

This safety data sheet complies with the requirements of:  
Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008

Issuing Date 28-Jul-2016

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Revision Number 1  
ENG

## Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

### 1.1. Product identifier

**Product Code(s)** LK1-00780401  
**Product Name** Platinum 1,000 mg/L in 5% HCl, 100 mL (Pt Metal)  
**CAS No.** Not applicable

Contains Hydrochloric acid

### 1.2. Relevant identified uses of the substance or mixture and uses advised against

**Recommended Use** Laboratory chemicals  
Production of chemical substance

**Uses advised against** Not for human consumption

### 1.3. Details of the supplier of the safety data sheet

**Manufacturer**  
LabKings B.V  
Utrechtseweg 5, 1213TK Hilversum, The Netherlands  
+31 84 875 63 44  
www.labkings.com

### 1.4. Emergency telephone number

**Emergency Telephone** Chemtrec, Inside the USA: 1-800-424-9300  
Chemtrec, Outside the USA: 001-703-527-3887

Europe	112
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## Section 2: HAZARDS IDENTIFICATION

### 2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

Acute toxicity - Inhalation (Gases)	Category 4 - (H332)
Skin corrosion/irritation	Category 2 - (H315)
Serious eye damage/eye irritation	Category 2 - (H319)
Specific target organ toxicity (single exposure)	Category 3 - (H335)
Corrosive to metals	Category 1 - (H290)

### 2.2. Label elements

Regulation (EC) No 1272/2008  
Contains Hydrochloric acid



**Signal word**  
Warning

**Hazard statements**

H332 - Harmful if inhaled  
H315 - Causes skin irritation  
H319 - Causes serious eye irritation  
May cause respiratory irritation. May cause drowsiness or dizziness  
H290 - May be corrosive to metals

**Precautionary Statements - EU (§28, 1272/2008)**

P321 - Specific treatment (see supplemental first aid instructions on this label)  
P406 - Store in corrosive resistant container with a resistant inner liner

**2.3. Other hazards**

No information available

### Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

**3.1 Substances**

The exact concentration of each component can be found on the Certificate of Analysis

Chemical name	CAS No.	Molecular weight (g/mol)	Weight-%
Water	7732-18-5	18.01	94.9
Hydrochloric acid	7647-01-0	36.46	5
platinum chloride	13454-96-1	531.96	0.1

**3.2 Mixtures**

Chemical name	CAS No.	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Water	7732-18-5	No data available
Hydrochloric acid	7647-01-0	Acute Tox. 3 (H331) Skin Corr. 1A (H314) Press. Gas
platinum chloride	13454-96-1	No data available

**Full text of H- and EUH-phrases: see section 16**

### Section 4: FIRST AID MEASURES

**4.1. Description of first aid measures**

**General advice**

Immediate medical attention may be required. Show this safety data sheet to the doctor in attendance.

**Inhalation**

IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. Administer oxygen if breathing is difficult. Get immediate medical advice/attention.

Eye contact	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.
Skin contact	Wash off immediately with plenty of water for at least 15 minutes. Get medical attention immediately if symptoms occur.
Ingestion	Do not induce vomiting without medical advice. Rinse mouth thoroughly with water. Get immediate medical advice/attention.

#### **4.2. Most important symptoms and effects, both acute and delayed**

Symptoms	Skin irritation. Burning. Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation. Eye irritation.
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#### **4.3. Indication of any immediate medical attention and special treatment needed**

Note to physicians	Treat symptomatically.
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### **Section 5: FIRE-FIGHTING MEASURES**

#### **5.1. Extinguishing media**

Suitable Extinguishing Media	Dry chemical, CO <sub>2</sub> , alcohol-resistant foam or water spray. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
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Unsuitable extinguishing media	No information available.
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#### **5.2. Special hazards arising from the substance or mixture**

Specific hazards arising from the chemical	Thermal decomposition can lead to release of irritating gases and vapors. The product causes burns of eyes, skin and mucous membranes.
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Hazardous combustion products	Hydrogen chloride. Chlorine gas.
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#### **5.3. Advice for firefighters**

Special protective equipment for fire-fighters	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.
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### **Section 6: ACCIDENTAL RELEASE MEASURES**

#### **6.1. Personal precautions, protective equipment and emergency procedures**

Personal precautions	Ensure adequate ventilation. Avoid breathing dust/fume/gas/mist/vapors/spray. Avoid contact with skin, eyes or clothing. Wear protective gloves/protective clothing and eye/face protection. Handle within a fume cupboard or implement suitable equivalent methods to minimize exposure.
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For emergency responders	Use personal protection recommended in Section 8.
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#### **6.2. Environmental precautions**

Environmental precautions	See Section 12 for additional Ecological Information.
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#### **6.3. Methods and material for containment and cleaning up**

Methods for containment	Prevent further leakage or spillage if safe to do so.
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**Methods for cleaning up** Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Place in appropriate chemical waste container.

**Prevention of secondary hazards** Clean contaminated objects and areas thoroughly observing environmental regulations.

#### 6.4. Reference to other sections

**Reference to other sections** See section 8 for more information. See section 13 for more information.

## Section 7: HANDLING AND STORAGE

### 7.1. Precautions for safe handling

**Advice on safe handling** Avoid contact with skin, eyes or clothing. Do not breathe dust/fume/gas/mist/vapors/spray. Ensure adequate ventilation. Use personal protection equipment. Handle in a fume cupboard. Wash thoroughly after handling. Do not eat, drink or smoke when using this product.

**General hygiene considerations** Handle in accordance with good industrial hygiene and safety practice.

### 7.2. Conditions for safe storage, including any incompatibilities

**Storage Conditions** Keep containers tightly closed in a dry, cool and well-ventilated place. For more information, see product label and/or certificate of analysis.

### 7.3. Specific end use(s)

**Risk Management Methods (RMM)** The information required is contained in this Material Safety Data Sheet.

## Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1. Control parameters

#### Exposure Limits

Chemical name	European Union	United Kingdom	France	Spain	Germany
Hydrochloric acid 7647-01-0	TWA 5 ppm TWA 8 mg/m <sup>3</sup> STEL 10 ppm STEL 15 mg/m <sup>3</sup>	TWA: 1 ppm TWA: 2 mg/m <sup>3</sup> STEL: 5 ppm STEL: 8 mg/m <sup>3</sup>	STEL: 5 ppm STEL: 7.6 mg/m <sup>3</sup>	TWA: 5 ppm TWA: 7.6 mg/m <sup>3</sup> STEL: 10 ppm STEL: 15 mg/m <sup>3</sup>	TWA: 2 ppm TWA: 3 mg/m <sup>3</sup>
platinum chloride 13454-96-1	-	TWA: 0.002 mg/m <sup>3</sup>	-	-	-
Chemical name	Italy	Portugal	Netherlands	Finland	Denmark
Hydrochloric acid 7647-01-0	TWA: 5 ppm TWA: 8 mg/m <sup>3</sup> STEL: 10 ppm STEL: 15 mg/m <sup>3</sup>	TWA: 5 ppm TWA: 8 mg/m <sup>3</sup> STEL: 10 ppm STEL: 15 mg/m <sup>3</sup> Ceiling: 2 ppm	TWA: 8 mg/m <sup>3</sup> STEL: 15 mg/m <sup>3</sup>	STEL: 5 ppm STEL: 7.6 mg/m <sup>3</sup>	Ceiling: 5 ppm Ceiling: 8 mg/m <sup>3</sup>
platinum chloride 13454-96-1	-	TWA: 0.002 mg/m <sup>3</sup>	-	TWA: 0.002 mg/m <sup>3</sup>	-
Chemical name	Austria	Switzerland	Poland	Norway	Ireland
Hydrochloric acid 7647-01-0	TWA: 5 ppm TWA: 8 mg/m <sup>3</sup> STEL 10 ppm STEL 15 mg/m <sup>3</sup>	TWA: 2 ppm TWA: 3.0 mg/m <sup>3</sup> STEL: 4 ppm STEL: 6 mg/m <sup>3</sup>	STEL: 10 mg/m <sup>3</sup> TWA: 5 mg/m <sup>3</sup>	Ceiling: 5 ppm Ceiling: 7 mg/m <sup>3</sup>	TWA: 5 ppm TWA: 8 mg/m <sup>3</sup> STEL: 10 ppm STEL: 15 mg/m <sup>3</sup>
platinum chloride	TWA: 0.002 mg/m <sup>3</sup>	TWA: 0.002 mg/m <sup>3</sup>	-	-	TWA: 0.002 mg/m <sup>3</sup>

13454-96-1					STEL: 0.006 mg/m <sup>3</sup>
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**Derived No Effect Level (DNEL)** No information available.

**Predicted No Effect Concentration (PNEC)** No information available.

## 8.2. Exposure controls

**Engineering controls** Apply technical measures to comply with the occupational exposure limits. Showers, eyewash stations, and ventilation systems. Ensure that eyewash stations and safety showers are close to the workstation location.

### Personal protective equipment

**Eye/face protection** Wear safety glasses with side shields (or goggles). Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

**Hand Protection** Protective gloves. Ensure that the breakthrough time of the glove material is not exceeded. Refer to glove supplier for information on breakthrough time for specific gloves. Wash hands thoroughly after handling.

**Skin and body protection** Wear suitable protective clothing. Chemical resistant apron. Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

**Respiratory protection** Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

**General hygiene considerations** Handle in accordance with good industrial hygiene and safety practice.

**Environmental exposure controls** No information available.

## Section 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1. Information on basic physical and chemical properties

**Physical state** Liquid  
**Appearance** May vary  
**Odor** May vary.  
**Color** May vary  
**Odor threshold** No information available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	1-2	None known
Melting point / freezing point	0°C	None known
Boiling point / boiling range	100° C	None known
Flash point	No data available	None known
Evaporation rate	No data available	None known
Flammability (solid, gas)	No data available	None known
Flammability Limit in Air		None known
Upper flammability limit:	No data available	
Lower flammability limit:	No data available	
Vapor pressure	23 hPa (17 mm Hg)	None known
Vapor density	No data available	None known
Relative density	No data available	None known

Water solubility	Miscible in water	None known
Solubility(ies)	No data available	None known
Partition coefficient	No data available	None known
Autoignition temperature	No data available	None known
Decomposition temperature	No data available	None known
Kinematic viscosity	No data available	None known
Dynamic viscosity	No data available	None known
Explosive properties	No information available	
Oxidizing properties	No information available	

## 9.2. Other information

Softening point	No information available
Molecular weight (g/mol)	No information available
VOC Content (%)	No information available
Liquid Density	No information available
Bulk density	No information available
Particle Size	No information available
Particle Size Distribution	No information available

## Section 10: STABILITY AND REACTIVITY

### 10.1. Reactivity

Reactivity	Stable under normal conditions.
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### 10.2. Chemical stability

Stability	Stable under normal conditions.
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#### Explosion data

Sensitivity to Mechanical Impact None.

Sensitivity to Static Discharge None.

### 10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	Contact with metals may evolve flammable hydrogen gas.
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### 10.4. Conditions to avoid

Conditions to avoid	Incompatible materials.
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### 10.5. Incompatible materials

Incompatible materials	Metals. Sodium hypochlorite. Amines. Bases. Strong oxidizing agents. Alkali.
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### 10.6. Hazardous decomposition products

Hazardous decomposition products	Hydrogen chloride.
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## Section 11: TOXICOLOGICAL INFORMATION

### 11.1. Information on toxicological effects

#### Information on likely routes of exposure

#### Product Information

Inhalation	Specific test data for the substance or mixture is not available.
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<b>Eye contact</b>	Specific test data for the substance or mixture is not available.
<b>Skin contact</b>	Specific test data for the substance or mixture is not available.
<b>Ingestion</b>	Specific test data for the substance or mixture is not available.

**Information on toxicological effects**

<b>Symptoms</b>	Burning. Skin irritation. Eye irritation. Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting. Ingestion causes burns of the upper digestive and respiratory tracts. Probable mucosal damage may contraindicate the use of gastric lavage. Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation.
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**Numerical measures of toxicity****Acute toxicity**

The following values are calculated based on chapter 3.1 of the GHS document

<b>ATEmix (oral)</b>	2,380.00 mg/kg
<b>ATEmix (dermal)</b>	50,150.10 mg/kg
<b>ATEmix (inhalation-gas)</b>	5,633.02 ppm
<b>ATEmix (inhalation-dust/mist)</b>	5.01 mg/l

<b>Unknown acute toxicity</b>	10 % of the mixture consists of ingredient(s) of unknown toxicity.
	0 % of the mixture consists of ingredient(s) of unknown acute oral toxicity.
	0 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity.
	0 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas).
	10 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor).
	0 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist).

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Water	> 90 mL/kg ( Rat )		
Hydrochloric acid	238 - 277 mg/kg ( Rat )	> 5010 mg/kg ( Rabbit )	= 1.68 mg/L ( Rat ) 1 h
platinum chloride	= 276 mg/kg ( Rat )		

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

<b>Skin corrosion/irritation</b>	Irritating to skin.
<b>Serious eye damage/eye irritation</b>	Irritating to eyes. Risk of serious damage to eyes.
<b>Respiratory or skin sensitization</b>	No information available.
<b>Germ cell mutagenicity</b>	No information available.
<b>Carcinogenicity</b>	No information available.
<b>Reproductive toxicity</b>	No information available.
<b>STOT - single exposure</b>	No information available.
<b>STOT - repeated exposure</b>	No information available.
<b>Aspiration hazard</b>	No information available.

## Section 12: ECOLOGICAL INFORMATION

## 12.1. Toxicity

**Ecotoxicity** The environmental impact of this product has not been fully investigated. Should not be released into the environment.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Hydrochloric acid	-	282: 96 h Gambusia affinis mg/L LC50 static	-	-

## 12.2. Persistence and degradability

**Persistence and degradability** No information available.

## 12.3. Bioaccumulative potential

**Bioaccumulation** No information available.

## 12.4. Mobility in soil

**Mobility in soil** No information available.

**Mobility** Soluble in water.

## 12.5. Results of PBT and vPvB assessment

**PBT and vPvB assessment** No information available.

## 12.6. Other adverse effects

**Other adverse effects** No information available.

# Section 13: DISPOSAL CONSIDERATIONS

## 13.1. Waste treatment methods

**Waste from residues/unused products** Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

**Contaminated packaging** Do not reuse empty containers.

# Section 14: TRANSPORT INFORMATION

## IMDG

14.1 UN/ID no. UN3264  
 14.2 Proper shipping name Corrosive liquid, acidic, inorganic, n.o.s.  
 14.3 Hazard Class 8  
 14.4 Packing Group II  
 14.5 Marine pollutant No information available  
 14.6 Special Provisions No information available  
 14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code No information available

## RID

14.1 UN/ID no. UN3264



14.2 Proper shipping name	Corrosive liquid, acidic, inorganic, n.o.s.
14.3 Hazard Class	8
14.4 Packing Group	II
14.5 Environmental hazard	No information available
14.6 Special Provisions	No information available

#### ADR

14.1 UN/ID no.	UN3264
14.2 Proper shipping name	Corrosive liquid, acidic, inorganic, n.o.s.
14.3 Hazard Class	8
14.4 Packing Group	II
14.5 Environmental hazard	No information available
14.6 Special Provisions	No information available

#### IATA

14.1 UN/ID no.	UN3264
14.2 Proper shipping name	Corrosive liquid, acidic, inorganic, n.o.s.
14.3 Hazard Class	8
14.4 Packing Group	II
14.5 Environmental hazard	No information available
14.6 Special Provisions	No information available

## Section 15: REGULATORY INFORMATION

### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

#### European Union

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

#### Authorizations and/or restrictions on use:

This product does not contain substances subject to authorization (Regulation (EC) No. 1907/2006 (REACH), Annex XIV) This product does not contain substances subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

#### Persistent Organic Pollutants

Not applicable

#### Named dangerous substances per Seveso Directive (2012/18/EU)

Chemical name	Lower-tier requirements (tons)	Upper-tier requirements (tons)
Hydrochloric acid - 7647-01-0	25	250

Ozone-depleting substances (ODS) regulation (EC) 1005/2009 Not applicable

#### International Inventories

TSCA	Complies
DSL/NDL	Complies
EINECS/ELINCS	Complies
ENCS	Does not comply
IECSC	Complies
KECL	Complies
PICCS	Complies
AICS	Complies

#### Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances  
KECL - Korean Existing and Evaluated Chemical Substances  
PICCS - Philippines Inventory of Chemicals and Chemical Substances  
AICS - Australian Inventory of Chemical Substances

#### 15.2. Chemical safety assessment

**Chemical Safety Report** A Chemical Safety Assessment has not been carried out for this substance

### Section 16: OTHER INFORMATION

#### Key or legend to abbreviations and acronyms used in the safety data sheet

##### Full text of H-Statements referred to under section 3

H331 - Toxic if inhaled

H314 - Causes severe skin burns and eye damage

##### Legend

SVHC: Substances of Very High Concern for Authorization:

##### Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation

**Issuing Date** 28-Jul-2016

**Revision Date** 28-Jul-2016

**Reason for revision** SDS sections updated

**This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006**

##### Disclaimer

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 given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet