

Safety Data Sheet

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NKP11407

Printing date: 1/28/2015

Reviewed on: 04/10/2014

1 Identification

- **Product identifier**
- **Trade name:** Endust® For Electronics 7Oz, 8Oz & 10Oz, Endust® for Electronics 152a Duster with Bitterant
- **Application of the substance / the mixture** Surface cleaning
- **Details of the supplier of the Safety Data Sheet**
- **Manufacturer/Supplier:**
Norazza, Inc.
3938 Broadway
Buffalo, NY 14227
Phone: (716) 706-1160
Website: www.norazza.com
- **Emergency telephone number:**
ChemTel Inc.
(800)255-3924, +1 (813)248-0585

2 Hazard(s) identification

- **Classification of the substance or mixture**

Flam. Aerosol 1 Extremely flammable aerosol.

Simple Asphyxiant May displace oxygen and cause rapid suffocation.

- **Label elements**
- **Hazard pictograms**



- **Signal word** Danger
- **Hazard statements**
Extremely flammable aerosol.
Contains gas under pressure; may explode if heated
May displace oxygen and cause rapid suffocation.
- **Precautionary statements**
Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
Pressurized container: Do not pierce or burn, even after use.
Do not spray on an open flame or other ignition source.

Protect from sunlight. Do not expose to temperatures exceeding 120 °F (49 °C).

Hazard description:

HMIS-symbols:

HEALTH	1	Health = 1
FIRE	4	Fire = 4
REACTIVITY	0	Reactivity = 0

Other hazards

Results of PBT and vPvB assessment

- **PBT:** Not applicable.
- **vPvB:** Not applicable.

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3 Composition/information on ingredients

Chemical characterization: Substances

CAS No. Description

75-37-6 1,1-difluoroethane 100%

4 First-aid measures

- **Description of first aid measures**
- **General information:** Take affected persons out into the fresh air.
- **After inhalation:**
Supply fresh air; consult doctor in case of complaints.
Provide oxygen treatment if affected person has difficulty breathing.
In case of irregular breathing or respiratory arrest provide artificial respiration.
- **After skin contact:**
In cases of frost bites, rinse with plenty of water. Do not remove clothing. If skin irritation continues, consult a doctor.
Seek immediate medical help for blistering or open wounds.
- **After eye contact:**
Remove contact lenses if worn.
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:**
Unlikely route of exposure.
Do not induce vomiting; immediately call for medical help.
- **Most important symptoms and effects, both acute and delayed**
Headache
Coughing
Dizziness
Disorientation
- **Danger** Danger of impaired breathing.
- **Indication of any immediate medical attention and special treatment needed**
Treat frost-bitten areas appropriately.
If necessary oxygen respiration treatment.

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**
CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **For safety reasons unsuitable extinguishing agents:** None.
- **Special hazards arising from the substance or mixture**
Danger of receptacles bursting because of high vapor pressure if heated.
During heating or in case of fire poisonous gases are produced.
- **Advice for firefighters**
- **Protective equipment:**
Wear self-contained respiratory protective device. Wear fully protective suit.
- **Additional information**
Cool endangered receptacles with water fog.
Leaking gas fire: Do not extinguish, unless leak can be stopped safely

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6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**

Use respiratory protective device against the effects of fumes/dust/aerosol.

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation.

Keep away from ignition sources.

Protect from heat.

- **Environmental precautions:** No special measures required.

- **Methods and material for containment and cleaning up:** Allow to evaporate.

- **Reference to other sections**

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

7 Handling and storage

- **Precautions for safe handling**

Avoid spray in enclosed areas.

Use only in well ventilated areas.

Keep away from heat and direct sunlight.

- **Information about protection against explosions and fires:**

Do not spray on a naked flame

or any incandescent material.

Keep ignition sources away.

Do not smoke.

Protect against electrostatic charges.

Pressurized container: protect from sunlight and do not expose to temperatures exceeding 120 °F / 49 °C, i.e. electric lights. Do not pierce or burn, even after use.

Emergency cooling must be available in case of nearby fire. Prevent impact and friction.

Flammable gas-air mixtures may be formed in empty receptacles.

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

- **Storage:**

- **Requirements to be met by storerooms and receptacles:**

Store in a cool location.

Avoid storage near extreme heat, ignition sources or open flame.

- **Information about storage in one common storage facility:** Store away from oxidizing agents.

- **Further information about storage conditions:**

Protect from heat and direct sunlight.

Store in a cool place. Heat will increase pressure and may lead to the receptacle bursting.

- **Specific end use(s)** No further relevant information available.

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8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Control parameters**
- **Components with limit values that require monitoring at the workplace:** Not required.
- **Additional information:** The lists that were valid during the creation were used as basis.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
The usual precautionary measures for handling chemicals should be followed.
Wash hands before breaks and at the end of work.
Do not inhale gases or fumes.
- **Breathing equipment:**
Use suitable respiratory protective device in case of insufficient ventilation. For spills, respiratory protection may be advisable.
- **Protection of hands:**
Gloves not required under normal conditions of use.
Wear protective gloves to handle contents of damaged or leaking units. Gloves should provide protection from freezing temperatures.
- **Penetration time of glove material**
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:**
Safety glasses
- **Body protection:**
Not required under normal conditions of use. Protection may be required for spills.
- **Limitation and supervision of exposure into the environment**
No further relevant information available.

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9 Physical and chemical properties

<ul style="list-style-type: none"> · Information on basic physical and chemical properties · General Information · Appearance: <ul style="list-style-type: none"> Form: Aerosol Color: Colorless · Odor: Ether-like · Odor threshold: Not determined. 	
· pH-value:	Not applicable.
<ul style="list-style-type: none"> · Change in condition <ul style="list-style-type: none"> Melting point/Melting range: -179 °F (-117 °C) (Literature) Boiling point/Boiling range: -13 °F (-25 °C) 	
· Flash point:	-58 °F (-50 °C)
· Flammability (solid, gaseous):	Not applicable.
· Auto-ignition temperature:	Not determined.
· Decomposition temperature:	Not determined.
· Auto igniting:	Not determined.
· Danger of explosion: of explosive air/	Product is not explosive. However, formation
<ul style="list-style-type: none"> · Explosion limits: <ul style="list-style-type: none"> Lower: 3.9 Vol % Upper: 16.9 Vol % 	
· Vapor pressure at 20 °C (68 °F):	530 kPa (62.5 psig)
<ul style="list-style-type: none"> · Density at 20 °C (68 °F): 0.909 g/cm³ (7.586 lbs/gal) · Relative density Not determined. · Vapour density at 25 °C (77 °F) 2.4 (AIR = 1) · Evaporation rate at 20 °C (68 °F) >1 (Butyl acetate = 1) 	
<ul style="list-style-type: none"> · Solubility in / Miscibility with <ul style="list-style-type: none"> Water at 20 °C (68 °F): <5.0 g/l (Negligible) 	
· Partition coefficient (n-octanol/water):	Not determined.
<ul style="list-style-type: none"> · Viscosity: <ul style="list-style-type: none"> Dynamic: Not determined. Kinematic: Not determined. · Other information No further relevant information available. 	

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10 Stability and reactivity

- **Reactivity**
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:**
No decomposition if used and stored according to specifications.
- **Possibility of hazardous reactions**
Flammable.
Danger of receptacles bursting because of high vapor pressure if heated.
Can form explosive mixtures in air if heated above flash point and/or when sprayed or atomized.
Can react violently with oxygen rich (oxidizing) material. Danger of Explosion.
Used empty containers may contain product gases which form explosive mixtures with air.
Toxic fumes may be released if heated above the decomposition point.
- **Conditions to avoid**
Keep ignition sources away - Do not smoke.
Store away from oxidizing agents.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** Danger of toxic fluorine based pyrolysis products.

11 Toxicological information

- **Information on toxicological effects**
 - **Acute toxicity:**
- | | | |
|---|---------|------------------|
| • LD/LC50 values that are relevant for classification: | | |
| 75-37-6 1,1-difluoroethane | | |
| Inhalative | LC50/4h | 977 mg/l (mouse) |
- **Primary irritant effect:**
 - **on the skin:** No irritant effect.
 - **on the eye:** No irritating effect.
 - **Sensitization:** No sensitizing effects known.
 - **Additional toxicological information:** Asphyxiant gas.
 - **Carcinogenic categories**
 - **NTP(National Toxicology Program)**
Substance is not listed

12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Bioaccumulative potential** Does not accumulate in organisms
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:** Generally not hazardous for water
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

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13 Disposal considerations

- **Recommendation:**
Dispose of in accordance with local, state, and federal regulations.

14 Transport information

- | | |
|---------------------------|--------------------|
| • UN-Number | |
| • DOT, IMDG, IATA | UN1030 |
| • UN proper shipping name | |
| • DOT | 1,1-Difluoroethane |
| • IMDG | 1,1-Difluoroethane |

• Transport hazard class(es)

- | | |
|---------|-----|
| • DOT | |
| • Class | 2.1 |
| • Label | 2.1 |

- | | |
|---------|-----|
| • IMDG | |
| • Class | 2.1 |
| • Label | 2.1 |

- | | |
|---------|-----------|
| • IATA | |
| • Class | Forbidden |
| • Label | Forbidden |

- | | |
|-------------------|------|
| • Packing group | |
| • DOT, IMDG, IATA | None |

- | | |
|--------------------------|----|
| • Environmental hazards: | |
| • Marine pollutant: | No |

- | | |
|--------------------------------|-----------------|
| • Special precautions for user | Not applicable. |
| • Danger code (Kemler): | 20 |
| • EMS Number: | F-D,S-U |

15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
- SARA

• Section 355 (extremely hazardous substances):

Substance is not listed.

• Section 313 (Specific toxic chemical listings):

Substance is not listed.

• TSCA (Toxic Substances Control Act):

Substance is listed.

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• **Proposition 65 (California)**

• **Chemicals known to cause cancer:**

Substance is not listed.

• **Chemicals known to cause reproductive toxicity for females:**

Substance is not listed.

• **Chemicals known to cause reproductive toxicity for males:**

Substance is not listed.

• **Chemicals known to cause developmental toxicity:**

Substance is not listed.

• **Carcinogenic categories**

• **EPA (Environmental Protection Agency)**

Substance is not listed.

• **IARC (International Agency for Research on Cancer)**

Substance is not listed.

• **TLV (Threshold Limit Value established by ACGIH)**

Substance is not listed.

• **NIOSH-Ca (National Institute for Occupational Safety and Health)**

Substance is not listed.

• **OSHA-Ca (Occupational Safety & Health Administration)**

Substance is not listed.

• **State Right to Know Listings**

Substance is not listed.

• **Canada**

• **Canadian substance listings:**

• **Canadian Domestic Substances List (DSL)**

Substance is listed.

• **Canadian Ingredient Disclosure list (limit 0.1%)**

Substance is not listed.

• **Canadian Ingredient Disclosure list (limit 1%)**

Substance is not listed.

• **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

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16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Date of preparation / last revision** 04/10/2014 / -

· **Abbreviations and acronyms:**

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

GHS: Globally Harmonized System of Classification and Labeling of Chemicals

ACGIH: American Conference of Governmental Industrial Hygienists EINECS:

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

WHMIS: Workplace Hazardous Materials Information System (Canada)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

Flam. Aerosol 1: Flammable aerosols, Hazard Category 1

· **Sources**

SDS Prepared by:

ESP