

HIGH TECH II ELECTRONIC CLEANER

SAFETY DATA SHEET

OSHA HCS (29 CFR 1910.1200)

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

Product identifier

Chemical Name	Mixture
CAS No.	Mixture
Trade Name	BD1547, BD1547-1 HIGH TECH II ELECTRONIC CLEANER
Product Code	SP-501019-1.02

Relevant identified uses of the substance or mixture and uses advised against

Identified Use(s)	Electronics cleaner
Uses Advised Against	None
Company Identification	Spray Products Corporation P.O. Box 737 Norristown, PA 19404
Telephone	(610) 277-1010
Fax	(610) 277-4390
E-Mail (competent person)	johnd@sprayproducts.com

Emergency telephone number

Emergency Phone No.	Transportation Emergency: CHEMTREC 24 hr. 1-800-424-9300 / 1 (703) 527-3887 (Collect calls accepted)
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SECTION 2: HAZARDS IDENTIFICATION

Classification of the substance or mixture

OSHA HCS (29 CFR 1910.1200)

Flam. Aerosol 2; Liquefied gas; Acute Tox. 4; Skin Irrit. 2; Eye Irrit. 2; STOT SE 3

Label elements

Hazard Symbol



WARNING

Signal word(s)

Hazard Statement(s)

Flammable aerosol.
Contains gas under pressure; may explode if heated.
Harmful if swallowed.
Causes skin irritation.
Causes serious eye irritation.
May cause drowsiness or dizziness.

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Do not spray on an open flame or other ignition source.
Do not pierce or burn, even after use.
Wear protective gloves/eye protection.
Wash hands and exposed skin after use.
Avoid breathing spray.
Use only outdoors or in a well-ventilated area.
Protect from sunlight. Do not expose to temperatures exceeding 50°C/ 122°F.

Precautionary Statement(s)

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Other hazards

Harmful to aquatic life. Harmful to aquatic life with long lasting effects.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Ingredient(s)	% wt.	CAS No.	Hazard classification
Trans-1,2-Dichloroethylene	70 - 80	156-60-5	Flam. Liq. 1; H224 Acute Tox. 4; H302 STOT SE 3; H336 Skin Irrit. 2; H315 Eye Irrit. 2; H319 Aquatic Acute 3; H402 Aquatic Chronic 3; H412
1,1,1,2-Tetrafluoroethane	20 - 30	811-97-2	Liquified Gas; H280 Simple Asphyxiant
Carbon Dioxide	1 - 5	124-38-9	Compressed dissolved gas; H280

Additional Information – Substances in the product which may present a health or environmental hazard, or which have been assigned occupational exposure limits, are detailed below.: **None**

SECTION 4: FIRST AID MEASURES



Description of first aid measures

Inhalation	If inhaled: Remove person to fresh air and keep comfortable for breathing. If breathing is labored, administer oxygen. If symptoms develop, obtain medical attention.
Skin Contact	Wash affected skin with soap and water. If irritation (redness, rash, blistering) develops, get medical attention.
Eye Contact	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
Ingestion	Do not induce vomiting. Do not give anything by mouth to an unconscious person. Rinse mouth.

Most important symptoms and effects, both acute and delayed Harmful if swallowed. May cause drowsiness or dizziness.

Indication of any immediate medical attention and special treatment needed IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

SECTION 5: FIRE-FIGHTING MEASURES

Extinguishing Media

-Suitable Extinguishing Media Extinguish with carbon dioxide, dry chemical, foam or water spray.
-Unsuitable Extinguishing Media Do not use water jet.

Special hazards arising from the substance or mixture None

Advice for fire-fighters

A self contained breathing apparatus and suitable protective clothing should be worn in fire conditions. Keep containers cool by spraying with water if exposed to fire.

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SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	Eliminate sources of ignition. Avoid contact with skin and eyes. Avoid breathing spray. Wear protective gloves/eye protection.
Environmental precautions	Prevent liquid entering sewers, basements and work pits. Avoid release to the environment.
Methods and material for containment and cleaning up	Cover spills with inert absorbent material. Transfer to a container for disposal or recovery.
Reference to other sections	None
Additional Information	None

SECTION 7: HANDLING AND STORAGE

Precautions for safe handling	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use product in a well-ventilated area only. Avoid contact with skin and eyes. Avoid breathing spray. Wear protective gloves/eye protection.
Conditions for safe storage, including any incompatibilities	
-Storage temperature	Store in a well-ventilated place. Protect from sunlight. Do not expose to temperatures exceeding 50°C/ 122°F. Keep container tightly closed. Store locked up.
-Incompatible materials	This product should be stored away from sources of strong heat, oxidizing agents, and reducing agents. Strong Acids, strong bases and reactive metals. Do not mix with finely divided alkali or alkaline earth metals.
Specific end use(s)	Electronics cleaner

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational Exposure Limits

SUBSTANCE.	CAS No.	(8hr TWA)		(STEL)		Note:
		PEL (OSHA)	TLV (ACGIH)	PEL (OSHA)	TLV (ACGIH)	
Trans-1,2-Dichloroethylene	156-60-5	200 ppm	200 ppm	-----	-----	-----
Carbon dioxide	124-38-9	-----	5000 ppm	-----	30,000 ppm	-----

#Assure minimum oxygen content of work atmosphere.

Recommended monitoring method NIOSH 1003 (Hydrocarbons, Halogenated)

Exposure controls

Appropriate engineering controls Use only with adequate ventilation to keep exposures (airborne levels of dust, fume, vapour etc) below recommended exposure limits.

Personal protection equipment

Eye/face protection

Wear protective eyewear (goggles, face shield, or safety glasses).



Skin protection (Hand protection/ Other)

Wear suitable gloves if prolonged skin contact is likely. Check with protective equipment manufacturer's data.



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Respiratory protection



Normally no personal respiratory protection is necessary. In case of insufficient ventilation, wear suitable respiratory equipment. Check with protective equipment manufacturer's data.

Thermal hazards

Not normally required. Use gloves with insulation for thermal protection, when needed.

Environmental Exposure Controls

Avoid release to the environment.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	Aerosol spray
Color.	Clear
Odor	Pleasant
Odor Threshold (ppm)	Not available
pH (Value)	Not available
Melting Point (°C) / Freezing Point (°C)	< -40 (< -40 °F)
Boiling point/boiling range (°C):	> -25 (> -13 °F)
Flash Point (°C)	6 (42.8 °F)
Evaporation Rate	Not available
Flammability (solid, gas)	Flammable aerosol
Explosive Limit Ranges	~ 9% - 13%
Vapor pressure (Pascal)	> 4.4 x 10 ⁴ (> 331 mmHg)
Vapor Density (Air=1)	> 1
Density (g/ml)	Not available
Solubility (Water)	Not available
Solubility (Other)	Not available
Partition Coefficient (n-Octanol/water)	Not available
Auto Ignition Point (°C)	~ 460 (860 °F)
Decomposition Temperature (°C)	Not available
Kinematic Viscosity (cSt)	Not available
Explosive properties	Not explosive.
Oxidizing properties	Not oxidizing.
Other information	None

SECTION 10: STABILITY AND REACTIVITY

Reactivity	Stable under normal conditions.
Chemical stability	Stable.
Possibility of hazardous reactions	None anticipated.
Conditions to avoid	Avoid contact with heat and ignition sources.
Incompatible materials	This product should be stored away from sources of strong heat , oxidizing agents, and reducing agents. Strong Acids, strong bases and reactive metals. Do not mix with finely divided alkali or alkaline earth metals.
Hazardous decomposition product(s)	Carbon monoxide, Carbon dioxide, Acrid smoke, Hydrogen chloride, Phosgene gas, Chlorine gas, Hydrogen Flouride, Carbonyl Fluoride, Fluorinated Hydrocarbons.

SECTION 11: TOXICOLOGICAL INFORMATION

Exposure routes: Inhalation, Skin Contact, Eye Contact

Information on toxicological effects

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Trans-1,2-dichloroethylene (CAS No. 156-60-5):

Acute toxicity (calculated / estimated) Oral LD50 = 770 mg/kg (rat)
 Dermal LD50 >5000 mg/kg (rabbit)
 Inhalation LC50 2410 ppm (4 hour(s)) (rat) - Vapours may cause drowsiness and dizziness.

Irritation/Corrosivity Causes skin irritation. Causes serious eye irritation. Repeated exposure may cause skin dryness or cracking.

Sensitization It is not a skin sensitizer.

Repeated dose toxicity Inhalation NOAEL 4000 ppm (rat) (90-days)

Carcinogenicity It is unlikely to present a carcinogenic hazard to man.

NTP	IARC	ACGIH	OSHA	NIOSH
No.	No.	No.	No.	No.

Mutagenicity Negative
Reproductive toxicity Negative
Other information None known.

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity

Trans-1,2-dichloroethylene (CAS No. 156-60-5):

Short term LC50 (96 hour): 74 - 290 mg/L (Fish)
 LC50 (48 hour): 79 mg/L (Daphnia magna)
 LC50 (96 hour): 798 mg/L (Algae)

Long Term NOEC (28 days): <110 mg/L (Fish)

Persistence and degradability Not readily biodegradable.
Bioaccumulative potential The product has a low potential for bioaccumulation.
Mobility in soil May evaporate quickly.
Results of PBT and vPvB assessment Not classified as PBT or vPvB.
Other adverse effects None known.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste treatment methods Disposal should be in accordance with local, state or national legislation. Consult an accredited waste disposal contractor or the local authority for advice.

SECTION 14: TRANSPORT INFORMATION

	<u>U.S. DOT</u>	<u>Sea transport (IMDG)</u>	<u>Air transport (ICAO/IATA)</u>
UN number	1950	1950	1950
Proper Shipping Name	Aerosols, flammable	Aerosols, flammable	Aerosols, flammable
Transport hazard class(es)	2.1	2.1	2.1
Packing group	Not applicable	Not applicable	Not applicable
Environmental hazards	None assigned	None assigned	None assigned
Special precautions for user	None assigned	None assigned	None assigned

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code: Not applicable

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SECTION 15: REGULATORY INFORMATION

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

TSCA (Toxic Substance Control Act) - Inventory Status: All components listed or polymer exempt.

Designated Hazardous Substances and Reportable Quantities (40 CFR 302.4):

Chemical Name	CAS No.	Typical %wt.	RQ (Pounds)
Trans-1,2-Dichloroethylene	156-60-5	70 - 80	1000

SARA 311/312 - Hazard Categories:

Fire Sudden Release Reactivity Immediate (acute) Chronic (delayed)

SARA 313 - Toxic Chemicals (40 CFR 372):

Chemical Name	CAS No.	Typical %wt.
None	----	----

SARA 302 - Extremely Hazardous Substances (40 CFR 355):

Chemical Name	CAS No.	Typical %wt.	TPQ (pounds)
None	----	----	----

California Proposition 65 List:

Chemical Name	CAS No.	Type of Toxicity
None	----	----

SECTION 16: OTHER INFORMATION

The following sections contain revisions or new statements: 1-16.

Date of preparation: August 29, 2015

Hazard Statement(s) and Risk Phrases Listed in: SECTION 2:/ SECTION 3:

Hazard Statement(s)

- H224: Extremely flammable liquid and vapour.
- H280: Contains gas under pressure; may explode if heated.
- H302: Harmful if swallowed.
- H315: Causes skin irritation.
- H319: Causes serious eye irritation.
- H336: May cause drowsiness or dizziness.
- H402: Harmful to aquatic life.
- H412: Harmful to aquatic life with long lasting effects.

Training advice: None.

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