

Safety Data Sheet
acc. to OSHA HCS

Printing date 06/12/2018

Reviewed on 06/12/2018

1 Identification

- **Product name:** *Diamond Aerosol Spray*
- **Part number:** 90-173000 - 90-173025
- **Application of the substance / the mixture** *Polishing solution*
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
*Allied High Tech Products Inc.
2376 East Pacifica Place
USA-RANCHO DOMINGUEZ, CA 90220
USA
info@alliedhightech.com*
- **Information department:** *Product safety department*
- **Emergency telephone number:**
*During normal opening times: +1 (310) 635-2466
Chemtrec: +1 (202) 483-7616*

2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS02 Flame

Flam. Aerosol 1 H222 Extremely flammable aerosol.



GHS08 Health hazard

Carc. 2 H351 Suspected of causing cancer.

STOT SE 2 H371 May cause damage to the heart, the skin, the blood system and the eyes.



GHS07

Eye Irrit. 2A H319 Causes serious eye irritation.

STOT SE 3 H336 May cause drowsiness or dizziness.

Simple Asphyxiant May displace oxygen and cause rapid suffocation.

- **Label elements**
- **GHS label elements** *The product is classified and labeled according to the Globally Harmonized System (GHS).*

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· **Hazard pictograms**



GHS02 GHS07 GHS08

· **Signal word** *Danger*

· **Hazard-determining components of labeling:**

*methyl isobutyl ketone
isopropyl alcohol
methyl alcohol*

· **Hazard statements**

*Extremely flammable aerosol.
Causes serious eye irritation.
Suspected of causing cancer.
May cause damage to the heart, the skin, the blood system and the eyes.
May cause drowsiness or dizziness.
May displace oxygen and cause rapid suffocation.*

· **Precautionary statements**

*Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
Do not spray on an open flame or other ignition source.
Pressurized container: Do not pierce or burn, even after use.
Do not breathe dust/fume/gas/mist/vapors/spray.
Wash thoroughly after handling.
Do not eat, drink or smoke when using this product.
Wear protective gloves/protective clothing/eye protection/face protection.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
Continue rinsing.
IF exposed or concerned: Get medical advice/attention.
If eye irritation persists: Get medical advice/attention.
Store locked up.
Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.
Dispose of contents/container in accordance with local/regional/national/international regulations.*

· **Classification system:**

· **NFPA ratings (scale 0 - 4)**



*Health = 1
Fire = 4
Reactivity = 0*

· **HMIS-ratings (scale 0 - 4)**



*Health = 1
Fire = 4
Reactivity = 0*

· **Other hazards**

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

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· **vPvB:** Not applicable.

3 Composition/information on ingredients

- **Chemical characterization: Mixtures**
- **Description:** Mixture of the substances listed below with nonhazardous additions.

- **Hazardous Components:**

68476-86-8	Petroleum gases, liquefied, sweetened ⚠ Flam. Gas 1, H220; ⚠ Press. Gas, H280	25-50%
64-17-5	ethyl alcohol ⚠ Flam. Liq. 2, H225	25-50%
67-63-0	isopropyl alcohol ⚠ Flam. Liq. 2, H225; ⚠ Eye Irrit. 2A, H319; STOT SE 3, H336	10-25%
67-56-1	methyl alcohol ⚠ Flam. Liq. 2, H225; ⚠ Acute Tox. 3, H301; ⚠ Acute Tox. 3, H311; ⚠ Acute Tox. 3, H331; ⚠ STOT SE 1, H370	2.5-10%
108-10-1	methyl isobutyl ketone ⚠ Flam. Liq. 2, H225; ⚠ Carc. 2, H351; ⚠ Acute Tox. 4, H332; ⚠ Eye Irrit. 2A, H319; STOT SE 3, H335	2.5-10%

- **Non-hazardous Components:**

7782-40-3	Diamond	≤2.5%
7732-18-5	water, distilled, conductivity or of similar purity	2.5-10%

- **Additional information:** Water is a byproduct of ethyl alcohol and is naturally occurring in this product.

4 First-aid measures

- **Description of first aid measures**
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Generally the product does not irritate the skin.
- **After eye contact:**
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:** If symptoms persist consult doctor.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed**
Headache
Coughing
Nausea
Dizziness
Disorientation
Unconsciousness
- **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

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.
- **Special hazards arising from the substance or mixture** No further relevant information available.

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- **Advice for firefighters**
- **Protective equipment:** No special measures required.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:**
Do not allow product to reach sewage system or any water course.
Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.
- **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.
- **Protective Action Criteria for Chemicals**

· **PAC-1:**

64-17-5	ethyl alcohol	1,800 ppm
67-63-0	isopropyl alcohol	400 ppm
67-56-1	methyl alcohol	530 ppm
108-10-1	methyl isobutyl ketone	75 ppm
7782-40-3	Diamond	6.3 mg/m ³

· **PAC-2:**

64-17-5	ethyl alcohol	3300* ppm
67-63-0	isopropyl alcohol	2000* ppm
67-56-1	methyl alcohol	2,100 ppm
108-10-1	methyl isobutyl ketone	500 ppm
7782-40-3	Diamond	69 mg/m ³

· **PAC-3:**

64-17-5	ethyl alcohol	15000* ppm
67-63-0	isopropyl alcohol	12000** ppm
67-56-1	methyl alcohol	7200* ppm
108-10-1	methyl isobutyl ketone	3000* ppm
7782-40-3	Diamond	1,100 mg/m ³

7 Handling and storage

- **Handling:**
- **Precautions for safe handling** No special precautions are necessary if used correctly.
- **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.
Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C, i.e. electric lights. Do not pierce or burn, even after use.

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- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**
Observe official regulations on storing packagings with pressurized containers.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Keep receptacle tightly sealed.
- **Specific end use(s)** No further relevant information available.

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:**
The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit.
At this time, the remaining constituent has no known exposure limits.

64-17-5 ethyl alcohol

PEL	Long-term value: 1900 mg/m ³ , 1000 ppm
REL	Long-term value: 1900 mg/m ³ , 1000 ppm
TLV	Short-term value: 1880 mg/m ³ , 1000 ppm

67-63-0 isopropyl alcohol

PEL	Long-term value: 980 mg/m ³ , 400 ppm
REL	Short-term value: 1225 mg/m ³ , 500 ppm Long-term value: 980 mg/m ³ , 400 ppm
TLV	Short-term value: 984 mg/m ³ , 400 ppm Long-term value: 492 mg/m ³ , 200 ppm BEI

67-56-1 methyl alcohol

PEL	Long-term value: 260 mg/m ³ , 200 ppm
REL	Short-term value: 325 mg/m ³ , 250 ppm Long-term value: 260 mg/m ³ , 200 ppm Skin
TLV	Short-term value: 328 mg/m ³ , 250 ppm Long-term value: 262 mg/m ³ , 200 ppm Skin; BEI

108-10-1 methyl isobutyl ketone

PEL	Long-term value: 410 mg/m ³ , 100 ppm
REL	Short-term value: 300 mg/m ³ , 75 ppm Long-term value: 205 mg/m ³ , 50 ppm
TLV	Short-term value: 307 mg/m ³ , 75 ppm Long-term value: 82 mg/m ³ , 20 ppm BEI

- **Ingredients with biological limit values:**

67-63-0 isopropyl alcohol

BEI	40 mg/L Medium: urine Time: end of shift at end of workweek Parameter: Acetone (background, nonspecific)
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67-56-1 methyl alcohol

BEI 15 mg/L
 Medium: urine
 Time: end of shift
 Parameter: Methanol (background, nonspecific)

108-10-1 methyl isobutyl ketone

BEI 1 mg/L
 Medium: urine
 Time: end of shift
 Parameter: MIBK

· **Additional information:** The lists that were valid during the creation were used as basis.

· **Exposure controls**

· **Personal protective equipment:**

· **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes.

Avoid contact with the eyes and skin.

· **Breathing equipment:** Not required.

· **Protection of hands:**

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

· **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· **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:**



Tightly sealed goggles

9 Physical and chemical properties

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

Form: Aerosol

Color: According to product specification

· **Odor:** Alcohol-like

· **Odor threshold:** Not determined.

· **pH-value:** Not determined.

· **Change in condition**

Melting point/Melting range: Undetermined.

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Boiling point/Boiling range:	78 °C (172.4 °F)
· Flash point:	-88 °C (-126.4 °F)
· Flammability (solid, gaseous):	Not applicable.
· Ignition temperature:	425 °C (797 °F)
· Decomposition temperature:	Not determined.
· Auto igniting:	Product is not selfigniting.
· Danger of explosion:	Product is not explosive. However, formation of explosive air/vapor mixtures are possible.
· Explosion limits:	
Lower:	2.0 Vol % (Propellant)
Upper:	15.0 Vol % (Propellant)
· Vapor pressure at 20 °C (68 °F):	64 hPa (48 mm Hg)
· Density:	Not determined.
· Relative density	Not determined.
· Vapor density	1.6-1.9 (Air = 1)
· Specific gravity:	0.8 (water = 1)
· Evaporation rate	Not applicable.
· Solubility in / Miscibility with Water:	Fully miscible.
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
· Solvent content:	
Organic solvents:	95 %
Water:	3.5 %
VOC content:	95 %
	950.0 g/l / 7.93 lb/gl
Solids content:	1.4 %
· Other information	No further relevant information available.

10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid**
 Keep away from heat.
 Keep away from open flames. - No smoking.
 Keep away from oxidising agents and acidic substances.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:**
 Formaldehyde
 Carbon monoxide and carbon dioxide

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· **Additional information:** Hazardous decomposition products may form during combustion.

11 Toxicological information

· **Information on toxicological effects**

· **Acute toxicity:**

· **LD/LC50 values that are relevant for classification:**

ATE (Acute Toxicity Estimate)

Oral	LD50	2,710 mg/kg
Dermal	LD50	8,520 mg/kg
Inhalative	LC50/4 h	51.3-57.5 mg/l

64-17-5 ethyl alcohol

Oral	LD50	7,060 mg/kg (rat)
Dermal	LD50	15,800 mg/kg (rabbit)
Inhalative	LC50/4 h	20,000 mg/l (rat)

67-63-0 isopropyl alcohol

Oral	LD50	5,045 mg/kg (rat)
Dermal	LD50	12,800 mg/kg (rabbit)
Inhalative	LC50/4 h	30 mg/l (rat)

67-56-1 methyl alcohol

Oral	LD50	100 mg/kg (ATE)
Dermal	LD50	300 mg/kg (ATE)
Inhalative	LC50/4 h	3 mg/l (ATE)

108-10-1 methyl isobutyl ketone

Oral	LD50	2,080 mg/kg (rat)
Dermal	LD50	16,000 mg/kg (rab)
Inhalative	LC50/4 h	8.3-16.6 mg/l (rat)

· **Primary chemical irritant effect:**

· **on the skin:** No irritant effect.

· **on the eye:** Irritating effect.

· **Sensitization:** No sensitizing effects known.

· **Additional toxicological information:**

Specific Target Organ Toxicity - Single Exposure 3 - Target Organ: central nervous system depression

· **Carcinogenic categories**

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

64-17-5	ethyl alcohol	1
67-63-0	isopropyl alcohol	3
108-10-1	methyl isobutyl ketone	2B

· **NTP (National Toxicology Program)**

None of the ingredients is listed.

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

None of the ingredients is listed.

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12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**
Water hazard class 1 (Self-assessment): slightly hazardous for water
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:** Contact waste processors for recycling information.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

14 Transport information

- | | |
|----------------------------------|---------------------|
| · UN-Number | |
| · DOT, IMDG, IATA | UN1950 |
| · UN proper shipping name | |
| · DOT | Aerosols, flammable |
| · IMDG | AEROSOLS |
| · IATA | AEROSOLS, flammable |

- **Transport hazard class(es)**

- **DOT**



- | | |
|----------------|-----|
| · Class | 2.1 |
| · Label | 2.1 |

- **IMDG, IATA**



- | | |
|----------------|-----|
| · Class | 2.1 |
|----------------|-----|

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· Label	2.1
· Packing group · DOT, IMDG, IATA	not regulated
· Environmental hazards: · Marine pollutant:	No
· Special precautions for user · Danger code (Kemler): · EMS Number: · Stowage Code	Warning: Gases - F-D,S-U SW1 Protected from sources of heat. SW22 For AEROSOLS with a maximum capacity of 1 litre: Category A. For AEROSOLS with a capacity above 1 litre: Category B. For WASTE AEROSOLS: Category C, Clear of living quarters.
· Segregation Code	SG69 For AEROSOLS with a maximum capacity of 1 litre: Segregation as for class 9. Stow "separated from" class 1 except for division 1.4. For AEROSOLS with a capacity above 1 litre: Segregation as for the appropriate subdivision of class 2. For WASTE AEROSOLS: Segregation as for the appropriate subdivision of class 2.
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· Transport/Additional information: · DOT · Quantity limitations	On passenger aircraft/rail: 75 kg On cargo aircraft only: 150 kg
· IMDG · Limited quantities (LQ) · Excepted quantities (EQ)	1L Code: E0 Not permitted as Excepted Quantity
· UN "Model Regulation":	UN 1950 AEROSOLS, 2.1

15 Regulatory information

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

· Section 355 (extremely hazardous substances):	None of the ingredients is listed.
· Section 313 (Specific toxic chemical listings):	
67-63-0	isopropyl alcohol
67-56-1	methyl alcohol
108-10-1	methyl isobutyl ketone
· TSCA (Toxic Substances Control Act):	
64-17-5	ethyl alcohol
67-63-0	isopropyl alcohol
67-56-1	methyl alcohol

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108-10-1	methyl isobutyl ketone	
7782-40-3	Diamond	
7732-18-5	water, distilled, conductivity or of similar purity	
· TSCA new (21st Century Act) (Substances not listed)		
68476-86-8	Petroleum gases, liquefied, sweetened	
7782-40-3	Diamond	
· Proposition 65		
· Chemicals known to cause cancer:		
108-10-1	methyl isobutyl ketone	
· Chemicals known to cause reproductive toxicity for females:		
None of the ingredients is listed.		
· Chemicals known to cause reproductive toxicity for males:		
None of the ingredients is listed.		
· Chemicals known to cause developmental toxicity:		
64-17-5	ethyl alcohol	
67-56-1	methyl alcohol	
108-10-1	methyl isobutyl ketone	
· Carcinogenic categories		
· EPA (Environmental Protection Agency)		
108-10-1	methyl isobutyl ketone	I
· TLV (Threshold Limit Value established by ACGIH)		
64-17-5	ethyl alcohol	A3
67-63-0	isopropyl alcohol	A4
· NIOSH-Ca (National Institute for Occupational Safety and Health)		
None of the ingredients is listed.		
· Chemical safety assessment: A Chemical Safety Assessment has not been carried out.		

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.

- **Department issuing SDS:** Environment protection department.
- **Contact:** Kim Dermit
- **Date of preparation / last revision** 06/12/2018 / -

· Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
 IMDG: International Maritime Code for Dangerous Goods
 DOT: US Department of Transportation
 IATA: International Air Transport Association
 ACGIH: American Conference of Governmental Industrial Hygienists
 EINECS: European Inventory of Existing Commercial Chemical Substances
 ELINCS: European List of Notified Chemical Substances
 CAS: Chemical Abstracts Service (division of the American Chemical Society)
 NFPA: National Fire Protection Association (USA)
 HMIS: Hazardous Materials Identification System (USA)
 VOC: Volatile Organic Compounds (USA, EU)
 LC50: Lethal concentration, 50 percent
 LD50: Lethal dose, 50 percent

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*PBT: Persistent, Bioaccumulative and Toxic**vPvB: very Persistent and very Bioaccumulative**NIOSH: National Institute for Occupational Safety**OSHA: Occupational Safety & Health**TLV: Threshold Limit Value**PEL: Permissible Exposure Limit**REL: Recommended Exposure Limit**BEI: Biological Exposure Limit**Flam. Gas 1: Flammable gases – Category 1**Flam. Aerosol 1: Aerosols – Category 1**Press. Gas: Gases under pressure – Compressed gas**Flam. Liq. 2: Flammable liquids – Category 2**Acute Tox. 3: Acute toxicity – Category 3**Acute Tox. 4: Acute toxicity – Category 4**Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A**Carc. 2: Carcinogenicity – Category 2**Carc. 2: Carcinogenicity – Category 2**STOT SE 1: Specific target organ toxicity (single exposure) – Category 1**STOT SE 2: Specific target organ toxicity (single exposure) – Category 2**STOT SE 3: Specific target organ toxicity (single exposure) – Category 3*

US