

137-1/Medium/2mL,
137-2/XLarge/6mL

SAFETY DATA SHEET

Issuing Date: 18-Jun-2019

Version 1

Thermal Deletion Pen- Medium/Extra Large

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name Thermal Deletion Pen- Medium/Extra Large

Product code 137-1/Medium/2mL, 137-2/XLarge/6mL

SAP Number 900012093

Product Use Graphic Arts Product.

Manufactured by
Nikken Chemical Laboratory Co., Ltd.
Sakae 2-16-1, Naka-Ku
Nagoya, Aichi 460-0008, Japan

Distributed in the USA by
FUJIFILM North American Corporation,
Graphic Systems Division
200 Summit Lake Drive
Valhalla, NY 10595-1356

Distributed in Canada by
FUJIFILM Canada, Inc.
600 Suffolk Ct.
Mississauga, Ontario L5R 4G4

SDSs are available at the following website(s): <https://www.fujifilmusa.com/support/msds/search>

Company Phone Number U.S.A: 800-473-3854 Canada: 800-263-5018

Emergency Telephone Transport-CHEMTREC Inside NA: 800-424-9300
Transport-CHEMTREC Outside NA: 703-527-3887
Transport-CANUTEC Inside Canada: 613-996-6666
Medical Emergency (24 hour): 877-935-7387

E-mail EHS@fujifilm.com

2. HAZARDS IDENTIFICATION

Classification

Not a dangerous substance or mixture according to the Globally Harmonized System (GHS). This product is an article which contains a chemical substance. Safety information is given for exposure to the article as sold, but considers exposure to the chemical if user has direct eye and skin contact with the chemical.

GHS Label elements, including precautionary statements

Not classified

Precautionary Statements

Prevention

Not applicable

Response

Not applicable

Storage

Not applicable

Disposal

Not applicable

Hazards not otherwise classified (HNOC)

Not classified

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight-%
DIMETHYLFORMAMIDE	68-12-2	80-100%
POLYOXYETHYLENE NONYLPHENYL ETHER	9016-45-9	3-7%
HYDROFLUORIC ACID	7664-39-3	1-5%

*The exact percentage (concentration) of composition has been withheld as a trade secret

4. FIRST AID MEASURES

First aid measures for different exposure routes

General advice

If symptoms persist, call a physician.

Eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

Skin contact

Wash off immediately with plenty of water. Get medical attention if irritation develops and persists.

Inhalation

Move to fresh air. If symptoms persist, call a physician.

Ingestion

If swallowed, do not induce vomiting - seek medical advice.

Most important symptoms/effects, acute and delayed

May cause redness, itching, and pain.

Indication of immediate medical attention and special treatment needed, if necessary

Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Use CO2, dry chemical, or foam.

Unsuitable Extinguishing Media

Do not use a solid water stream as it may scatter and spread fire.

Specific hazards arising from the chemical

None known.

Explosion Data

Sensitivity to Mechanical Impact none

Sensitivity to Static Discharge none

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Release from article is neither intended nor promoted by use conditions. Use personal protective equipment. Avoid contact with the skin and the eyes.

Environmental precautions

Prevent product from entering drains.

Methods and materials for containment and cleaning up

Methods for Containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Take up with sand or other noncombustible absorbent material and place into containers for later disposal.

7. HANDLING AND STORAGE

Precautions for safe handling

Wear personal protective equipment. Avoid contact with skin, eyes or clothing. Avoid breathing vapors or mists. Ensure adequate ventilation.

Conditions for safe storage, including any incompatibilities

Keep containers tightly closed in a dry, cool and well-ventilated place. Keep in properly labeled containers.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

This product is an article which contains a chemical substance. Safety information is given for exposure to the article as sold, but considers exposure to the chemical if user has direct eye and skin contact with the chemical.

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH	AIHA - Workplace Environmental Exposure Levels (WEELs) - TWAs
DIMETHYLFORMAMIDE	TWA: 5 ppm S*	TWA: 10 ppm TWA: 30 mg/m ³ (vacated) TWA: 10 ppm (vacated) TWA: 30 mg/m ³ (vacated) S* S*	IDLH: 500 ppm TWA: 10 ppm TWA: 30 mg/m ³	
HYDROFLUORIC ACID	TWA: 0.5 ppm F TWA: 2.5 mg/m ³ F S* Ceiling: 2 ppm F	TWA: 3 ppm F TWA: 2.5 mg/m ³ F (vacated) TWA: 3 ppm F (vacated) TWA: 2.5 mg/m ³ (vacated) STEL: 6 ppm F	IDLH: 30 ppm IDLH: 250 mg/m ³ F Ceiling: 6 ppm 15 min Ceiling: 5 mg/m ³ 15 min TWA: 3 ppm TWA: 2.5 mg/m ³	

Exposure controls

Engineering Measures

Ventilation systems

Individual protection measures, such as personal protective equipment

Eye/Face Protection

Safety glasses with side-shields.

Skin and body protection

Wear protective gloves/clothing.

Respiratory protection

If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn.

General Hygiene Considerations

When using do not eat, drink or smoke. Take off contaminated clothing and wash before reuse. Regular cleaning of equipment, work area and clothing is recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	article	Odor	Not available
Odor Threshold	Not available	Physical State @20°C	Pens
pH	Not available	Molecular Weight	Not available
Specific Gravity	Not available	Autoignition temperature	Not available
Flash point	Not available	Boiling point / boiling range	Not available
Decomposition temperature	Not available	Freezing Point	Not available
Melting point / melting range	Not available		
Flammability Limit in Air	Not available		
Oxidizing Properties	Not available	Explosive Properties	Not available
Solubility	Not available	Partition coefficient	Not available
Evaporation rate	Not available	Vapor Pressure	Not available
Vapor density	Not available	Density	Not available
VOC (lb/gal)	Not available	VOC (g/l)	Not available
Dynamic viscosity	Not available		

10. STABILITY AND REACTIVITY

Reactivity

Stable under recommended storage conditions.

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

None under normal processing.

Conditions to Avoid

Excessive heat. Protect from sunlight.

Incompatible Materials

None known.

Hazardous Decomposition Products

None known.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Acute toxicity	
Inhalation	Non-irritating during normal use.
Eyes	Non-irritating during normal use.
Skin	Non-irritating during normal use.
Ingestion	Not an expected route of exposure.

Component Information

Chemical Name	Oral LD50	Dermal LD50	LC50 (lethal concentration)
DIMETHYLFORMAMIDE	= 2000 mg/kg (Rat) = 2800 mg/kg (Rat)	= 1100 mg/kg (Rat) > 3.2 g/kg (Rat)	
POLYOXYETHYLENE NONYLPHENYL ETHER	= 1310 mg/kg (Rat) = 2590 mg/kg (Rat)	= 1780 µL/kg (Rabbit) = 2 mL/kg (Rabbit)	
HYDROFLUORIC ACID			= 0.79 mg/L (Rat) 1 h

Information on toxicological effects

No information available.

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

Irritation	Non-irritating during normal use.
Corrosivity	No information available.
Sensitization	No information available.
Mutagenic Effects	No information available.
Reproductive Toxicity	No information available.
Carcinogenicity	The table below indicates whether each agency has listed any ingredient as a carcinogen. Ingestion is not a likely route of exposure. Inhalation exposure is considered to be not

relevant.

Chemical Name	ACGIH	IARC	NTP	OSHA
DIMETHYLFORMAMIDE	A3	Group 2A		X

ACGIH: (American Conference of Governmental Industrial Hygienists)

- A1 - Known Human Carcinogen
- A2 - Suspected Human Carcinogen
- A3 - Animal Carcinogen
- A4 - Not Classifiable as a Human Carcinogen

NTP: (National Toxicity Program)

- Known - Known Carcinogen
- Reasonably Anticipated - Reasonably Anticipated to be a Human Carcinogen

IARC: (International Agency for Research on Cancer)

- Group 1: Carcinogenic to humans
- Group 2A: Probably carcinogenic to humans
- Group 2B: Possibly carcinogenic to humans
- Group 3: Not classifiable as to its carcinogenicity to humans

OSHA: (Occupational Safety & Health Administration)

- X - Present

STOT - single exposure No information available.

STOT - repeated exposure No information available.

Target Organ Effects None known.

Aspiration hazard No information available.

Numerical measures of toxicity - Product Information

ATEmix (oral) >2000 mg/kg

ATE: Acute toxicity estimate

12. ECOLOGICAL INFORMATION

Ecotoxicity

The environmental impact of this product has not been fully investigated.

Chemical Name	Algae toxicity	Toxicity to fish	Toxicity to microorganisms	Toxicity to daphnia and other aquatic invertebrates
DIMETHYLFORMAMIDE		Pimephales promelas: 10410 mg/L at 96 h		6800 - 13900: 48 h Daphnia magna mg/L EC50 Static

Persistence and degradability

No information available.

Bioaccumulation

Chemical Name	Octanol Water Partition Coefficient (log pow)
DIMETHYLFORMAMIDE	-1.028
HYDROFLUORIC ACID	-1.4

Mobility

No information available.

Other adverse effects

No information available.

13. DISPOSAL CONSIDERATIONS

Waste Disposal Methods

Dispose of in accordance with local regulations.

Contaminated packaging

Do not re-use empty containers.

14. TRANSPORT INFORMATION

<u>DOT</u>	Not regulated
<u>TDG</u>	Not regulated.
<u>MEX</u>	Not regulated
<u>ICAO</u>	Not regulated
<u>IATA</u>	Not regulated
<u>IMDG</u>	Not regulated
<u>ADR/RID</u>	Not regulated
<u>ADN</u>	Not regulated

15. REGULATORY INFORMATION

International Inventories

TSCA	Yes
DSL/NDSL	Yes
PICCS	Yes
EINECS/ELINCS	Yes
ENCS	No
IECSC	Yes
KECL	Yes
AICS	Yes

***Yes - All component(s) of this product are included or are exempt from listing on the inventory.**

***No - Indicates the component(s) of this product are either not listed or have not been determined to be listed on the inventory.**

- TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory
- DSL/NDSL** - 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

U.S. Federal Regulations**TSCA Sections 4, 5 and 12(b)**

This product does not contain any chemicals regulated by TSCA Sections 4, 5 or 12(b).

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372:

Chemical Name	CAS No	SARA 313 - Threshold Values %	Weight-%
DIMETHYLFORMAMIDE	68-12-2	1.0	80-90
POLYOXYETHYLENE NONYLPHENYL ETHER	9016-45-9	1.0	1-10
HYDROFLUORIC ACID	7664-39-3	1.0	1-3

SARA 311/312 Hazard Categories

Classification is shown in section 2 of this SDS

Clean Water Act

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42):.

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
HYDROFLUORIC ACID	100 lb			X

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302):.

Chemical Name	Hazardous Substances RQs	Extremely Hazardous Substances RQs	RQ
DIMETHYLFORMAMIDE	100		RQ 100 lb final RQ RQ 45.4 kg final RQ
HYDROFLUORIC ACID	100	100 lb	RQ 100 lb final RQ RQ 45.4 kg final RQ

U.S. State Regulations**California Proposition 65**

WARNING: Cancer - www.P65Warnings.ca.gov

Chemical Name	CAS No	California Prop. 65	Weight-%
DIMETHYLFORMAMIDE	68-12-2	Carcinogen	80-100

U.S. State Right-to-Know Regulations

Chemical Name	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
DIMETHYLFORMAMIDE	X	X	X	X	
HYDROFLUORIC ACID	X	X	X	X	

International Regulations**Canada - NDSL**

This product does not contain any NDSL chemicals.

Mexico - Grade

No information available

Mexico - Carcinogen Status and Exposure Limits

Chemical Name	Carcinogen Status	Exposure Limits
DIMETHYLFORMAMIDE		Mexico: TWA 10 ppm
HYDROFLUORIC ACID		Mexico: Ceiling 2 ppm Mexico: TWA 0.5 ppm Mexico: TWA 2.5 mg/m ³

Other Regulations

No information available

16. OTHER INFORMATION

NFPA	Health Hazard 1	Flammability 0	Instability 0	Physical and chemical hazards -
HMIS	Health Hazard 1	Flammability 0	Physical Hazard 0	Personal protection B

Prepared By FUJIFILM Environment, Health and Safety, phone: 800-473-3854

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Revision Note No information available

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.

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