

Material Safety Data Sheet

acc. to ISO/DIS 11014

Printing date 02/20/2012

Reviewed on 02/20/2012







1 Identification of the substance/mixture and of the company/undertaking

- **Product identifier**
- **Trade name:** CorShield VpCI-369 Aerosol
- **Application of the substance / the preparation** 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:**
info@cortecvci.com
Product safety department.
- **Emergency telephone number:** Chemtrec (for spill, leak, fire exposure or accident): 1-800-424-9300

2 Composition/information on ingredients

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

- **Dangerous components:**
Dangerous components:

CAS: 64742-52-5 EINECS: 265-155-0	Distillates (petroleum), hydrotreated heavy naphthenic R66	35-45%
CAS: 75-28-5 EINECS: 200-857-2	isobutane  F+ R12  H220;  H280	19-20%
CAS: 74-98-6 EINECS: 200-827-9	propane liquefied  F+ R12  H220;  H280	15-16%

- **Additional information** For the wording of the listed risk phrases refer to section 16.

3 Hazards identification

- **Classification of the substance or mixture**



GHS02 Flame

H222 Extremely flammable aerosol.

- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**

Repeated exposure may cause skin dryness or cracking.

- **Information concerning particular hazards for human and environment:**

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

Warning! Pressurized container.

- **Label elements**

- **GHS label elements** The product is classified and labelled according to the Globally Harmonized System (GHS).
- **Hazard pictograms** GHS02
- **Signal word** Danger

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- **Hazard statements**

Extremely flammable aerosol.

- **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 no expose to temperatures exceeding 50 °C/122 °F.

- **Classification system**

- **NFPA ratings (scale 0-4)**



Health = 2

Fire = 3

Reactivity = 1

- **HMIS rating system (0-4)**



Health = 2

Flammability = 3

Reactivity = 1

4 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.

5 Firefighting measures

- **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** Water with full jet.
- **Special hazards arising from the substance or mixture**
In certain fire conditions, traces of other toxic gases cannot be excluded.
- **Protective equipment:** Wear self-contained respiratory protective device.

6 Accidental release measures

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

Keep away from ignition sources

Ensure adequate ventilation



Wear protective equipment. Keep unprotected persons away.

- **Environmental precautions:**

Prevent seepage into sewage system, workpits and cellars.

Do not allow to enter sewers/ surface or ground water.

- **Methods and material for containment and cleaning up:**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Ensure adequate ventilation.

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Do not flush with water or aqueous cleansing agents

· **Reference to other sections**

See Section 13 for disposal information.

See Section 8 for information on personal protection equipment.

See Section 7 for information on safe handling

7 Handling and storage

· **Handling**

· **Precautions for safe handling** Open and handle receptacle with care.

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

Use explosion-proof apparatus / fittings and spark-proof tools.



Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

· **Storage**

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

Use only receptacles specifically permitted for this substance/product.

Store in a cool location.

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

Store away from oxidizing agents.

Store away from foodstuffs.

· **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.

· **Components with limit values that require monitoring at the workplace:**

75-28-5 isobutane (1920%)

REL 1900 mg/m³, 800 ppm

TLV Varies mg/m³, 1000 ppm

74-98-6 propane liquefied (15-16%)

REL 1800 mg/m³, 1000 ppm

REL 1800 mg/m³, 1000 ppm

TLV Varies mg/m³, 1000 ppm

471-34-1 calcium carbonate (6.0%)

REL 15* 5** mg/m³

*total dust **respirable fraction

REL 10* 5** mg/m³

*total dust **respirable fraction

TLV TLV withdrawn

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

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- **Personal protective equipment**
- **General protective and hygienic measures**
Do not inhale gases / fumes / aerosols.
Immediately remove all soiled and contaminated clothing
The usual precautionary measures for handling chemicals should be followed.
Wash hands before breaks and at the end of work.
- **Breathing equipment:**



In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

Use suitable respiratory protective device in case of insufficient ventilation.

- **Protection of hands:**
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
- **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

· General Information	
· Appearance:	
Form:	Aerosol
Color:	According to product specification
· Odor:	Characteristic
· Change in condition	
Melting point/Melting range:	undetermined
Boiling point/Boiling range:	Not applicable, as aerosol
· Flash point:	Not applicable, as aerosol
· Ignition temperature:	460°C (860 °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:	1.7 Vol %
Upper:	10.9 Vol %
· Vapor pressure at 20°C (68 °F):	8300 hPa (6226 mm Hg)
· Density at 20°C (68 °F):	0.90-0.91 g/cm ³ (7.511-7.594 lbs/gal)
· Solubility in / Miscibility with	
Water:	Not miscible or difficult to mix
· Segregation coefficient (n-octanol/water): Not determined.	

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· Viscosity:	
dynamic:	Not determined.
kinematic:	Not determined.
· Solvent content:	
Organic solvents:	14-16 %
Solids content:	74-80 %
· Other information	The above data are typical values and do not constitute a specification.

10 Stability and reactivity

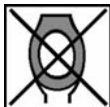
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known

11 Toxicological information

- **Acute toxicity:**
- **Primary irritant effect:**
- **on the skin:** Repeated or prolonged skin contact with this product may produce skin irritation.
- **on the eye:** May be irritating.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**
The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:
Harmful

12 Ecological information

- **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.
- **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.

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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	UN1950
· DOT, ADR, IMDG, IATA	UN1950
· UN proper shipping name	AEROSOLS, flammable
· DOT, IATA	AEROSOLS, flammable
· ADR	1950 AEROSOLS
· IMDG	AEROSOLS
· Transport hazard class(es)	
· DOT, IMDG, IATA	
· Class	2.1
· Label	2.1
· ADR	
· Class	2 5F Gases
· Label	2.1
· Packing group	
· DOT, ADR, IMDG, IATA	Void
· Environmental hazards:	
· Marine pollutant:	Yes
· Special precautions for user	Warning: Gases
· Danger code (Kemler):	-
· EMS Number:	F-D,S-U
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.

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· **UN "Model Regulation":** UN1950, AEROSOLS, 2.1

15 Regulatory information

· **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)**

All ingredients are listed.

· **Prop 65 - Chemicals known to cause cancer**

None of the ingredients is listed.

· **Carcinogenicity categories**

· **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

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

Tertiary alkanolamine

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· **NTP (National Toxicology Program)**

None of the ingredients is listed.

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

None of the ingredients is listed.

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

None of the ingredients is listed.

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

· **Hazard pictograms** GHS02

· **Signal word** Danger

· **Hazard statements**

Extremely flammable aerosol.

· **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 50 °C/122 °F.

· **National regulations**

· **Technical instructions (air):**

Class	Share in %
NK	16.5

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.

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· 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)

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

ICAO: International Civil Aviation Organization

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

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