



## SAFETY DATA SHEET In Accordance with ISO/DIS 11014

Review Date 01/25/2018

Revision Date 01/25/2018

### 1 Identification of the Substance/Mixture and Company

**Product Name:** MasterCal IM Plus Decalcifier

**SDS Code:** SSDCM13

**Product Description:** Bone Decalcifier

**Manufacturer/Supplier:**

American MasterTech  
1330 Thurman Street  
Lodi, CA 95240  
USA  
(800) 860-4073

**European Authorized Representative:**

Emergo Europe  
Prinsessegracht 20  
2514 AP The Hague,  
The Netherlands

**Emergency Telephone Number:** Infotrac (800) 535-5053 (24 hours) - International (011) 352-323-3500

### 2 Hazards Identification

**Classification of the substance or mixture**



GHS07

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2A H319 Causes serious eye irritation.

**Label elements**

**GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).

**Hazard pictograms**



GHS07

**Signal word** Warning

**Hazard statements**

Causes skin irritation.

Causes serious eye irritation.

**Precautionary statements**

Wash thoroughly after handling.

Wear protective gloves / eye protection / face protection.

If on skin: Wash with plenty of water.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Specific treatment (see on this label).

If skin irritation occurs: Get medical advice/attention.

If eye irritation persists: Get medical advice/attention.

Take off contaminated clothing and wash it before reuse.

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**Product Name: MasterCal IM Plus Decalcifier**


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**Classification system:****NFPA ratings (scale 0 - 4)**

Health = 2

Fire = 1

Reactivity = 0

**HMIS-ratings (scale 0 - 4)**

Health = 2

Fire = 1

Reactivity = 0

**Other hazards****Results of PBT and vPvB assessment****PBT:** Not applicable.**vPvB:** Not applicable.

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### 3 Composition

**Chemical characterization: Mixtures****Description:** Mixture of the substances listed below with nonhazardous additions.**Dangerous components:**

|         |             |      |
|---------|-------------|------|
| 64-18-6 | formic acid | <20% |
|---------|-------------|------|

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### 4 First Aid Measures

**Description of first aid measures****After inhalation:** In case of unconsciousness place patient stably in side position for transportation.**After skin contact:** Immediately wash with water and soap and rinse thoroughly.**After eye contact:** Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.**After swallowing:** If symptoms persist consult doctor.**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.

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### 5 Firefighting 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.

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### 6 Accidental Release Measures

**Personal precautions, protective equipment and emergency procedures:** Not required.**Environmental precautions:**

Dilute with plenty of water.

Do not allow to enter sewers/ surface or ground water.

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**Methods and material for containment and cleaning up:**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

**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.

**Protective Action Criteria for Chemicals**

| <b>PAC-1:</b> |             |                       |
|---------------|-------------|-----------------------|
| 64-18-6       | formic acid | 3 ppm                 |
| 60-00-4       | edetic acid | 4.1 mg/m <sup>3</sup> |
| <b>PAC-2:</b> |             |                       |
| 64-18-6       | formic acid | 25 ppm                |
| 60-00-4       | edetic acid | 45 mg/m <sup>3</sup>  |
| <b>PAC-3:</b> |             |                       |
| 64-18-6       | formic acid | 250 ppm               |
| 60-00-4       | edetic acid | 200 mg/m <sup>3</sup> |

## 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:** No special requirements.**Information about storage in one common storage facility:** Not required.**Further information about storage conditions:** Keep receptacle tightly sealed.**Specific end use(s):** No further relevant information available.

## 8 Exposure Controls/Personal Protection

**Additional information about design of technical systems:** No further data; see item 7.**Control parameters**

| <b>Components with limit values that require monitoring at the workplace:</b> |   |
|---|---|
| <b>64-18-6 formic acid</b>  |   |
| PEL   | Long-term value: 9 mg/m <sup>3</sup> , 5 ppm  |
| REL   | Long-term value: 9 mg/m <sup>3</sup> , 5 ppm  |
| TLV   | Short-term value: 19 mg/m <sup>3</sup> , 10 ppm<br>Long-term value: 9.4 mg/m <sup>3</sup> , 5 ppm |

**Additional information:** The lists that were valid during the creation were used as basis.**Exposure controls:****Personal protective equipment:****General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

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Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

**Breathing equipment:** Not required.

**Protection of hands:**

Protective gloves

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:** Tightly sealed goggles

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## 9 Physical and Chemical Properties

### Information on basic physical and chemical properties

#### General Information

#### Appearance

|                        |                 |
|------------------------|-----------------|
| <b>Form:</b>           | Liquid          |
| <b>Color:</b>          | Colorless       |
| <b>Odor:</b>           | Nearly odorless |
| <b>Odor threshold:</b> | Not determined. |

**pH-value at 20 °C (68 °F):** <3

#### Change in condition

|                                     |                 |
|-------------------------------------|-----------------|
| <b>Melting point/Melting range:</b> | Undetermined.   |
| <b>Boiling point/Boiling range:</b> | 100 °C (212 °F) |

**Flash point:** Not applicable.

**Flammability (solid, gaseous):** Not applicable.

**Ignition temperature:** 520 °C (968 °F)

**Decomposition temperature:** Not determined.

**Auto igniting:** Product is not selfigniting.

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

#### Explosion limits:

|               |                 |
|---------------|-----------------|
| <b>Lower:</b> | Not determined. |
| <b>Upper:</b> | Not determined. |

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

**Density:** Not determined.

**Relative density:** Not determined.

**Vapour density:** Not determined.

**Evaporation rate:** Not determined.

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|   |  |
|---|--|
| <b>Solubility in / Miscibility with Water:</b>  | Fully miscible.                            |
| <b>Partition coefficient (n-octanol/water):</b> | Not determined.                            |
| <b>Dynamic:</b>                                 | Not determined.                            |
| <b>Kinematic:</b>                               | Not determined.                            |
| <b>Other information:</b>                       | No further relevant information available. |

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## 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.

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## 11 Toxicology Information

**Information on toxicological effects**

**Acute toxicity:**

**LD/LC50 values that are relevant for classification:**

**64-18-6 formic acid**

|      |      |                   |
|------|------|-------------------|
| Oral | LD50 | 1,100 mg/kg (rat) |
|------|------|-------------------|

**Primary irritant effect:**

**On the skin:** Irritant to skin and mucous membranes.

**On the eye:** Irritating effect.

**Sensitization:** No sensitizing effects known.

**Additional toxicological information:**

The product shows the following dangers according to internally approved calculation methods for preparations:  
Irritant

**Carcinogenic categories**

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

None of the ingredients are listed.

**NTP (National Toxicology Program)**

None of the ingredients are listed.

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

None of the ingredients are listed.

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## 12 Ecological Information

**Toxicity:**

**Aquatic toxicity:** No further relevant information available.

**Persistence and degradability:** No further relevant information available.

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**Behavior in environmental systems:****Bioaccumulative potential:** No further relevant information available.**Mobility in soil:** No further relevant information available.**Additional ecological information:****General notes:**

Water hazard class 1 (Self-assessment): slightly hazardous for water




Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

**Results of PBT and vPvB assessment****PBT:** Not applicable.**vPvB:** Not applicable.**Other adverse effects:** No further relevant information available.

### 13 Disposal Considerations

**Uncleaned packagings:****Recommendation:** Disposal must be made according to official regulations.**Recommended cleansing agent:** Water, if necessary with cleansing agents.

### 14 Transport Information

|   |                        |
|---|------------------------|
| <b>UN-Number</b>  | UN3412                 |
| <b>DOT, ADR, IMDG, IATA</b>   |                        |
| <b>UN proper shipping name</b>  |                        |
| <b>DOT</b>  | Formic acid            |
| <b>ADR</b>  | 3412 Formic acid       |
| <b>IMDG, IATA</b>   | FORMIC ACID            |
| <b>Transport hazard class(es)</b>   |                        |
| <b>DOT</b>  |                        |
|  |                        |
| <b>Class</b>  | 8 Corrosive substances |
| <b>Label</b>  | 8                      |
| <b>ADR</b>  |                        |
|  |                        |
| <b>Class</b>  | 8 Corrosive substances |
| <b>IMDG, IATA</b>   |                        |
|  |                        |
| <b>Class</b>  | 8 Corrosive substances |

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|   |   |
|---|---|
| <b>Label</b>  | 8   |
| <b>Packing group<br/>DOT, ADR, IMDG, IATA</b>                                       | II  |
| <b>Environmental hazards</b>  | Not applicable.   |
| <b>Special precautions for user:</b>  | Warning: Corrosive substances   |
| <b>Danger code (Kemler):</b>  | 80  |
| <b>EMS Number:</b>  | F-A,S-B   |
| <b>Segregation groups</b>   | Acids, acids  |
| <b>Stowage Category</b>   | B   |
| <b>Transport in bulk according to Annex II of<br/>MARPOL73/78 and the IBC Code:</b> | Not applicable.   |
| <b>Transport/Additional information:</b>  |   |
| <b>DOT<br/>Quantity limitations</b>   | On passenger aircraft/rail: 1L<br>On cargo aircraft only: 30L   |
| <b>ADR<br/>Excepted quantities (EQ)</b>   | Code: E2<br>Maximum net quantity per inner packaging: 30 ml<br>Maximum net quantity per outer packaging: 500 ml |
| <b>UN "Model Regulation":</b>   | UN 3412 FORMIC ACID, 8, II  |

## 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 are listed.

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

64-18-6 | formic acid

**TSCA (Toxic Substances Control Act):**

All ingredients are listed.

**Proposition 65**
**Chemicals known to cause cancer:**

None of the ingredients is listed.

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

None of the ingredients are listed.

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

None of the ingredients are listed.

**Chemicals known to cause developmental toxicity:**

None of the ingredients are listed.

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**Carcinogenic categories**
**EPA (Environmental Protection Agency)**

None of the ingredients are listed.

**TLV (Threshold Limit Value established by ACGIH)**

None of the ingredients are listed.

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

None of the ingredients are listed.

**GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).

**Hazard pictograms**


GHS07

**Signal word** Warning

**Hazard statements**

Causes skin irritation.

Causes serious eye irritation.

**Precautionary statements**

Wash thoroughly after handling.

Wear protective gloves / eye protection / face protection.

If on skin: Wash with plenty of water.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Specific treatment (see on this label).

If skin irritation occurs: Get medical advice/attention.

If eye irritation persists: Get medical advice/attention.

Take off contaminated clothing and wash it before reuse.

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

## 16 Other Information

This information contained herein is believed to be accurate but is not warranted to be so. Data and calculations are based on information furnished by the manufacturer of the product and manufacturers of the components of the product. Users are advised to confirm in advance of need that information is current, applicable and suited to the circumstances of use. Vendor assumes no responsibility for injury to vendee or third persons proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet. Furthermore, vendor assumes no responsibility for injury caused by abnormal use of the material even if reasonable safety procedures are followed. Any questions regarding this product should be directed to the manufacturer of the product as described in Section 1.

**Department issuing SDS:** Regulatory Department

**Contact:** Phone (800) 860-4073

**Date of preparation / last revision** 01/25/2018 / -

**Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists



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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)  
LC50: Lethal concentration, 50 percent  
LD50: Lethal dose, 50 percent  
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  
Skin Irrit. 2: Skin corrosion/irritation – Category 2  
Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A

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