



1 Identification

- **Product identifier**
- **Trade name:** 50134 & 50136 World Class DTM Epoxy Activator
- **Article number:** 50134, 50136
- **Application of the substance / the mixture** Coating

2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS02 Flame

Flam. Liq. 2 H225 Highly flammable liquid and vapor.



GHS08 Health hazard

Carc. 2 H351 Suspected of causing cancer.

STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure.



GHS05 Corrosion

Eye Dam. 1 H318 Causes serious eye damage.



GHS07

Skin Irrit. 2 H315 Causes skin irritation.

Skin Sens. 1 H317 May cause an allergic skin reaction.

STOT SE 3 H335 May cause respiratory irritation.

- **Label elements**

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

(Contd. on page 2)



Trade name: 50134 & 50136 World Class DTM Epoxy Activator

(Contd. of page 1)

· Hazard pictograms



GHS02 GHS05 GHS07 GHS08

· Signal word *Danger*

· Hazard-determining components of labeling:

KETIMINE RESIN

4-chloro-alpha,alpha,alpha-trifluorotoluene

ethylbenzene

butan-1-ol

· Hazard statements

H225 Highly flammable liquid and vapor.

H315 Causes skin irritation.

H318 Causes serious eye damage.

H317 May cause an allergic skin reaction.

H351 Suspected of causing cancer.

H335 May cause respiratory irritation.

H373 May cause damage to organs through prolonged or repeated exposure.

· Precautionary statements

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.

P240 Ground/bond container and receiving equipment.

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

P242 Use only non-sparking tools.

P243 Take precautionary measures against static discharge.

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

P264 Wash thoroughly after handling.

P271 Use only outdoors or in a well-ventilated area.

P272 Contaminated work clothing must not be allowed out of the workplace.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P303+P361+P353 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P308+P313 IF exposed or concerned: Get medical advice/attention.

P310 Immediately call a POISON CENTER/doctor.

P314 Get medical advice/attention if you feel unwell.

P321 Specific treatment (see on this label).

P333+P313 If skin irritation or rash occurs: Get medical advice/attention.

P362+P364 Take off contaminated clothing and wash it before reuse.

P363 Wash contaminated clothing before reuse.

P370+P378 In case of fire: Use for extinction: CO₂, powder or water spray.

P403+P233 Store in a well-ventilated place. Keep container tightly closed.

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

P405 Store locked up.

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

(Contd. on page 3)



Trade name: 50134 & 50136 World Class DTM Epoxy Activator

(Contd. of page 2)

- **Classification system:**
- **NFPA ratings (scale 0 - 4)**



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



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

3 Composition/information on ingredients

- **Chemical characterization: Mixtures**
- **Description:**
Mixture: consisting of the following components.
Weight percentages

- **Dangerous components:**

98-56-6	4-chloro-alpha,alpha,alpha-trifluorotoluene	30 - 40%
	KETIMINE RESIN	13 - 30%
1330-20-7	xylene	13 - 30%
67-64-1	acetone	7 - 10%
71-36-3	butan-1-ol	7 - 10%
100-41-4	ethylbenzene	1.5 - 5%
108-10-1	4-methylpentan-2-one	1-1.5%

4 First-aid measures

- **Description of first aid measures**
- **After inhalation:**
Supply fresh air and to be sure call for a doctor.
In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.
- **After swallowing:** If symptoms persist consult doctor.
- **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.

USA

(Contd. on page 4)



Printing date 06/28/2017

Reviewed on 06/21/2017

Trade name: 50134 & 50136 World Class DTM Epoxy Activator

(Contd. of page 3)

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

1330-20-7	xylene	130 ppm
67-64-1	acetone	200 ppm
71-36-3	butan-1-ol	60 ppm
100-41-4	ethylbenzene	33 ppm
108-10-1	4-methylpentan-2-one	75 ppm

· **PAC-2:**

1330-20-7	xylene	920* ppm
67-64-1	acetone	3200* ppm
71-36-3	butan-1-ol	800 ppm
100-41-4	ethylbenzene	1100* ppm
108-10-1	4-methylpentan-2-one	500 ppm

· **PAC-3:**

1330-20-7	xylene	2500* ppm
67-64-1	acetone	5700* ppm
71-36-3	butan-1-ol	8000** ppm
100-41-4	ethylbenzene	1800* ppm
108-10-1	4-methylpentan-2-one	3000* ppm

USA

(Contd. on page 5)



Trade name: 50134 & 50136 World Class DTM Epoxy Activator

(Contd. of page 4)

7 Handling and storage

- **Handling:**
- **Precautions for safe handling** No special measures required.
- **Information about protection against explosions and fires:**
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** Store in a cool location.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**
Keep receptacle tightly sealed.
Store in cool, dry conditions in well sealed receptacles.
- **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 other constituents have no known exposure limits.

1330-20-7 xylene

PEL	Long-term value: 435 mg/m ³ , 100 ppm
REL	Short-term value: 655 mg/m ³ , 150 ppm Long-term value: 435 mg/m ³ , 100 ppm
TLV	Short-term value: 651 mg/m ³ , 150 ppm Long-term value: 434 mg/m ³ , 100 ppm
BEI	

67-64-1 acetone

PEL	Long-term value: 2400 mg/m ³ , 1000 ppm
REL	Long-term value: 590 mg/m ³ , 250 ppm
TLV	Short-term value: 1187 mg/m ³ , 500 ppm Long-term value: 594 mg/m ³ , 250 ppm
BEI	

71-36-3 butan-1-ol

PEL	Long-term value: 300 mg/m ³ , 100 ppm
REL	Ceiling limit value: 150 mg/m ³ , 50 ppm Skin
TLV	Long-term value: 61 mg/m ³ , 20 ppm

100-41-4 ethylbenzene

PEL	Long-term value: 435 mg/m ³ , 100 ppm
-----	--

(Contd. on page 6)



Printing date 06/28/2017

Reviewed on 06/21/2017

Trade name: 50134 & 50136 World Class DTM Epoxy Activator

(Contd. of page 5)

REL	Short-term value: 545 mg/m ³ , 125 ppm Long-term value: 435 mg/m ³ , 100 ppm
TLV	Long-term value: 87 mg/m ³ , 20 ppm
BEI	

108-10-1 4-methylpentan-2-one

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:

1330-20-7 xylene

BEI	1.5 g/g creatinine Medium: urine Time: end of shift Parameter: Methylhippuric acids
-----	--

67-64-1 acetone

BEI	50 mg/L Medium: urine Time: end of shift Parameter: Acetone (nonspecific)
-----	--

100-41-4 ethylbenzene

BEI	0.7 g/g creatinine Medium: urine Time: end of shift at end of workweek Parameter: Sum of mandelic acid and phenylglyoxylic acid (nonspecific, semi-quantitative)
	- Medium: end-exhaled air Time: not critical Parameter: Ethyl benzene (semi-quantitative)

108-10-1 4-methylpentan-2-one

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.
- Store protective clothing separately.
- Avoid contact with the skin.
- Avoid contact with the eyes and skin.

(Contd. on page 7)



Trade name: 50134 & 50136 World Class DTM Epoxy Activator

(Contd. of page 6)

· **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.

· **Protection of hands:**

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

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



Protective gloves

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

· **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: Liquid
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: 55.8-56.6 °C

· **Flash point:** -18 °C

· **Flammability (solid, gaseous):** Not applicable.

· **Ignition temperature:** 340 °C

· **Decomposition temperature:** Not determined.

· **Auto igniting:** Product is not selfigniting.

· **Danger of explosion:** In use, may form flammable/explosive vapour-air mixture.

(Contd. on page 8)



Trade name: 50134 & 50136 World Class DTM Epoxy Activator

(Contd. of page 7)

· Explosion limits:	
Lower:	1.1 Vol %
Upper:	7.0 Vol %
· Vapor pressure at 20 °C: 6.7 hPa	
· Density at 20 °C: 1.01779 g/cm ³	
· Relative density Not determined.	
· Vapor density Not determined.	
· Evaporation rate Not determined.	
· 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.
· Solvent content:	
Organic solvents:	73.1 %
VOC content:	26.6 %
	455.4 g/l / 3.80 lb/gl
· Solids content: 26.9 %	
· 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** 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:**

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

1330-20-7 xylene

Oral	LD50	4300 mg/kg (rat)
Dermal	LD50	2000 mg/kg (rabbit)

- **Primary irritant effect:**
- **on the skin:** Irritant to skin and mucous membranes.
- **on the eye:** Strong irritant with the danger of severe eye injury.
- **Sensitization:** Sensitization possible through skin contact.

(Contd. on page 9)



Printing date 06/28/2017

Reviewed on 06/21/2017

Trade name: 50134 & 50136 World Class DTM Epoxy Activator

(Contd. of page 8)

· **Additional toxicological information:**

The product shows the following dangers according to internally approved calculation methods for preparations:
Irritant

· **Carcinogenic categories**

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

1330-20-7	xylene	3
100-41-4	ethylbenzene	2B
108-10-1	4-methylpentan-2-one	2B

· **NTP (National Toxicology Program)**

None of the ingredients is listed.

· **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.
Must not reach bodies of water or drainage ditch undiluted or unneutralized.
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.

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** UN1993

(Contd. on page 10)



Trade name: 50134 & 50136 World Class DTM Epoxy Activator

(Contd. of page 9)

· **UN proper shipping name**
 · **DOT**
 · **ADR**
 · **IMDG, IATA**

Flammable liquids, n.o.s. (Acetone, KETIMINE RESIN)
 1993 Flammable liquids, n.o.s. (Acetone, KETIMINE RESIN), special provision 640D
 FLAMMABLE LIQUID, N.O.S. (ACETONE, KETIMINE RESIN)

· **Transport hazard class(es)**

· **DOT**



· **Class**
 · **Label**

3 Flammable liquids
 3

· **ADR, IMDG, IATA**



· **Class**
 · **Label**

3 Flammable liquids
 3

· **Packing group**

· **DOT, ADR, IMDG, IATA**

II

· **Environmental hazards:**

· **Marine pollutant:**

No

· **Special precautions for user**

Warning: Flammable liquids

· **EMS Number:**

F-E,S-E

· **Stowage Category**

B

· **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: 1 L
 On cargo aircraft only: 5 L

· **ADR**

· **Excepted quantities (EQ)**

Code: E2
 Maximum net quantity per inner packaging: 30 ml
 Maximum net quantity per outer packaging: 500 ml

· **IMDG**

· **Limited quantities (LQ)**

· **Excepted quantities (EQ)**

1L
 Code: E2
 Maximum net quantity per inner packaging: 30 ml
 Maximum net quantity per outer packaging: 500 ml

(Contd. on page 11)



Printing date 06/28/2017

Reviewed on 06/21/2017

Trade name: 50134 & 50136 World Class DTM Epoxy Activator

(Contd. of page 10)

· UN "Model Regulation": UN 1993 FLAMMABLE LIQUIDS, N.O.S., SPECIAL PROVISION 640D (ACETONE, KETIMINE RESIN), 3, II

15 Regulatory information

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

· Sara

· Section 355 (extremely hazardous substances):

None of the ingredient is listed.

· Section 313 (Specific toxic chemical listings):

1330-20-7 xylene

71-36-3 butan-1-ol

100-41-4 ethylbenzene

108-10-1 4-methylpentan-2-one

· TSCA (Toxic Substances Control Act):

98-56-6 4-chloro-alpha,alpha,alpha-trifluorotoluene

1330-20-7 xylene

67-64-1 acetone

71-36-3 butan-1-ol

100-41-4 ethylbenzene

108-10-1 4-methylpentan-2-one

· Proposition 65

· Chemicals known to cause cancer:

1330-20-7 xylene

100-41-4 ethylbenzene

108-10-1 4-methylpentan-2-one

· 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:

108-10-1 4-methylpentan-2-one

· Cancerogenity categories

· EPA (Environmental Protection Agency)

1330-20-7 xylene I

67-64-1 acetone I

71-36-3 butan-1-ol D

100-41-4 ethylbenzene D

108-10-1 4-methylpentan-2-one I

· TLV (Threshold Limit Value established by ACGIH)

1330-20-7 xylene A4

(Contd. on page 12)



Printing date 06/28/2017

Reviewed on 06/21/2017

Trade name: 50134 & 50136 World Class DTM Epoxy Activator

(Contd. of page 11)

67-64-1	acetone	A4
100-41-4	ethylbenzene	A3

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

None of the ingredients is listed.

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

· **Hazard pictograms**



GHS02 GHS05 GHS07 GHS08

· **Signal word** Danger

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

KETIMINE RESIN

4-chloro-alpha,alpha,alpha-trifluorotoluene

ethylbenzene

butan-1-ol

· **Hazard statements**

H225 Highly flammable liquid and vapor.

H315 Causes skin irritation.

H318 Causes serious eye damage.

H317 May cause an allergic skin reaction.

H351 Suspected of causing cancer.

H335 May cause respiratory irritation.

H373 May cause damage to organs through prolonged or repeated exposure.

· **Precautionary statements**

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.

P240 Ground/bond container and receiving equipment.

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

P242 Use only non-sparking tools.

P243 Take precautionary measures against static discharge.

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

P264 Wash thoroughly after handling.

P271 Use only outdoors or in a well-ventilated area.

P272 Contaminated work clothing must not be allowed out of the workplace.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P303+P361+P353 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P308+P313 IF exposed or concerned: Get medical advice/attention.

P310 Immediately call a POISON CENTER/doctor.

P314 Get medical advice/attention if you feel unwell.

P321 Specific treatment (see on this label).

P333+P313 If skin irritation or rash occurs: Get medical advice/attention.

P362+P364 Take off contaminated clothing and wash it before reuse.

P363 Wash contaminated clothing before reuse.

(Contd. on page 13)



Printing date 06/28/2017

Reviewed on 06/21/2017

Trade name: 50134 & 50136 World Class DTM Epoxy Activator

(Contd. of page 12)

P370+P378 In case of fire: Use for extinction: CO₂, powder or water spray.
P403+P233 Store in a well-ventilated place. Keep container tightly closed.
P403+P235 Store in a well-ventilated place. Keep cool.
P405 Store locked up.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· **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.

· **Date of preparation / last revision** 06/28/2017 / 9

· **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

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

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. Liq. 2: Flammable liquids – Category 2

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Dam. 1: Serious eye damage/eye irritation – Category 1

Skin Sens. 1: Skin sensitisation – Category 1

Carc. 2: Carcinogenicity – Category 2

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2

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

USA