



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

Review Date 03/17/2017

Revision Date 03/17/2017

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

**Product Name:** Plank-Rychlo's Solution

**SDS Code:** SSDCP01

**Product Description:** Histology 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**



GHS05 Corrosion

Skin Corr. 1B H314 Causes severe skin burns and eye damage.

Eye Dam. 1 H318 Causes serious eye damage.

**Label elements**

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

**Hazard pictograms**



GHS05

**Signal word** Danger

**Hazard-determining components of labeling:**

hydrogen chloride  
aluminium chloride, anhydrous  
formic acid

**Hazard statements**

Causes severe skin burns and eye damage.

**Precautionary statements**

Do not breathe dusts or mists.

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

Wash thoroughly after handling.

If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

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

Immediately call a POISON CENTER/doctor.

Specific treatment (see on this label).

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

Wash contaminated clothing before reuse.

If swallowed: Rinse mouth. Do NOT induce vomiting.

Store locked up.

Dispose of contents/container in accordance with local/regional/national/international regulations.

**Classification system:**

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

Health = 3

Fire = 0

Reactivity = 0

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

Health = 3

Fire = 0

Reactivity = 0

**Other hazards**

**Results of PBT and vPvB assessment**

**PBT:** Not applicable.

**vPvB:** Not applicable.

### 3 Composition

**Chemical characterization: Mixtures**

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

<b>Dangerous components:</b>		
7647-01-0	hydrogen chloride	<10%
64-18-6	formic acid	<5%
7446-70-0	aluminium chloride, anhydrous	<5%

### 4 First Aid Measures

**Description of first aid measures**

**General information:** Immediately remove any clothing soiled by the product.

**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. Then consult a doctor.

**After swallowing:** Drink copious amounts of water and provide fresh air. Immediately call a 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.

### 5 Firefighting Measures

**Extinguishing media**

**Suitable extinguishing agents:** Use fire fighting measures that suit the environment.

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**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:**

Wear protective equipment. Keep unprotected persons away.

**Environmental precautions:**

Dilute with plenty of water.

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

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

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

Use neutralizing agent.

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

**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>		
7647-01-0	hydrogen chloride	1.8 ppm
64-18-6	formic acid	3 ppm
7446-70-0	aluminium chloride, anhydrous	30 mg/m <sup>3</sup>
<b>PAC-2:</b>		
7647-01-0	hydrogen chloride	22 ppm
64-18-6	formic acid	25 ppm
7446-70-0	aluminium chloride, anhydrous	60 mg/m <sup>3</sup>
<b>PAC-3:</b>		
7647-01-0	hydrogen chloride	100 ppm
64-18-6	formic acid	250 ppm
7446-70-0	aluminium chloride, anhydrous	360 mg/m <sup>3</sup>

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## 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.

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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:

###### 7647-01-0 hydrogen chloride

PEL	Ceiling limit value: 7 mg/m <sup>3</sup> , 5 ppm
REL	Ceiling limit value: 7 mg/m <sup>3</sup> , 5 ppm
TLV	Ceiling limit value: 2.98 mg/m <sup>3</sup> , 2 ppm

###### 64-18-6 formic acid

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 Long-term value: 9.4 mg/m <sup>3</sup> , 5 ppm

###### 7446-70-0 aluminium chloride, anhydrous

REL	Long-term value: 2 mg/m <sup>3</sup> as Al
TLV	Long-term value: 1* mg/m <sup>3</sup> as Al;*as respirable fraction

**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.  
Wash hands before breaks and at the end of work.  
Avoid contact with the eyes.  
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	
<b>General Information</b>	
<b>Appearance</b>	
Form:	Liquid
Color:	Colorless
Odor:	Acidic
Odor threshold:	Not determined.
pH-value:	Not determined.
<b>Change in condition</b>	
Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	100 °C (212 °F)
Flash point:	Not applicable.
Flammability (solid, gaseous):	Not applicable.
<b>Ignition temperature:</b>	
Decomposition temperature:	Not determined.
Auto igniting:	Product is not selfigniting.
Danger of explosion:	Product does not present an explosion hazard.
<b>Explosion limits:</b>	
Lower:	Not determined.
Upper:	Not determined.
Vapor pressure at 20 °C (68 °F):	23 hPa (17 mm Hg)
Density at 20 °C (68 °F):	0 g/cm <sup>3</sup> (0 lbs/gal)
Relative density:	Not determined.
Vapour density:	Not determined.
Evaporation rate:	Not determined.
<b>Solubility in / Miscibility with</b>	
Water:	Fully miscible.
Partition coefficient (n-octanol/water):	Not determined.
Dynamic at 20 °C (68 °F):	0 mPas
Kinematic:	Not determined.
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.

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

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## 11 Toxicology Information

**Information on toxicological effects**
**Acute toxicity:**
**Primary irritant effect:**
**On the skin:** Caustic effect on skin and mucous membranes.

**On the eye:**

Strong caustic effect.

Strong irritant with the danger of severe eye injury.

**Sensitization:** No sensitizing effects known.

**Additional toxicological information:**

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

Corrosive

Irritant

Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

**Carcinogenic categories**

<b>IARC (International Agency for Research on Cancer)</b>	
7647-01-0   hydrogen chloride	3
<b>NTP (National Toxicology Program)</b>	
None of the ingredients are listed.	
<b>OSHA-Ca (Occupational Safety &amp; Health Administration)</b>	
None of the ingredients are listed.	

## 12 Ecological Information

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

**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:**

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.

Must not reach bodies of water or drainage ditch undiluted or unneutralized.

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

**vPvB:** Not applicable.

**Other adverse effects:** No further relevant information available.

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### 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> <b>DOT, ADR, IMDG, IATA</b>	UN3264
<b>UN proper shipping name</b> <b>DOT</b> <b>ADR</b>  <b>IMDG, IATA</b>	Corrosive liquid, acidic, inorganic, n.o.s. (Hydrochloric acid, Formic acid) 3264 Corrosive liquid, acidic, inorganic, n.o.s. (Hydrochloric acid, Formic acid)  CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (HYDROCHLORIC ACID, FORMIC ACID)
<b>Transport hazard class(es)</b> <b>DOT</b>	
	
<b>Class</b> <b>Label</b>	8 Corrosive substances 8
<b>ADR, IMDG, IATA</b>	
	
<b>Class</b> <b>Label</b>	8 Corrosive substances 8
<b>Packing group</b> <b>DOT, ADR, IMDG, IATA</b>	II
<b>Environmental hazards</b>	Not applicable.
<b>Special precautions for user:</b> <b>Danger code (Kemler):</b> <b>EMS Number:</b> <b>Segregation groups</b> <b>Stowage Category</b> <b>Stowage Code</b>	Warning: Corrosive substances 80 F-A,S-B Acids B SW2 Clear of living quarters.
<b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:</b>	Not applicable.

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<b>Transport/Additional information:</b>	
<b>DOT</b>	
<b>Quantity limitations</b>	On passenger aircraft/rail: 1 L On cargo aircraft only: 30 L
<b>ADR</b>	
<b>Excepted quantities (EQ)</b>	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
<b>IMDG</b>	
<b>Limited quantities (LQ)</b>	1L
<b>Excepted quantities (EQ)</b>	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
<b>UN "Model Regulation":</b>	UN 3264 CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (HYDROCHLORIC ACID, 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):**

7647-01-0 | hydrogen chloride

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

7647-01-0 | hydrogen chloride

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.

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

None of the ingredients are listed.

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

7647-01-0 | hydrogen chloride

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<b>NIOSH-Ca (National Institute for Occupational Safety and Health)</b>
None of the ingredients are listed.

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

**Hazard pictograms**



GHS05

**Signal word** Danger

**Hazard-determining components of labeling:**

hydrogen chloride  
aluminium chloride, anhydrous  
formic acid

**Hazard statements**

Causes severe skin burns and eye damage.

**Precautionary statements**

Do not breathe dusts or mists.

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

Wash thoroughly after handling.

If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

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

Immediately call a POISON CENTER/doctor.

Specific treatment (see on this label).

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

Wash contaminated clothing before reuse.

If swallowed: Rinse mouth. Do NOT induce vomiting.

Store locked up.

Dispose of contents/container in accordance with local/regional/national/international regulations.

**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** 03/17/2017 / -

**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

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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)  
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 Corr. 1B: Skin corrosion/irritation – Category 1B  
Eye Dam. 1: Serious eye damage/eye irritation – Category 1

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