Safety Data Sheet

US-SDS according to the federal final rule of hazard communication revised on 2012 (HazCom 2012) Issue date: 8/21/2023 Version: 1.0

SECTION 1: Identification

1.1. Identification

Product form : Mixture

Product name : 18K Gold Plating Pen PL-1004

Other means of identification : PL-1004 Plating Pen

1.2. Recommended use and restrictions on use

No additional information available

1.3. Supplier

Hunter Products, Inc 36 Madison Avenue Flemington, NJ 08822 T 908-526-8440

1.4. Emergency telephone number

Emergency number : 001 908 581 1499

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Acute toxicity (oral) Category 3

Acute toxicity (inhalation:dust,mist) Category 4

Skin corrosion/irritation Category 2

Serious eye damage/eye irritation Category 1

Toxic if swallowed Harmful if inhaled Causes skin irritation Causes serious eye damage

2.2. GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US)





Signal word (GHS US) : Danger

Hazard statements (GHS US) : Toxic if swallowed

Causes skin irritation
Causes serious eye damage

Harmful if inhaled

Precautionary statements (GHS US) : Avoid breathing mist, vapors, spray.

Wash hands, forearms and face thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area.

Wear protective gloves, eye protection.

If swallowed: Immediately call a POISON CENTER, a doctor.

If on skin: Wash with plenty of soap and water.

If inhaled: Remove person to fresh air and keep comfortable for breathing.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present

and easy to do. Continue rinsing.

Immediately call a doctor, a POISON CENTER.
Call a POISON CENTER, a doctor if you feel unwell.

Rinse mouth.

If skin irritation occurs: Get medical advice/attention.

Safety Data Sheet

US-SDS according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

Take off contaminated clothing and wash it before reuse.

Store locked up.

Dispose of contents/container to an approved waste disposal plant.

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%
Diammonium hydrogen 2-hydroxypropane-1,2,3-tricarboxylate	CAS-No.: 3012-65-5	15 – 20
Potassium dicyanoaurate	CAS-No.: 13967-50-5	1 – 2
Potassium dicyanoargentate	CAS-No.: 506-61-6	0.1 – 1

The specific chemical\ component identities and/or the exact component percentages of this material may be withheld as trade secrets.

This information is made available to health professionals, employees, and designated representatives in accordance with the applicable provisions of 29 CFR 1910.1200 (I)(1). Trace ingredients (if any) are present in < 1% concentration, (< 0.1% for potential carcinogens, mutagen, and reproductive toxicant, respiratory tract and skin sensitizers in addition to oral/ inhalation acute toxicant in category 1 and 2). None of the trace ingredients contribute significant additional hazards at the concentrations that may be present in this product. All pertinent hazard information has been provided in this document, per the requirements of the Federal Occupational Safety and Health Administration Standard (29 CFR 1910.1200), U.S. State equivalents.

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures general : Call a physician immediately.

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Call a poison

center/doctor/physician if you feel unwell.

First-aid measures after skin contact : Wash skin with plenty of water. Take off contaminated clothing. If skin irritation occurs: Get

medical advice/attention.

First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to

do. Continue rinsing. Call a physician immediately.

First-aid measures after ingestion : Rinse mouth. Call a physician immediately.

4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects after skin contact : Irritation.

Symptoms/effects after eye contact : Serious damage to eyes.

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.

5.2. Specific hazards arising from the chemical

Hazardous decomposition products in case of fire : Toxic fumes may be released.

8/21/2023 (Issue date) US - en 2/9

Safety Data Sheet

US-SDS according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

5.3. Special protective equipment and precautions for fire-fighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing

apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area. Avoid breathing mist, spray, vapors. Avoid contact with skin and eyes.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer

to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Take up liquid spill into absorbent material.

Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Use only outdoors or in a well-ventilated area. Avoid breathing mist, spray, vapors. Avoid contact

with skin and eyes. Wear personal protective equipment.

Hygiene measures : Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product.

Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store locked up. Store in a well-ventilated place. Keep cool.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

18K Gold Plating Pen PL-1004

No additional information available

Potassium dicyanoaurate (13967-50-5)

No additional information available

Potassium dicyanoargentate (506-61-6)

No additional information available

Diammonium hydrogen 2-hydroxypropane-1,2,3-tricarboxylate (3012-65-5)

No additional information available

8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.

Environmental exposure controls : Avoid release to the environment.

8/21/2023 (Issue date) US - en 3/9

Safety Data Sheet

US-SDS according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

8.3. Individual protection measures/Personal protective equipment

Hand protection:

Protective gloves

Eye protection:

Safety glasses

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

[In case of inadequate ventilation] wear respiratory protection.

Personal protective equipment symbol(s):







SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid

Appearance : Device containing liquid.

Color : Colorless

Odor : Mixture contains one or more component(s) which have the following odour:

Odor threshold No data available рΗ : No data available Melting point Less than water Freezing point No data available Boiling point Greater than water Flash point No data available Relative evaporation rate (butyl acetate=1) No data available Flammability Not applicable.

Vapor pressure No data available Relative vapor density at 20°C No data available Relative density No data available Solubility Soluble in water. Partition coefficient n-octanol/water (Log Pow) No data available Auto-ignition temperature No data available Decomposition temperature No data available Viscosity, kinematic No data available No data available Viscosity, dynamic **Explosion limits** No data available Explosive properties Not classified. Oxidizing properties Not oxidising.

9.2. Other information

No additional information available

Safety Data Sheet

US-SDS according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Toxic if swallowed.
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Harmful if inhaled.

18K Gold Plating Pen PL-1004	
ATE US (oral)	250 mg/kg body weight
ATE US (dust, mist)	2.5 mg/l/4h
Potassium dicyanoaurate (13967-50-5)	
LD50 dermal rat	> 2000 mg/kg body weight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity), Guideline: EU Method B.3 (Acute Toxicity (Dermal))
ATE US (oral)	5 mg/kg body weight
ATE US (dermal)	50 mg/kg body weight
ATE US (dust, mist)	0.05 mg/l/4h
Skin corrosion/irritation	: Causes skin irritation.
Serious eye damage/irritation	: Causes serious eye damage.
Respiratory or skin sensitization	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified

Potassium dicyanoaurate (13967-50-5)	
NOAEL (oral,rat,90 days)	3 mg/kg body weight Animal: rat, Guideline: OECD Guideline 422 (Combined Repeated Dose
	Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)

Safety Data Sheet

US-SDS according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

Potassium dicyanoaurate (13967-50	0-5)
Potassium dicyanoargentate (506-6	1-6)
NOAEL (oral,rat,90 days)	10 mg/kg body weight Animal: rat, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test), Guideline: EU Method B.7 (Repeated Dose (28 Days) Toxicity (Oral))

Aspiration hazard : Not classified Viscosity, kinematic : No data available

Symptoms/effects after skin contact : Irritation.

Symptoms/effects after eye contact : Serious damage to eyes.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms or to cause long-term adverse

effects in the environment.

Potassium dicyanoaurate (13967-50-5)		
LC50 - Fish [1]	5.7 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri)	
EC50 - Crustacea [1]	0.2 mg/l Test organisms (species): Daphnia magna	
Potassium dicyanoargentate (506-61-6)		
LC50 - Fish [1]	3.3 mg/l Test organisms (species): Pimephales promelas	
EC50 - Crustacea [1]	0.022 mg/l Test organisms (species): Daphnia magna	

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

SECTION 14: Transport information

In accordance with DOT / IMDG / IATA

14.1. UN number

DOT NA No : UN3546 UN-No. (IMDG) : 3546 UN-No. (IATA) : 3546

14.2. UN proper shipping name

Proper Shipping Name (DOT) : Articles containing toxic substance, n.o.s. (CONTAINS : Potassium dicyanoaurate)

8/21/2023 (Issue date) US - en 6/9

Safety Data Sheet

US-SDS according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

Proper Shipping Name (IMDG) : ARTICLES CONTAINING TOXIC SUBSTANCE, N.O.S. (CONTAINS : Potassium

dicyanoaurate)

Proper Shipping Name (IATA) : Articles containing toxic substance, n.o.s. (CONTAINS : Potassium dicyanoaurate)

14.3. Transport hazard class(es)

DOT

Transport hazard class(es) (DOT) : 6.1

IMDG

Transport hazard class(es) (IMDG) : 6.1 Hazard labels (IMDG) : 6.1



IATA

Transport hazard class(es) (IATA) : 6.1

14.4. Packing group

Packing group (DOT) : Not applicable
Packing group (IMDG) : Not applicable
Packing group (IATA) : Not applicable

14.5. Environmental hazards

Other information : No supplementary information available.

14.6. Special precautions for user

DOT

UN-No.(DOT) : UN3546

DOT Special Provisions (49 CFR 172.102) : 391 - Except for articles being transported by motor vehicle as a material of trade in accordance

with 173.6 of this subchapter, articles containing hazardous materials of Division 2.3, or Division 4.2, or Division 4.3, or Division 5.1, or Division 5.2, or Division 6.1 (substances with an inhalation toxicity of Packing Group I) and articles containing more than one of the following hazards: (1) Gases of Class 2; (2) Liquid desensitized explosives of Class 3; or (3) Self-reactive substances and solid desensitized explosives of Division 4.1, may only be offered for transportation and

transported under conditions approved by the Associate Administrator.

DOT Packaging Non Bulk (49 CFR 173.xxx) : 232

DOT Packaging Bulk (49 CFR 173.xxx) : 232

DOT Quantity Limitations Passenger aircraft/rail (49 : Forbidden

CFR 173.27)

DOT Quantity Limitations Cargo aircraft only (49 : Forbidden

CFR 175.75)

DOT Vessel Stowage Location : B - (i) The material may be stowed "on deck" or "under deck" on a cargo vessel and on a

passenger vessel carrying a number of passengers limited to not more than the larger of 25 passengers, or one passenger per each 3 m of overall vessel length; and (ii) "On deck only" on passenger vessels in which the number of passengers specified in paragraph (k)(2)(i) of this

section is exceeded.

IMDG

Special provision (IMDG) : 274, 391
Limited quantities (IMDG) : 0
Excepted quantities (IMDG) : E0

EmS-No. (Fire) : F-A - FIRE SCHEDULE Alfa - GENERAL FIRE SCHEDULE EmS-No. (Spillage) : S-A - SPILLAGE SCHEDULE Alfa - TOXIC SUBSTANCES

Stowage category (IMDG) : B

8/21/2023 (Issue date) US - en 7/9

Safety Data Sheet

US-SDS according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

Properties and observations (IMDG) : Toxic if swallowed, by skin contact or by dust inhalation. *When competent authority approval is

required by SP391, the stowage and handling will be specified by the competent authority.

IATA

PCA Limited quantities (IATA) Forbidden PCA limited quantity max net quantity (IATA) : Forbidden PCA packing instructions (IATA) : Forbidden PCA max net quantity (IATA) : Forbidden CAO packing instructions (IATA) : Forbidden CAO max net quantity (IATA) : Forbidden : A2 Special provision (IATA) ERG code (IATA) 6L

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

All components of this product are present and listed as Active on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

This product or mixture is not known to contain a toxic chemical or chemicals in excess of the applicable de minimis concentration as specified in 40 CFR §372.38(a) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

Potassium dicyanoargentate (506-61-6)	
CERCLA RQ	1 lb
RQ (Reportable quantity, section 304 of EPA's List of Lists)	1 lb
SARA Section 302 Threshold Planning Quantity (TPQ)	500 lb

Diammonium hydrogen 2-hydroxypropane-1,2,3-tricarboxylate (3012-65-5)	
CERCLA RQ	5000 lb

15.2. International regulations

No additional information available

15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

Component	State or local regulations
Potassium dicyanoargentate(506-61-6)	U.S Massachusetts - Right To Know List; U.S New Jersey - Right to Know Hazardous Substance List; U.S New York City - Right to Know Hazardous Substances List; U.S Pennsylvania - RTK (Right to Know) List
Diammonium hydrogen 2-hydroxypropane-1,2,3-tricarboxylate(3012-65-5)	U.S Massachusetts - Right To Know List; U.S New Jersey - Right to Know Hazardous Substance List; U.S New York City - Right to Know Hazardous Substances List; U.S Pennsylvania - RTK (Right to Know) List

Safety Data Sheet

US-SDS according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

SECTION 16: Other information

US-SDS according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

ICSDS SDS USA

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.