

Safety Data Sheet (SDS)

Printing date 1/26/2015

Prepared on 1/26/2015

1. Product and Company Identification

This product is considered to meet the definition of an "article". This Safety Data Sheet includes the information and is written based on the encapsulated substance or mixture in this article.

- **Product identifier**
- **Trade name: Metal Deletion Pen "Type K"**
- **Item Number/Size/"ink" Content:**
135-6/Fine/1mL, 135-7/Large/5mL, 135-8/Medium/2mL, 135-11/XLarge/6mL
- **Relevant identified uses of the substance or mixture and uses advised against**
Image Deletion Pen for Lithographic Printing Plates
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Nikken Chemical Laboratory Co., Ltd.
Sakae 2-16-1, Naka-Ku, Nagoya, Aichi 460-0008, Japan
overseas@nikken-chemical.co.jp www.nikken-chemical.co.jp
- **Emergency telephone number:** Infotrac: 1-800-535-5053, 1-352-326-2510

2. Hazard(s) identification

This product is considered to meet the definition of an "article". This Safety Data Sheet includes the information and is written based on the encapsulated substance or mixture in this article.

EMERGENCY OVERVIEW (for the "ink" substances contained within this pen-type article)

An "Ink" less than 10mL contained in this article is a clear, colorless liquid. The substance is very toxic and CORROSIVE and may produce acrid smoke or fumes in fire conditions. Wear equipment to protect eyes, skin and respiratory tract. Dike or absorb spills to keep the substance and run-off from entering sewer or waterways. Use water spray to cool and disperse vapors.
Special handling & workplace: NEVER LICK THE PEN TIP. Avoid contact with skin & eyes. Do not smoke, eat or drink in the workplace. Wash hands thoroughly with soap and water after handling this article. Remove contaminated clothing immediately. Ventilation in work area should be sufficient. Do not take internally. Keep the pen tightly capped when not in use. Do not carry the pen in your pocket. For industrial use only. Keep out of the reach of children.

- **GHS classification and label elements of the product:** Not applicable
- This article is not classified as hazardous under the Globally Harmonized Systems of Classification and Labeling of Chemicals (GHS) as well as the OSHA Hazard Communication Standard and the Health Canada Workplace Hazardous Materials Information Standard. The reasons for the exemptions are published and contained in the GHS (ST/SG/AC.10/30/Rev.4), 29 CFR 1910.1200(b)(6)(ix) as amended Sept 14, 2009 per the Code of Federal Regulations and Canadian Hazardous Products Act part 12 section (f) as amended June 1, 2009.
- This article, when used under reasonable conditions and in accordance with the directions for use, should not present a health hazard. Only if released or exposed due to use of the article in a manner not in accordance with the product's directions for use and handling precautions in the workplace it may present potential health and environmental risks.
- The information contained in this SDS is forwarded to you for your information, but is not meant to imply that the product is covered by nor is this SDS meant to comply with all requirements of the hazard communication standards.

3. Composition/information on ingredients

This product is considered to meet the definition of an "article". This Safety Data Sheet includes the information and is written based on the encapsulated substance or mixture in this article.

- **Substance/Preparation:** Ingredients contained within pen-type article for reference

Ingredient name	content(%)	CAS No.	ECNO
Benzyl alcohol	20 - 30	100-51-6	202-859-9
Tetrahydrofuran	40 - 50	109-99-9	203-726-8
Hydrofluoric acid	5 - 10	7664-39-3	231-634-8
Water	20 - 30	7732-18-5	231-791-2

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4. First-aid measures

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· **General information:**

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

· **IF INHALED:**

Remove victim to fresh air and keep at rest in a position comfortable for breathing.

· **IF ON SKIN(or hair):**

Take off immediately all contaminated clothing. Rinse skin with water/shower.

Wash with plenty of soap and water. Get medical help if rash, redness or irritation develops.

· **IF IN EYES:**

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing. Get medical help.

If eye irritation persists: Get medical advice/attention.

· **IF SWALLOWED:**

Rinse mouth. Do NOT induce vomiting.

Immediately call a POISON CENTER or doctor/physician.

NOTE TO PHYSICIAN: Eye exposure to Hydrofluoric acid requires continuous irrigation and immediate ophthalmologist referral. Medical treatment for dermal exposure may include the topical use of 2.5% calcium gluconate gel, benzalkonium chloride (Zephiran) solution (1:750) soaks, and/or 10% calcium gluconate intradermally. Electrocardiographic monitoring is necessary after ingestion, inhalation, or significant dermal exposure due to potential for hypocalcemia and resultant cardiac dysrhythmias.

5. Fire-fighting measures

· **Suitable extinguishing media:**

Use appropriate extinguishing media suitable for surrounding facilities.

6. Accidental release measures

Sweep up, place in a bag and hold for waste disposal.

7. Handling and storage

· **Precautions for safe handling**

· **Preventive measures:**

(Exposure Control for handling personnel)

Avoid contact with skin and eyes.

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

Never lick the pen tip. Do not eat, drink in the workplace.

Wash hands thoroughly with soap and water after handling this article.

Avoid breathing dust/fume/gas/mist/vapours/spray.

(Protective measures against fire & explosion)

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

· **Safety Measures/Incompatibility:**

Use only outdoors or in a well-ventilated area.

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

· **Conditions for safe storage, including any incompatibilities**

· **Recommendation for storage:**

Store in well-ventilated place. Keep pen tightly capped and closed. Keep cool.



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8. Exposure controls/personal protection

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Control parameters e.g. occupational exposure limit values or biological limit values

Adopted value

(Hydrofluoric acid)

ACGIH(2004) TWA: 0.5ppm

STEL: C 2ppm (URT, LRT, skin & eye irr; fluorosis)

(Tetrahydrofuran)

ACGIH(2002) TWA: 50ppm

STEL: 100ppm (URT irr; CNS impair; kidney dam)

Notation

(Hydrofluoric acid)

Skin

(Tetrahydrofuran)

Skin

OSHA-PEL

(Hydrofluoric acid)

TWA 3ppm

(Tetrahydrofuran)

TWA 200ppm, 590mg/m³

NIOSH-REL

(Tetrahydrofuran)

TWA 200ppm, 590mg/m³; STEL 250ppm, 735mg/m³

(Hydrofluoric acid)

TWA 3ppm, 2.5mg/m³; C 6ppm, 5mg/m³

· **Safety and Health measures:**

Do not get in eyes, on skin, or on clothing.

Wash contaminated parts thoroughly after handling.

Do not eat, drink or smoke when using this product.

Take off immediately all contaminated clothing and wash it before reuse.

Wash contaminated clothing before reuse.

9. Physical and chemical properties

· **Physical properties**

Appearance: Articles containing less than group II or III 10 ml of a packing no free visible flammable liquid absorbed into a solid material

10. Stability and reactivity

· **Stability:** Stable under normal storage/handling conditions.

11. Toxicological information

This product is considered to meet the definition of an "article". This Safety Data Sheet includes the information and is written based on the encapsulated substance or mixture in this article.

· **Symptoms related to the physical, chemical and toxicological characteristics:**

No Teratogenic effects data available

Carcinogenic effects

(Tetrahydrofuran)

ACGIH-A3(2002) : Confirmed Animal Carcinogen with Unknown Relevance to Humans

No Toxicity for reproduction data available

No Aspiration hazard data available

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12. Ecological information

This product is considered to meet the definition of an "article". This Safety Data Sheet includes the information and is written based on the encapsulated substance or mixture in this article.

- **Ecotoxicity**
- **Water solubility:**
(Benzyl alcohol)
4 g/100 ml (ICSC, 2000)
(Tetrahydrofuran)
miscible (ICSC, 1997)
(Hydrofluoric acid)
very good (ICSC, 2000)
No Persistence and degradability data available
Bioaccumulative potential
(Benzyl alcohol)
log Pow=1.1 (ICSC, 2000)
No Mobility in soil data available
Ozone depleting chemical data not available

13. Disposal considerations

- **Disposal methods:**
Avoid release to the environment (- if this is not the intended use).
Dispose of contents/container in accordance with local/national regulation.

14. Transport information

- **Regulatory information:**
- UN No, UN CLASS : Not applicable in accordance with following special provisions
Special provisions 216 designated on UN NO. 3175 (SOLIDS CONTAINING FLAMMABLE LIQUID, N.O.S.)
Mixtures of solids which are not subject to these Regulations and flammable liquids may be transported under this entry without first applying the classification criteria of Division 4.1, provided there is no free liquid visible at the time the substance is loaded or at the time the packaging or cargo transport unit is closed. Each cargo transport unit shall be leakproof when used as a bulk packaging. Sealed packets and articles containing less than group II or III 10 ml of a packing flammable liquid absorbed into a solid material are not subject to these Regulations provided there is no free liquid in the packet or article.
- DOT Hazard Classification: Not Regulated.
- IATA Classification: Not Regulated.
- ICAO Classification: Not Regulated.
- IMO Classification: Not Regulated.
- TDG hazard Classification: Not Regulated.

15. Regulatory information

This product is considered to meet the definition of an "article". This Safety Data Sheet includes the information and is written based on the encapsulated substance or mixture in this article.

- GHS classification and labeling: Not applicable
 - US major regulations:
 - TSCA
- Benzyl alcohol; Tetrahydrofuran; Hydrofluoric acid; Water

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16. Other information

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· Reference Book

Globally Harmonized System of classification and labelling of chemicals, (4th ed., 2011), UN
Recommendations on the TRANSPORT OF DANGEROUS GOODS 18th edit., 2013 UN
Classification, labelling and packaging of substances and mixtures (table3-1 ECNO6182012)
2012 EMERGENCY RESPONSE GUIDEBOOK(US DOT)

2014 TLVs and BEIs. (ACGIH)

<http://monographs.iarc.fr/ENG/Classification/index.php>

Supplier's data/information

Notice to reader

Disclaimer: The information contained in this SDS is forwarded to you for your information, but is not meant to imply that this article is covered by nor is this SDS meant to comply with all requirements of the hazard communication standards. All information appearing herein is based upon Data obtained from Manufacturer and/or recognized technical sources. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the material are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use, disposal of the material. It is the user's responsibility to satisfy oneself as to the suitability and completeness of this information for his own particular use. The information contained in this SDS represents the best information currently available to us. However, neither Nikken Chemical Laboratory Co., Ltd., nor any of its distributors assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist. It is advised to make their own tests to determinate the safety and suitability of each such product or combination for their own purposes.

The GHS classification data given here is based on current EU official data.