

Printing date 02/01/2016

Reviewed on 11/23/2015

## 1 Identification

- **Product identifier**
- **Trade name:** CorShield® VpCI®-368 Aerosol
- **Relevant identified uses of the substance or mixture and uses advised against**  
No further relevant information available.
- **Application of the substance / the mixture** Corrosion inhibitors
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Cortec Corporation  
4119 White Bear Parkway  
St. Paul, MN 55110 USA  
Phone (651) 429-1100  
Fax (651) 429-1122
- **Information department:** regulatory@cortecvci.com
- **Emergency telephone number:**  
Spill, Leak, Fire, Exposure, or Accident  
24 hour CHEMTREC contact:  
USA and Canada 1-800-424-9300  
International +1 703-527-3887 (collect calls accepted)

## 2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS02 GHS04 Flame, Gas cylinder

Flam. Aerosol 1 H222 Extremely flammable aerosol.



GHS04 Gas cylinder

Press. Gas H280 Contains gas under pressure; may explode if heated.



GHS08 Health hazard

Asp. Tox. 1 H304 May be fatal if swallowed and enters airways.

- **Label elements**

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

- **Hazard pictograms**



GHS02 GHS04 GHS08

- **Signal word** Danger

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

Distillates (petroleum), hydrotreated light  
isobutane  
propane liquefied

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## Hazard statements

Extremely flammable aerosol.  
Contains gas under pressure; may explode if heated.  
May be fatal if swallowed and enters airways.

## Precautionary statements

Keep away from heat/sparks/open flames/hot surfaces. No smoking.  
Do not pierce or burn, even after use.  
Do not spray on an open flame or other ignition source.  
IF SWALLOWED: Immediately call a POISON CENTER/ doctor.  
Do NOT induce vomiting.  
Store locked up.  
Protect from sunlight. Store in a well-ventilated place.  
Do not expose to temperatures exceeding 50°C/122°F.  
Dispose of contents/container in accordance with local/regional/national/international regulations.

## Other hazards

## Results of PBT and vPvB assessment

PBT: Not applicable.  
vPvB: Not applicable.

## 3 Composition/information on ingredients

### Chemical characterization: Mixtures

Description: Mixture of the substances listed below with nonhazardous additions.

### Dangerous components:

CAS: 64742-47-8	Distillates (petroleum), hydrotreated light	25-50%
EINECS: 265-149-8	⚠ Asp. Tox. 1, H304	
CAS: 75-28-5	isobutane	10-25%
EINECS: 200-857-2	⚠ Flam. Gas 1, H220; ⚠ Press. Gas, H280	
CAS: 74-98-6	propane liquefied	10-25%
EINECS: 200-827-9	⚠ Flam. Gas 1, H220; ⚠ Press. Gas, H280	

### Additional information

In accordance with paragraph (i) of the OSHA Hazard Communication Standard (29 CFR 1910.1200), the specific chemical identity and/or exact percentage composition has been withheld as a trade secret.

This product contains mineral oil CAS number 64742-54-7 which contains less than 3 % DMSO extract as measured by IP 346.

This product contains mineral oil CAS number 64742-65-0 which contains less than 3 % DMSO extract as measured by IP 346.

This product contains mineral oil CAS number 64742-55-8 which contains less than 3 % DMSO extract as measured by IP 346.

This product contains mineral oil CAS number 64742-56-9 which contains less than 3 % DMSO extract as measured by IP 346.

For the wording of the listed hazard phrases refer to section 16.

## 4 First-aid measures

### Description of first aid measures

After inhalation Supply fresh air; consult doctor in case of complaints.  
After skin contact Immediately wash with water and soap and rinse thoroughly.  
After eye contact Rinse opened eye for several minutes under running water.  
After swallowing If symptoms persist consult doctor.

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Do not spray on a naked flame or any incandescent material.  
Use explosion-proof apparatus / fittings and spark-proof tools.

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

• **Storage**

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

Store in a cool location.

Store only in the original receptacle.

Observe official regulations on storing packagings with pressurized containers.

• **Information about storage in one common storage facility:**

Store away from foodstuffs.

Store away from oxidizing agents.

• **Further information about storage conditions:**

Keep receptacle tightly sealed.

Do not gas tight seal receptacle.

Store in cool, dry conditions in well sealed receptacles.

Protect from heat and direct sunlight.

• **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:**

**64742-47-8 Distillates (petroleum), hydrotreated light (25-50%)**

RCP-TWA (USA)	Long-term value: 1200 mg/m <sup>3</sup> Total Hydrocarbons
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**75-28-5 isobutane (10-25%)**

TLV (USA)	Short-term value: 2370 mg/m <sup>3</sup> , 1000 ppm
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**74-98-6 propane liquefied (10-25%)**

PEL (USA)	Long-term value: 1800 mg/m <sup>3</sup> , 1000 ppm
REL (USA)	Long-term value: 1800 mg/m <sup>3</sup> , 1000 ppm
TLV (USA)	refer to Appendix F in TLVs and BEIs book

• **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.

• **Breathing equipment:**



Use suitable respiratory protective device in case of insufficient ventilation.

• **Protection of hands:**

Protective gloves

I.E., Nitrile, Viton, Neoprene

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

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- **Information for doctor**
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **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, sand, extinguishing powder. Do not use water.

- **For safety reasons unsuitable extinguishing agents**  
Water.  
Water with full jet.
- **Special hazards arising from the substance or mixture** No further relevant information available.

## 6 Accidental release measures

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



Wear protective equipment. Keep unprotected persons away.

- Ensure adequate ventilation
- Keep away from ignition sources
- **Environmental precautions:** No special measures required.
- **Methods and material for containment and cleaning up:**  
Ensure adequate ventilation.  
Do not flush with water or aqueous cleansing agents
- **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

- **Handling**
- **Precautions for safe handling**  
Ensure good ventilation/exhaustion at the workplace.  
Open and handle receptacle with care.
- **Information about protection against explosions and fires:**



Keep ignition sources away - Do not smoke.

- Protect against electrostatic charges.
- 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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- **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.
- **Body protection:** Protective work clothing.

### 9 Physical and chemical properties

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

##### · General Information

##### · Appearance:

Form:	Aerosol
Color:	According to product specification
Odor:	Characteristic
Odor threshold:	Not determined.

· pH-value: Not determined.

##### · Change in condition

Melting point/Melting range:	undetermined
Boiling point/Boiling range:	-44 °C (-47 °F) (*)

· Flash point: -97 °C (-143 °F) (\*)

· Flammability (solid, gaseous) Not applicable.

· Ignition temperature: 210 °C (410 °F) (\*)

· Decomposition temperature: Not determined.

· Auto igniting: Product is not selfigniting.

· Danger of explosion: Not determined.

##### · Explosion limits:

Lower:	0.5 Vol % (*)
Upper:	10.9 Vol % (*)

· Vapor pressure at 20 °C (68 °F): 8300 hPa (6226 mm Hg) (\*)

· Density: Not determined

· Relative density: Not determined.

· Vapor density: Not determined.

· Evaporation rate: Not applicable.

##### · Solubility in / Miscibility with

Water: Not miscible or difficult to mix

· Partition coefficient (n-octanol/water): Not determined.

##### · Viscosity:

dynamic:	Not determined.
kinematic:	Not determined.

##### · Other information

The above data are typical values and do not constitute a specification.  
\*Properties have been calculated.

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## 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** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known

## 11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**
- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** No irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**
- **Carcinogenic categories**

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

14808-60-7 | Quartz (SiO<sub>2</sub>)

1

### · NTP (National Toxicology Program)

14808-60-7 | Quartz (SiO<sub>2</sub>)

K

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

None of the ingredients is listed.

## 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 2 (Self-assessment): hazardous for water.



Do not allow product to reach ground water, water course or sewage system.

Danger to drinking water if even small quantities leak into the ground.

### · 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

- Waste treatment methods
- Recommendation



Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

- Uncleaned packagings:
- Recommendation: Disposal must be made according to official regulations.

## 14 Transport information

- UN-Number  
DOT, ADR, IMDG, IATA UN1950
- UN proper shipping name  
DOT, IATA Aerosols, flammable
- ADR 1950 Aerosols
- IMDG AEROSOLS

- Transport hazard class(es)

- DOT



- Class 2.1
- Label 2.1

- ADR



- Class 2 5F Gases
- Label 2.1

- IMDG, IATA



- Class 2.1
- Label 2.1

- Packing group Not applicable
- DOT, ADR, IMDG, IATA Void

- Environmental hazards: Not applicable.

- Special precautions for user Warning: Gases

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· <b>Danger code (Kemler):</b>	-
· <b>EMS Number:</b>	F-D,S-U
· <b>Stowage Code</b>	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.
· <b>Segregation Code</b>	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.
· <b>Transport in bulk according to Annex II of MARPOL/73/78 and the IBC Code</b>	Not applicable.
· <b>Transport/Additional information:</b>	
· <b>ADR</b>	
· <b>Excepted quantities (EQ)</b>	Code: E0 Not permitted as Excepted Quantity
· <b>IMDG</b>	
· <b>Limited quantities (LQ)</b>	IL
· <b>Excepted quantities (EQ)</b>	Code: E0 Not permitted as Excepted Quantity
· <b>UN "Model Regulation":</b>	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.

· **SARA Section 313 (specific toxic chemical listings)**

None of the ingredients is listed.

· **TSCA (Toxic Substances Control Act) (Substances not listed)**

All ingredients are listed.

· **Prop 65 - Chemicals known to cause cancer**14808-60-7 | Quartz (SiO<sub>2</sub>)· **Carcinogenicity categories**· **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

· **TLV (Threshold Limit Value established by ACGIH)**14808-60-7 | Quartz (SiO<sub>2</sub>)

A2

· **MAK (German Maximum Workplace Concentration)**14808-60-7 | Quartz (SiO<sub>2</sub>)

1

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**14808-60-7 | Quartz (SiO<sub>2</sub>)

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



GHS02 GHS04 GHS08

- **Signal word** Danger
  - **Hazard-determining components of labeling:**  
Distillates (petroleum), hydrotreated light  
isobutane  
propane liquefied
  - **Hazard statements**  
Extremely flammable aerosol.  
Contains gas under pressure; may explode if heated.  
May be fatal if swallowed and enters airways.
  - **Precautionary statements**  
Keep away from heat/sparks/open flames/hot surfaces. No smoking.  
Do not pierce or burn, even after use.  
Do not spray on an open flame or other ignition source.  
IF SWALLOWED: Immediately call a POISON CENTER/ doctor.  
Do NOT induce vomiting.  
Store locked up.  
Protect from sunlight. Store in a well-ventilated place.  
Do not expose to temperatures exceeding 50°C/122°F.  
Dispose of contents/container in accordance with local/regional/national/international regulations.
  - **National regulations**
  - **Technical instructions (air):**
- | Class | Share in % |
|-------|------------|
| NK    | 18.3       |
- **Water hazard class:** Water hazard class 2 (Self-assessment): hazardous for water.
  - **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.  
Cortec Corporation does not warrant any translation of this SDS not created by Cortec Corporation.

- **Relevant phrases**  
H220 Extremely flammable gas.  
H280 Contains gas under pressure; may explode if heated.  
H304 May be fatal if swallowed and enters airways.
- **Date of preparation / last revision** 02/01/2016 / -
- **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

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ELINCS: European List of Notified Chemical Substances  
CAS: Chemical Abstracts Service (division of the American Chemical Society)  
PBT: Persistent, Bioaccumulative and Toxic  
vPvB: very Persistent and very Bioaccumulative  
NIOSH: National Institute for Occupational Safety  
OSHA: Occupational Safety & Health  
Flam. Gas 1: Flammable gases, Hazard Category 1  
Flam. Aerosol 1: Flammable aerosols, Hazard Category 1  
Press. Gas: Gases under pressure: Compressed gas  
Asp. Tox. 1: Aspiration hazard, Hazard Category 1

**\* Data compared to the previous version altered.**

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