

# redimark

## SAFETY DATA SHEET T401K Black Ink

### 1. Identification

#### Product identifier

Product name	T401K Black Ink
Product number	71085165
Container size	Single Use Cartridge,5 Pack

#### Recommended use of the chemical and restrictions on use

Application	Printing ink.
Uses advised against	No specific uses advised against are identified.

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

Supplier	Redimark 27520 SW 95th Avenue Wilsonville, OR 97070
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#### Emergency telephone number

Emergency telephone	Chemtrec US : 1-800-424-9300 Chemtrec World: 1-703-527-3887
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### 2. Hazard(s) identification

#### Classification of the substance or mixture

OSHA Regulatory Status	This Product is Hazardous under the OSHA Hazard Communication Standard.
Physical hazards	Flam. Liq. 4 - H227
Health hazards	Repr. 1B - H360
Environmental hazards	Not Classified

#### Label elements

##### Pictogram



Signal word	Danger
Hazard statements	H227 Combustible liquid. H360 May damage fertility or the unborn child.
Comments	Full list of Hazard Statements is found in Sec. 16
Precautionary statements	P210 Keep away from heat, sparks, open flames and hot surfaces. No smoking. P280 Wear protective gloves/protective clothing/eye protection/face protection. P308+P313 If exposed or concerned: Get medical advice/attention. P370+P378 In case of fire: Use foam, carbon dioxide, dry powder or water fog to extinguish. P403+P235 Store in a well-ventilated place. Keep cool. P501 Dispose of contents/container in accordance with national regulations.

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### 3. Composition/information on ingredients

#### Mixtures

<b>Lactam</b>	<b>30-50%</b>
CAS number: Proprietary	
<b>Classification</b>	
Flam. Liq. 4 - H227	
Skin Irrit. 2 - H315	
Eye Irrit. 2B - H320	
Repr. 1B - H360	
STOT SE 3 - H335	
<b>Ethanol</b>	<b>5-10%</b>
CAS number: 67-17-5	
<b>Classification</b>	
Flam. Liq. 2 - H225	
Eye Irrit. 2A - H319	

The Full Text for all Hazard Statements are Displayed in Section 16.

### 4. First-aid measures

#### Description of first aid measures

<b>General information</b>	Consult a physician for specific advice. Show this Safety Data Sheet to the medical personnel.
<b>Inhalation</b>	Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. If breathing stops, provide artificial respiration. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. Get medical attention immediately.
<b>Ingestion</b>	Do not induce vomiting. Rinse mouth thoroughly with water. Never give anything by mouth to an unconscious person. Get medical attention immediately.
<b>Skin Contact</b>	Rinse immediately contaminated clothing and skin with plenty of water before removing clothes. Wash skin thoroughly with soap and water. Get medical attention if irritation persists after washing. Wash clothing and clean shoes thoroughly before reuse.
<b>Eye contact</b>	Rinse immediately with plenty of water. Continue to rinse for at least 15 minutes and get medical attention.
<b>Protection of first aiders</b>	First aid personnel should wear appropriate protective equipment during any rescue.

#### Most important symptoms and effects, both acute and delayed

<b>General information</b>	See Section 11 for additional information on health hazards.
<b>Inhalation</b>	May cause respiratory system irritation. May cause coughing and difficulties in breathing. Vapors may cause headache, fatigue, dizziness and nausea.
<b>Ingestion</b>	May cause discomfort if swallowed. Symptoms following overexposure may include the following: Gastrointestinal symptoms, including upset stomach. Nausea, vomiting. Diarrhea.
<b>Skin contact</b>	May cause irritation. Prolonged or repeated contact with skin may cause irritation, redness and dermatitis.
<b>Eye contact</b>	May cause irritation. May cause discomfort. Symptoms following overexposure may include the following: Redness. Conjunctivitis, irritation, tearing.

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### Indication of immediate medical attention and special treatment needed

**Notes for the doctor**                      Treat symptomatically.

### **5. Fire-fighting measures**

#### Extinguishing media

**Suitable extinguishing media**      Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog.

**Unsuitable extinguishing media**      None known.

#### Special hazards arising from the substance or mixture

**Flammability Class**                      No Uniform Fire Code noted.

**Specific hazards**                          The product is not flammable.

**Hazardous combustion products**      Thermal decomposition or combustion products may include the following substances:  
Carbon dioxide (CO<sub>2</sub>). Carbon monoxide (CO).

#### Advice for firefighters

**Protective actions during firefighting**      Evacuate area. Stop leak if safe to do so. Use water to keep fire exposed containers cool and disperse vapors. Use water spray to reduce vapors.

**Special protective equipment for firefighters**      Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

### **6. Accidental release measures**

#### Personal precautions, protective equipment and emergency procedures

**Personal precautions**                      No smoking, sparks, flames or other sources of ignition near spillage. Avoid contact with skin, eyes and clothing. Avoid inhalation of vapors. Wash thoroughly after dealing with a spillage.

#### Environmental precautions

**Environmental precautions**              Avoid release to the environment.

#### Methods and material for containment and cleaning up

**Methods for cleaning up**                      Eliminate all sources of ignition. Stop leak if safe to do so. Contain and absorb spillage with sand, earth or other non-combustible material. Dilute contained spill with water. Collect and place in suitable waste disposal containers and seal securely.

**Reference to other sections**              For personal protection, see Section 8. See Section 11 for additional information on health hazards. See Section 12 for additional information on ecological hazards. For waste disposal, see Section 13.

### **7. Handling and storage**

#### Precautions for safe handling

**Usage precautions**                          Wear protective clothing as described in Section 8 of this safety data sheet.

**Advice on general occupational hygiene**      Do not eat, drink or smoke when using this product. Provide eyewash station and safety shower. Good personal hygiene procedures should be implemented. Wash skin thoroughly after handling.

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

**Storage precautions**                          Keep only in the original container in a cool, well-ventilated place.

**Storage class**                                  Chemical storage.

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### Specific end uses(s)

**Specific end use(s)** The identified uses for this product are detailed in Section 1.2.

### 8. Exposure Controls/personal protection

#### Control parameters

#### Occupational exposure limits

##### Ethanol

Long-term exposure limit (8-hour TWA): OSHA 1000 ppm 1900 mg/m<sup>3</sup>

Short-term exposure limit (15-minute): ACGIH 1000 ppm 1880 mg/m<sup>3</sup>

OSHA = Occupational Safety and Health Administration.

**Ingredient comments** Data based on literature. Product not tested.

#### Exposure controls

##### Protective equipment



##### Appropriate engineering controls

As this product contains ingredients with exposure limits, process enclosures, local exhaust ventilation or other engineering controls should be used to keep worker exposure below any statutory or recommended limits, if use generates dust, fumes, gas, vapor or mist. Use explosion-proof ventilating equipment.

##### Eye/face protection

Wear tight-fitting, chemical splash goggles or face shield.

##### Hand protection

It is recommended that chemical-resistant, impervious gloves are worn. The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material. It is recommended that gloves are made of the following material: Butyl rubber. Nitrile rubber. Rubber (natural, latex). Frequent changes are recommended.

##### Other skin and body protection

Wear appropriate clothing to prevent repeated or prolonged skin contact.

##### Hygiene measures

Provide eyewash station and safety shower.

##### Respiratory protection

If ventilation is inadequate, suitable respiratory protection must be worn. Wear a respirator fitted with the following cartridge: Organic vapor filter.

##### Thermal hazards

If there is a risk of contact with hot product, all protective equipment worn should be suitable for use with high temperatures.

##### Environmental exposure controls

Keep container tightly sealed when not in use. Residues and empty containers should be taken care of as hazardous waste according to local and national provisions.

### 9. Physical and Chemical Properties

#### Information on basic physical and chemical properties

<b>Appearance</b>	Colored liquid.
<b>Color</b>	Black.
<b>Odor</b>	Almost odorless.
<b>Odor threshold</b>	Not available.
<b>pH</b>	pH (concentrated solution): 6.0 - 8.5

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<b>Melting point</b>	0°C/32°F
<b>Initial boiling point and range</b>	100°C/212°F @ 760 mm Hg
<b>Flash point</b>	Not applicable.
<b>Evaporation rate</b>	0.3 (butyl acetate = 1)
<b>Vapour pressure</b>	17.54 mm Hg @ 20°C/68°F
<b>Vapour density</b>	1.27
<b>Relative density</b>	0.9 - 1.1 g/cc
<b>Solubility(ies)</b>	Completely soluble in water.
<b>Partition coefficient</b>	Not applicable.
<b>Auto-ignition temperature</b>	Not applicable.
<b>Decomposition Temperature</b>	Not applicable.
<b>Explosive properties</b>	Not applicable.
<b>Oxidising properties</b>	Not applicable.
<b>Comments</b>	Data based on literature. Product not tested. Information given is applicable to the product as supplied. Information declared as "Not available" or "Not applicable" is not considered to be relevant to the implementation of the proper control measures.
<b>Volatile organic compound</b>	No information available.

### 10. Stability and reactivity

<b>Reactivity</b>	There are no known reactivity hazards associated with this product.
<b>Stability</b>	Stable at normal ambient temperatures and when used as recommended.
<b>Possibility of hazardous reactions</b>	The following materials may react with the product: Strong alkalis.
<b>Conditions to avoid</b>	Avoid the following conditions: Heat, sparks, flames. Freezing.
<b>Materials to avoid</b>	Avoid contact with the following materials: Strong alkalis.
<b>Hazardous decomposition products</b>	Heating may generate the following products: Carbon dioxide (CO <sub>2</sub> ). Carbon monoxide (CO).

### 11. Toxicological information

#### Information on toxicological effects

**Toxicological effects** Data based on literature. Product not tested.

#### Specific target organ toxicity - single exposure

**Target organs** Eyes Gastro-intestinal tract Skin

#### Specific target organ toxicity - repeated exposure

**Target organs** Eyes Gastro-intestinal tract Kidneys Liver Skin

#### Aspiration hazard

**Aspiration hazard** Not anticipated to present an aspiration hazard, based on chemical structure.

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### Toxicological information on ingredients.

#### Lactam

##### Acute toxicity - oral

Acute toxicity oral (LD<sub>50</sub> mg/kg) 3,598.0

Species Rat

ATE oral (mg/kg) 3,598.0

##### Acute toxicity - dermal

Acute toxicity dermal (LD<sub>50</sub> mg/kg) 8,000.0

Species Rabbit

ATE dermal (mg/kg) 8,000.0

#### Ethanol

##### Acute toxicity - oral

Acute toxicity oral (LD<sub>50</sub> mg/kg) 10,470.0

Species Rat

ATE oral (mg/kg) 10,470.0

##### Acute toxicity - dermal

Acute toxicity dermal (LD<sub>50</sub> mg/kg) 15,800.0

Species Rabbit

ATE dermal (mg/kg) 15,800.0

##### Acute toxicity - inhalation

Acute toxicity inhalation (LC<sub>50</sub> vapours mg/l) 30,000.0

Species Rat

ATE inhalation (vapours mg/l) 30,000.0

### 12. Ecological Information

Ecotoxicity Data based on literature. Product not tested.

#### Toxicity

### Ecological information on ingredients.

#### Lactam

Acute toxicity - fish EC<sub>50</sub>, 96 hours: 832 mg/l, *Lepomis macrochirus* (Bluegill)

Acute toxicity - aquatic invertebrates EC<sub>50</sub>, 48 hours: 4897 mg/l, *Daphnia magna*

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**Acute toxicity - aquatic plants** EC<sub>50</sub>, 72 hours: 500 mg/l, Desmodemus subspicatus

### Ethanol

**Acute toxicity - fish** LC<sub>50</sub>, 96 hours: 14,200 mg/l, Pimephales promelas (Fat-head Minnow)

**Acute toxicity - aquatic invertebrates** NOEC, 9 days: 9.6 mg/l, Daphnia magna

**Acute toxicity - aquatic plants** EC<sub>50</sub>, 72 hours: 275 mg/l, Freshwater algae

### Persistence and degradability

#### Ecological information on ingredients.

### Ethanol

**Persistence and degradability** The product is readily biodegradable.

### Bioaccumulative potential

**Partition coefficient** Not applicable.

#### Ecological information on ingredients.

### Lactam

**Partition coefficient** log Pow: -0.46

## 13. Disposal considerations

### Waste treatment methods

**General information** Disposal of this product, process solutions, residues and by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any local authority requirements.

**Disposal methods** Dispose of contents/container in accordance with national regulations. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority. Residues and empty containers should be taken care of as hazardous waste according to local and national provisions. When handling waste, the safety precautions applying to handling of the product should be considered.

## 14. Transport information

**General** The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, DoT).

### UN Number

Not applicable.

### UN proper shipping name

Not applicable.

### Transport hazard class(es)

No transport warning sign required.

### Packing group

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Not applicable.

### Environmental hazards

#### Environmentally Hazardous Substance

No.

### Special precautions for user

Not applicable.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

### 15. Regulatory information

**Regulatory Status** Hazardous Chemical

**Regulatory References** OSHA Hazard Communication Standard, 29 CFR 1910.1200

### US State Regulations

#### California Directors List of Hazardous Substances

The following ingredients are listed or exempt:

**Ethanol**

#### Massachusetts "Right To Know" List

The following ingredients are listed or exempt:

**Lactam**

**Ethanol**

#### Rhode Island "Right To Know" List

The following ingredients are listed or exempt:

**Ethanol**

#### Minnesota "Right To Know" List

The following ingredients are listed or exempt:

**Ethanol**

#### New Jersey "Right To Know" List

The following ingredients are listed or exempt:

**Lactam**

**Ethanol**

#### Pennsylvania "Right To Know" List

The following ingredients are listed or exempt:

**Lactam**

**Ethanol**



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### Inventories

#### **EU - EINECS/ELINCS**

All the ingredients are listed or exempt.

#### **Canada - DSL/NDSL**

All the ingredients are listed or exempt.

#### **US - TSCA**

All the ingredients are listed or exempt.

#### **Australia - AICS**

The following ingredients are listed or exempt:

#### **Japan - MITI**

The following ingredients are listed or exempt:

#### **Korea - KECI**

The following ingredients are listed or exempt:

#### **China - IECSC**

The following ingredients are listed or exempt:

#### **Philippines - PICCS**

The following ingredients are listed or exempt:

### 16. Other information

<b>General information</b>	Containers of this material may be hazardous when emptied, all hazard precautions given in the data sheet must be observed.
<b>Issued by</b>	Matthews Marking Systems - Chemical Services Department
<b>Revision date</b>	3/4/2016
<b>Revision</b>	1
<b>SDS No.</b>	5854
<b>SDS status</b>	Approved.
<b>Hazard statements in full</b>	H225 Highly flammable liquid and vapor. H227 Combustible liquid. H315 Causes skin irritation. H319 Causes serious eye irritation. H320 Causes eye irritation. H335 May cause respiratory irritation. H360 May damage fertility or the unborn child.
<b>NFPA - health hazard</b>	Irritation, minor residual injury. (1)
<b>NFPA - flammability hazard</b>	Will not burn. (0)
<b>NFPA - instability hazard</b>	Normally stable. (0)
<b>ACA HMIS Health rating.</b>	Slight hazard. (1) Chronic hazard.
<b>ACA HMIS Flammability rating.</b>	Will not burn. (0)
<b>ACA HMIS Physical hazard rating.</b>	Normally stable. (0)

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**ACA HMIS Personal  
protection rating.**            B

This 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. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.