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

- · 1.1 Product identifier
- · Trade name: <u>VpCI®-369 M</u>
- · 1.2 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
- · 1.3 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
- · 1.4 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)

UK +(44)-870-8200418

SECTION 2: Hazards identification

- · 2.1 Classification of the substance or mixture
- · Classification according to Regulation (EC) No 1272/2008



GHS02 flame

Flam. Liq. 3 H226 Flammable liquid and vapour.



GHS08 health hazard

STOT RE 1 H372 Causes damage to the central nervous system through prolonged or repeated exposure.

Aquatic Chronic 3 H412 Harmful to aquatic life with long lasting effects.

- · 2.2 Label elements
- · Labelling according to Regulation (EC) No 1272/2008

The product is classified and labelled according to the CLP regulation.

· Hazard pictograms





GHS02 GHS08

- · Signal word Danger
- · Hazard-determining components of labelling:

Stoddard solvent

· Hazard statements

H226 Flammable liquid and vapour.

H372 Causes damage to the central nervous system through prolonged or repeated exposure.

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H412 Harmful to aquatic life with long lasting effects.

· Precautionary statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P241 Use explosion-proof electrical/ventilating/lighting/equipment.

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/

shower.

P403+P235 Store in a well-ventilated place. Keep cool.

P501 Dispose of contents/container in accordance with local/regional/national/international

regulations.

· Additional information:

Contains 2-(heptadecenyl)-4,5-dihydro-1H-imidazole-1-ethano. May produce an allergic reaction.

- · 2.3 Other hazards
- · Results of PBT and vPvB assessment
- · **PBT:** Not applicable.
- · vPvB: Not applicable.

SECTION 3: Composition/information on ingredients

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

· Ingredients:		
CAS: 8052-41-3 EINECS: 232-489-3	Stoddard solvent STOT RE 1, H372; Asp. Tox. 1, H304	25-50%
CAS: 95-63-6 EINECS: 202-436-9	1,2,4-trimethylbenzene Flam. Liq. 3, H226; Aquatic Chronic 2, H411; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335	≤ 2.5%
CAS: 1330-20-7 EINECS: 215-535-7	xylene, mixed isomers, pure Flam. Liq. 3, H226; Acute Tox. 4, H312; Acute Tox. 4, H332; Skin Irrit. 2, H315	≤ 2.5%
CAS: 101-83-7	dicyclohexylamine Skin Corr. 1B, H314; Aquatic Acute 1, H400; Aquatic Chronic 1, H410; Acute Tox. 4, H302	≤ 2.5%
CAS: 27136-73-8 EINECS: 248-248-0	2-(heptadecenyl)-4,5-dihydro-1H-imidazole-1-ethano Skin Corr. 1C, H314; Eye Dam. 1, H318; Aquatic Acute 1, H400; Aquatic Chronic 1, H410; Acute Tox. 4, H302; Skin Sens. 1, H317	≤ 2.5%

· Additional information

This product contains mineral oil CAS no. 64742-52-5, which meets EU requirement of less than 3%(w/w) DMSO extract for total polycyclic aromatic compound (PAC) using IP346.

The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

The stoddard solvent (CAS 8052-41-3) contains <0.1% benzene, therefore the classification as a carcinogen/mutagen does not apply.

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

SECTION 4: First aid measures

- · 4.1 Description of first aid measures
- · After inhalation Supply fresh air; consult doctor in case of complaints.
- · After skin contact Immediately rinse with water.

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- · After eye contact Rinse opened eye for several minutes under running water.
- · After swallowing Do not induce vomiting; call for medical help immediately.
- 4.2 Most important symptoms and effects, both acute and delayed No further relevant information available.
- · Information for doctor Show this safety data sheet to the doctor in attendance.
- 4.3 Indication of any immediate medical attention and special treatment needed No further relevant information available.

SECTION 5: Firefighting measures

- · 5.1 Extinguishing media
- · Suitable extinguishing agents



CO2, sand, extinguishing powder. Do not use water.

· For safety reasons unsuitable extinguishing agents

Water.

Water with full jet.

· 5.2 Special hazards arising from the substance or mixture

In certain fire conditions, traces of other toxic gases cannot be excluded.

- · 5.3 Advice for firefighters
- · Protective equipment: Wear self-contained respiratory protective device.

SECTION 6: Accidental release measures

· 6.1 Personal precautions, protective equipment and emergency procedures



Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation

Keep away from ignition sources

· 6.2 Environmental precautions:

Do not allow undiluted product to enter sewers/surface or ground water

Inform respective authorities in case of seepage into water course or sewage system.

· 6.3 Methods and material for containment and cleaning up:

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

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

Do not flush with water or aqueous cleansing agents

· 6.4 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.

SECTION 7: Handling and storage

· 7.1 Precautions for safe handling

Keep receptacles tightly sealed.

Keep away from heat and direct sunlight.

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Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

· Information about protection against explosions and fires:



Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

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

- · 7.2 Conditions for safe storage, including any incompatibilities
- ·Storage
- · Requirements to be met by storerooms and receptacles:

Use only receptacles specifically permitted for this substance/product.

· Information about storage in one common storage facility:

Store away from foodstuffs.

Store away from oxidising agents.

· Further information about storage conditions:

Keep receptacle tightly sealed.

Protect from heat and direct sunlight.

· 7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

- · Additional information about design of technical systems: No further data; see item 7.
- · 8.1 Control parameters

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

95-63-6 1,2,4-trimethylbenzene ($\leq 2.5\%$)

WEL Long-term value: 125 mg/m³, 25 ppm

ILV

1330-20-7 xylene, mixed isomers, pure ($\leq 2.5\%$)

WEL Short-term value: 441 mg/m³, 100 ppm

Long-term value: 220 mg/m³, 50 ppm

Sk; BMGV

· Ingredients with biological limit values:

1330-20-7 xylene, mixed isomers, pure ($\leq 2.5\%$)

BMGV 650 mmol/mol creatinine

Medium: urine

Sampling time: post shift

Parameter: methyl hippuric acid

- · Additional information: The lists that were valid during the creation were used as basis.
- · 8.2 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.

Do not inhale gases / fumes / aerosols.

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· Breathing equipment:

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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.

· 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

· 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.

SECTION 9: Physical and ch	emical properties
· 9.1 Information on basic physical a	nd chemical properties
· General Information	
· Appearance:	
Form:	Liquid
Colour:	Beige
· Odour:	Characteristic Not determined.
· Odour threshold:	Not determined.
· pH-value:	Not determined.
· Change in condition	
Melting point/Melting range:	undetermined
Boiling point/Boiling range:	370 °C (*)
· Flash point:	41 °C
· Flammability (solid, gaseous)	Not applicable.
· Ignition temperature:	265 °C (*)
· Decomposition temperature:	Not determined.
· Self igniting:	Product is not selfigniting.
· Danger of explosion:	Product is not explosive. However, formation of explosive air/vapor mixtures are possible.
· Explosion limits:	
Lower:	Not determined.
Upper:	Not determined.
· Vapour pressure at 20 °C:	6.6 hPa (*)
· Density at 20 °C:	0.87-0.92 g/cm³
· Relative density	Not determined.
· Vapour density	Not determined.
· Evaporation rate	Not determined.

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· Solubility in / Miscibility with

Water: Not miscible or difficult to mix

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

· Viscosity:

dynamic: Not determined. **kinematic at 40 °C:** 547.95 mm²/s

• 9.2 Other information The above data are typical values and do not constitute a specification.

*Properties have been calculated.

SECTION 10: Stability and reactivity

- 10.1 Reactivity No further relevant information available.
- · 10.2 Chemical stability
- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- 10.3 Possibility of hazardous reactions No dangerous reactions known
- 10.4 Conditions to avoid No further relevant information available.
- 10.5 Incompatible materials: No further relevant information available.
- 10.6 Hazardous decomposition products: No dangerous decomposition products known

SECTION 11: Toxicological information

- · 11.1 Information on toxicological effects
- · Acute toxicity Based on available data, the classification criteria are not met.
- · LD/LC50 values that are relevant for classification:

		ixed isomers, pure
Oral	LD50	8700 mg/kg (Rat)
Dermal	LD50	2000 mg/kg (Rat)
Inhalative	LC50/4 h	8700 mg/kg (Rat) 2000 mg/kg (Rat) 6350 mg/l (Rat)

101-83-7 dicyclohexylamine

Oral LD50 373 mg/kg (Rat)

- · Primary irritant effect:
- · Skin corrosion/irritation Based on available data, the classification criteria are not met.
- · Serious eye damage/irritation Based on available data, the classification criteria are not met.
- · Respiratory or skin sensitisation Based on available data, the classification criteria are not met.
- · CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)
- · Germ cell mutagenicity Based on available data, the classification criteria are not met.
- · Carcinogenicity Based on available data, the classification criteria are not met.
- · Reproductive toxicity Based on available data, the classification criteria are not met.
- · STOT-single exposure Based on available data, the classification criteria are not met.
- · STOT-repeated exposure

Causes damage to the central nervous system through prolonged or repeated exposure.

· Aspiration hazard Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

- · 12.1 Toxicity
- · Aquatic toxicity: No further relevant information available.

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- 12.2 Persistence and degradability No further relevant information available.
- 12.3 Bioaccumulative potential No further relevant information available.
- · 12.4 Mobility in soil No further relevant information available.
- · Ecotoxical effects:
- · Remark: Harmful to fish
- · Additional ecological information:
- · General notes:

Water hazard class 2 (German Regulation) (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.

Harmful to aquatic organisms

- · 12.5 Results of PBT and vPvB assessment
- · **PBT:** Not applicable.
- · vPvB: Not applicable.
- 12.6 Other adverse effects No further relevant information available.

SECTION 13: Disposal considerations

- · 13.1 Waste treatment methods
- · Recommendation



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

· European waste catalogue

The European Waste Catalogue (EWC) waste codes do not refer to product but to origin. The manufacturer is therefore unable to quote a waste code for products which are used in various industries. Any codes shown should be regarded as a recommendation to the user.

07 00 00	WASTES FROM ORGANIC CHEMICAL PROCESSES					
07 07 00	vastes from the MFSU of fine chemicals and chemical products not otherwise specified					
07 07 99	wastes not otherwise specified					
HP 3	Flammable					
HP 5	Specific Target Organ Toxicity (STOT)/Aspiration Toxicity					
HP 14	Ecotoxic					

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

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· ADR, IMDG, IATA UN1268

· 14.2 UN proper shipping name

· ADR 1268 PETROLEUM DISTILLATES, N.O.S.

· **IMDG** PETROLEUM DISTILLATES, N.O.S.

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	(Contd. of page 1)
IATA	Petroleum distillates, n.o.s.
14.3 Transport hazard class(es)	
ADR, IMDG, IATA	
Class	3 Flammable liquids.
Label	3
14.4 Packing group	Ш
ADR, IMDG, IATA	111
14.5 Environmental hazards: Marine pollutant:	No
14.6 Special precautions for user Danger code (Kemler):	Warning: Flammable liquids.
EMS Number:	F-E.S-E
Stowage Category	A A
14.7 Transport in bulk according to Ann	nex II of
Marpol and the IBC Code	Not applicable.
Transport/Additional information:	
ADR	
Limited quantities (LQ)	5L
Excepted quantities (EQ)	Code: E1
	Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
Transport category	3
Tunnel restriction code	D/E
IMDG	
Limited quantities (LQ)	5L
Excepted quantities (EQ)	Code: E1
	Maximum net quantity per inner packaging: 30 ml
	Maximum net quantity per outer packaging: 1000 ml
UN "Model Regulation":	UN 1268 PETROLEUM DISTILLATES, N.O.S., 3, III

SECTION 15: Regulatory information

- · 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- · Directive 2012/18/EU
- · Named dangerous substances ANNEX I None of the ingredients is listed.
- · Seveso category P5c
- Qualifying quantity (tonnes) for the application of lower-tier requirements 5,000 t
- · Qualifying quantity (tonnes) for the application of upper-tier requirements 50,000 t

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· National regulations

· Information about limitation of use:

Workers are not allowed to be exposed to the hazardous carcinogenic materials contained in this preparation. Exceptions can be made by the authorities in certain cases.

· Technical instructions (air):

Class	Share in %
NK	4.3

- · Water hazard class: Water hazard class 2 (Self-assessment): hazardous for water.
- · 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 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 warranty any translation of this SDS not created by Cortec Corporation.

· Relevant phrases

H226 Flammable liquid and vapour.

H302 Harmful if swallowed.

H304 May be fatal if swallowed and enters airways.

H312 Harmful in contact with skin.

H314 Causes severe skin burns and eye damage.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H318 Causes serious eye damage.

H319 Causes serious eye irritation.

H332 Harmful if inhaled.

H335 May cause respiratory irritation.

H372 Causes damage to the central nervous system through prolonged or repeated exposure.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

H411 Toxic to aquatic life with long lasting effects.

· Abbreviations and acronyms:

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

ICAO: International Civil Aviation Organisation

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

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

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)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Flam. Liq. 3: Flammable liquids, Hazard Category 3

Acute Tox. 4: Acute toxicity, Hazard Category 4

Skin Corr. 1B: Skin corrosion/irritation, Hazard Category 1B

Skin Corr. 1C: Skin corrosion/irritation, Hazard Category 1C

Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2

Eye Dam. 1: Serious eye damage/eye irritation, Hazard Category 1

Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2

Skin Sens. 1: Sensitisation - Skin, Hazard Category 1

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Safety data sheet according to 1907/2006/EC, Article 31

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STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3 STOT RE 1: Specific target organ toxicity - Repeated exposure, Hazard Category 1 Asp. Tox. 1: Aspiration hazard, Hazard Category 1

Aquatic Acute 1: Hazardous to the aquatic environment - AcuteHazard, Category 1

Aquatic Chronic 1: Hazardous to the aquatic environment - Chronic Hazard, Category 1
Aquatic Chronic 2: Hazardous to the aquatic environment - Chronic Hazard, Category 2
Aquatic Chronic 3: Hazardous to the aquatic environment - Chronic Hazard, Category 3

* * Data compared to the previous version altered.

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