | not regulated |

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- | | |
|--|-----------------|
| · Environmental hazards: | Not applicable. |
| · Special precautions for user | Not applicable. |
| · Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code | Not applicable. |
| · UN "Model Regulation": | not regulated |

15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
- Sara

- **Section 355 (extremely hazardous substances):**

None of the ingredients is listed.

- **Section 313 (Specific toxic chemical listings):**

None of the ingredients is listed.

- **Hazardous Air Pollutants**

7647-01-0	hydrogen chloride
7783-00-8	selenious acid
7791-13-1	Cobalt(II) chloride hexahydrate
10034-96-5	Mangan(II)-sulfat-Monohydrat
10101-97-0	nickel sulfate hexahydrate
10102-18-8	sodium selenite
10108-64-2	cadmium chloride

- **Proposition 65**

- **Chemicals known to cause cancer:**

10101-97-0	nickel sulfate hexahydrate
10108-64-2	cadmium chloride

- **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

- **Chemicals known to cause reproductive toxicity for males:**

10101-97-0	nickel sulfate hexahydrate
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- **Chemicals known to cause developmental toxicity:**

None of the ingredients is listed.

- **Carcinogenic categories**

- **EPA (Environmental Protection Agency)**

7783-00-8	selenious acid	D
10034-96-5	Mangan(II)-sulfat-Monohydrat	D
10102-18-8	sodium selenite	D
10108-64-2	cadmium chloride	B1
10326-27-9	barium chloride, dihydrate	D, CBD(inh), NL(oral)

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· TLV (Threshold Limit Value established by ACGIH)

None of the ingredients is listed.

· NIOSH-Ca (National Institute for Occupational Safety and Health)

10101-97-0 nickel sulfate hexahydrate

10108-64-2 cadmium chloride

· GHS label elements Void

· Hazard pictograms Void

· Signal word Void

· Hazard statements Void

· Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Department issuing SDS: Product safety department.

· Contact: Ms. BADICHI GITLIN

· Date of preparation / last revision 03/23/2020

· Abbreviations and acronyms:

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

VOC: Volatile Organic Compounds (USA, EU)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit