Printing date 06/01/2016



Reviewed on 01/08/2016

1 Identification

*

- · Product identifier
- Trade name: 43110 Composite Adhesive and Repair
- Article number: 43110
- Application of the substance / the mixture Coating Epoxy Adhesive
- Details of the supplier of the safety data sheet
 Manufacturer/Supplier: SEM Products Inc. 1685 Overview Drive Rock Hill, SC 29730 803 207 8225
- · Information department:
- cust_care@semproducts.com : SEM Products,Inc. 1685 Overview Dr. Rock Hill, SC 29730 : phone 1-800-831-1122, M - TH 7am - 4pm EDT
- Emergency telephone number: CHEMTREC 1-800-424-9300

2 Hazard(s) identification

· Classification of the substance or mixture

GHS08 Health hazard

\sim	
Muta. 2	H341 Suspected of causing genetic defects.
Carc. 2	H351 Suspected of causing cancer.
Repr. 2	H361 Suspected of damaging fertility or the unborn child.
STOT RE 2	H373 May cause damage to organs through prolonged or repeated exposure.
GH	IS05 Corrosion
Skin Corr. 1B	B H314 Causes severe skin burns and eye damage.
Eye Dam. 1	H318 Causes serious eye damage.
\mathbf{v}	IS07 H302 Harmful if swallowed. H317 May cause an allergic skin reaction.
STOT SE 3	H335 May cause respiratory irritation.
Flam. Liq. 4	H227 Combustible liquid.
· Label elemen · GHS label ele	ts ements The product is classified and labeled according to the Globally Harmonized System (GHS).

(Contd. on page 2)

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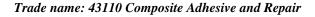
Reviewed on 01/08/2016

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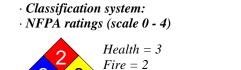
Hazard pictogr	(Contd. of pag
	ums
<u>~</u> ~ ~ (
GHS05 GH	S07 GHS08
Signal word Da	inger
Hazard-determ	ining components of labeling:
phenol	
	oro)oxirane polymer
4-nonylphenol,	
titanium dioxid	
Hazard stateme	
H227 Combust	
H302 Harmful	
	evere skin burns and eye damage.
	e an allergic skin reaction.
	l of causing genetic defects. l of causing cancer.
	d of damaging fertility or the unborn child.
	se respiratory irritation.
	the respiratory fritation. The damage to organs through prolonged or repeated exposure.
Precautionary	
P210	Keep away from flames and hot surfaces. – No smoking.
P260	Do not breathe dusts or mists.
P280	Wear protective gloves / eye protection / face protection.
P264	Wash thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing must not be allowed out of the workplace.
P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P303+P361+P	353 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with wat
P305+P351+P	shower. 338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if press
	and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER/doctor.
P321	Specific treatment (see on this label).
P301+P312	IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P363	Wash contaminated clothing before reuse.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
	331 If swallowed: Rinse mouth. Do NOT induce vomiting.
P314	Get medical advice/attention if you feel unwell.
P370+P378	In case of fire: Use for extinction: CO2, powder or water spray.
P405	Store locked up.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P403+P235	Store in a well-ventilated place. Keep cool.
P501	Dispose of contents/container in accordance with local/regional/national/internation
	regulations.

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 $\frac{3}{6} = 0$ *Reactivity* = 0

· HMIS-ratings (scale 0 - 4)

HEALTH*3Health = *3FIRE2Fire = 2REACTIVITY0Reactivity = 0

· 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:	
25068-38-6	bisphenolA(chloro)oxirane polymer	13 - 30%
	Talc	13 - 30%
65997-17-3	Glass	7 - 10%
108-95-2	phenol	5 - 7%
	Amine proprietary	
68909-14-8	Elastomer modified diglycidal ether	1.5 - 5%
67762-90-7	FUMED SILICA	1.5 - 5%
100-51-6	Benzyl alcohol	1.5 - 5%
84852-15-3	4-nonylphenol, branched	1.5 - 5%
13463-67-7	titanium dioxide	1.5 - 5%
17557-23-2	1,3-bis(2,3-epoxypropoxy)-2,2-dimethylpropane	1.5 - 5%
111-40-0	2,2'-iminodiethylamine	1-1.5%
112-24-3	3,6-diazaoctanethylenediamin	<i>≤1%</i>
25338-55-0) (DIMETHYLAMINO)METHYLPHENOL	<i>≤1%</i>
1760-24-3	N-(3-(trimethoxysilyl)propyl)ethylenediamine	<i>≤1%</i>

*

4 First-aid measures

- · Description of first aid measures
- General information:

Immediately remove any clothing soiled by the product.

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Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

· After inhalation:

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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:

Immediately call a doctor.

Drink copious amounts of water and provide fresh air. Immediately call a 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.

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

- During heating or in case of fire poisonous gases are produced.
- · Advice for firefighters
- · Protective equipment: Mouth respiratory protective device.

6 Accidental release measures

• Personal precautions, protective equipment and emergency procedures

Mount respiratory protective device.

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.

7 Handling and storage

· Handling:

· Precautions for safe handling

No special measures required.

Ensure good ventilation/exhaustion at the workplace.

- Open and handle receptacle with care.
- Prevent formation of aerosols.

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(Contd. of page 4)

- *Information about protection against explosions and fires: Keep ignition sources away - Do not smoke. Keep respiratory protective device available.*
- · Conditions for safe storage, including any incompatibilities
- · Storage:
- Requirements to be met by storerooms and receptacles: No special requirements.
- · 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 other constituents have no known exposure limits.

108-95-2 phenol

- PEL Long-term value: 19 mg/m³, 5 ppm Skin
 REL Long-term value: 19 mg/m³, 5 ppm Ceiling limit value: 60* mg/m³, 15.6* ppm *15-min; Skin
- TLV Long-term value: 19 mg/m³, 5 ppm Skin; BEI

100-51-6 Benzyl alcohol

WEEL Long-term value: 10 ppm

111-40-0 2,2'-iminodiethylamine

- REL Long-term value: 4 mg/m³, 1 ppm Skin
- TLV Long-term value: 4.2 mg/m³, 1 ppm Skin

112-24-3 3,6-diazaoctanethylenediamin

WEEL Long-term value: 6 mg/m³, 1 ppm Skin

· Ingredients with biological limit values:

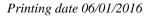
108-95-2 phenol

BEI 250 mg/g creatinine Medium: urine Time: end of shift

Parameter: Phenol with hydrolysis (background, nonspecific)

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

(Contd. on page 6)





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(Contd. of page 5)

· 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 eyes. Avoid contact with the eyes and skin.

· 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 trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

• Eye protection:



Tightly sealed goggles

Information on basic physical and a General Information	chemical properties	
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:	149 °C	

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	(Contd. of page
· Flash point:	82 °C
· Flammability (solid, gaseous):	Not applicable.
· Ignition temperature:	595 °C
· Decomposition temperature:	Not determined.
· Auto igniting:	Product is not selfigniting.
· Danger of explosion:	In use, may form flammable/explosive vapour-air mixture.
· Explosion limits:	
Lower:	Not determined.
Upper:	Not determined.
· Vapor pressure:	Not determined.
· Density at 20 •C:	1.39421 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/wa	ter): Not determined.
· Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
· Solvent content:	
Organic solvents:	0.0 %
Solids content:	99.9 %
• 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.

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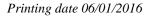
• Acute toxici	-	
· LD/LC50 va	llues that are relevant for classification:	
108-95-2 ph	enol	
Oral LD	50 317 mg/kg (rat)	
Dermal LD	50 850 mg/kg (rabbit)	
· Primary irri	tant effect:	
	Caustic effect on skin and mucous membranes.	
\cdot on the eye:		
Strong caus		
	<i>unt with the danger of severe eye injury.</i>	
	n: Sensitization possible through skin contact. Toxicological information:	
The product	shows the following dangers according to internally approved calculation	on methods for preparatio
	shows the following dangers according to internally approved calculation	on methods for preparatio
The product Harmful Corrosive	shows the following dangers according to internally approved calculation	on methods for preparatio
Harmful	shows the following dangers according to internally approved calculatic	on methods for preparatio
Harmful Corrosive Irritant	shows the following dangers according to internally approved calculation will lead to a strong caustic effect on mouth and throat and to the dangers	
Harmful Corrosive Irritant	will lead to a strong caustic effect on mouth and throat and to the dange	
Harmful Corrosive Irritant Swallowing and stomacl	will lead to a strong caustic effect on mouth and throat and to the dange.	
Harmful Corrosive Irritant Swallowing and stomach • Carcinogen	will lead to a strong caustic effect on mouth and throat and to the dange. h. ic categories	
Harmful Corrosive Irritant Swallowing and stomach • Carcinogen	will lead to a strong caustic effect on mouth and throat and to the dange.	r of perforation of esopha
Harmful Corrosive Irritant Swallowing and stomach • Carcinogen	will lead to a strong caustic effect on mouth and throat and to the dange. ic categories rnational Agency for Research on Cancer) Talc	r of perforation of esopha
Harmful Corrosive Irritant Swallowing and stomacl • Carcinogen • IARC (Inter 108-95-2	will lead to a strong caustic effect on mouth and throat and to the dange. ic categories rnational Agency for Research on Cancer) Talc	r of perforation of esopha
Harmful Corrosive Irritant Swallowing and stomach • Carcinogen • IARC (Inter 108-95-2 13463-67-7	will lead to a strong caustic effect on mouth and throat and to the dange in. ic categories rnational Agency for Research on Cancer) Talc phenol	r of perforation of esopha
Harmful Corrosive Irritant Swallowing and stomach • Carcinogen • IARC (Inter 108-95-2 13463-67-7	will lead to a strong caustic effect on mouth and throat and to the dange i. ic categories rnational Agency for Research on Cancer) Talc phenol titanium dioxide silicon dioxide, chemically prepared	r of perforation of esopho
Harmful Corrosive Irritant Swallowing and stomach • Carcinogen • IARC (Inter 108-95-2 13463-67-7 7631-86-9 64-17-5	will lead to a strong caustic effect on mouth and throat and to the dange i. ic categories rnational Agency for Research on Cancer) Talc phenol titanium dioxide silicon dioxide, chemically prepared	

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.

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Trade name: 43110 Composite Adhesive and Repair

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· 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:

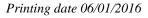
*

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.

· UN-Number · DOT, ADR, IMDG, IATA	UN1760
· UN proper shipping name	
DOT	Corrosive liquids, n.o.s. (3-aminopropyltriethoxysilan Diethylenetriamine)
ADR	1760 Corrosive liquids, n.o.s. (3-aminopropyltriethoxysilan Diethylenetriamine), ENVIRONMENTALLY HAZARDOUS
·IMDG	CORROSIVE LIQUID, N.O.S. (3-aminopropyltriethoxysilan DIETHYLENETRIAMINE, 4-nonylphenol, branched)
· IATA	CORROSIVE LIQUID, N.O.S. (3-aminopropyltriethoxysilan DIETHYLENETRIAMINE)
• Transport hazard class(es)	
and the second s	
CORROSIVE	
CONTROLIVE 3 • Class	8 Corrosive substances
• Class • Label	8
· Label	8



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	(Contd. of page
IATA	
· Class · Label	8 Corrosive substances 8
· Packing group · DOT, ADR, IMDG, IATA	III
Environmental hazards:	Product contains environmentally hazardous substances: 4 nonylphenol, branched
Marine pollutant:	Yes Symbol (fish and tree)
Special marking (ADR):	Symbol (fish and tree)
Special precautions for user EMS Number: Segregation groups Stowage Category	Warning: Corrosive substances F-A,S-B Alkalis A
Stowage Code Transport in bulk according to Annex MARPOL73/78 and the IBC Code	SW2 Clear of living quarters. II of Not applicable.
· Transport/Additional information:	
DOT Quantity limitations	On passenger aircraft/rail: 5 L On cargo aircraft only: 60 L
ADR Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
IMDG Limited quantities (LQ) Excepted quantities (EQ)	5L Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
UN "Model Regulation":	UN 1760 CORROSIVE LIQUIDS, N.O.S. (3 AMINOPROPYLTRIETHOXYSILANE, DIETHYLENETRIAMINE 8, III, ENVIRONMENTALLY HAZARDOUS

*

15 Regulatory information

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

• Section 355 (extremely hazardous substances):

108-95-2 phenol

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107-15-3 e	thylenediamine	(Contd. of page
	3 (Specific toxic chemical listings):	
Section 51.	Talc	
108-95-2		
	Elastomer modified diglycidal ether	
	4-nonylphenol, branched	
	(DIMETHYLAMINO)METHYLPHENOL	
	ethanediol	
	methanol	
	ic Substances Control Act):	
	bisphenolA(chloro)oxirane polymer	
23008-38-0	Talc	
65997-17-3		
108-95-2		
	FATTY ACID POLYMERS	
	<i>Elastomer modified diglycidal ether</i>	
	FUMED SILICA	
	Benzyl alcohol	
	4-nonylphenol, branched	
	titanium dioxide	
	1,3-bis(2,3-epoxypropoxy)-2,2-dimethylpropane	
	2,2'-iminodiethylamine	
	3,6-diazaoctanethylenediamin	
	(DIMETHYLAMINO)METHYLPHENOL	
	[3-(2,3-epoxypropoxy)propy]]trimethoxysilane	
· Proposition		
-	known to cause cancer:	
	bisphenolA(chloro)oxirane polymer	
	titanium dioxide	
107-21-1	ethanediol	
	known to cause reproductive toxicity for females:	
	ingredients is listed.	
•	known to cause reproductive toxicity for males:	
	ingredients is listed.	
	known to cause developmental toxicity:	
107-21-1 e	x x	
67-56-1 1		
64-17-5 e		
	nity categories	
-	ronmental Protection Agency)	
108-95-2		<i>D</i> ,
-	thylenediamine	D



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		(Contd. of page 11)	
• TLV (Thres	• TLV (Threshold Limit Value established by ACGIH)		
	Talc	A4	
108-95-2	phenol	A4	
13463-67-7	titanium dioxide	A4	
107-21-1	ethanediol	A4	
107-15-3	ethylenediamine	A4	
64-17-5	ethanol	A3	
· NIOSH-Ca	· NIOSH-Ca (National Institute for Occupational Safety and Health)		
13463-67-7	titanium dioxide		

67-56-1 methanol

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

GHS05 GHS07 GHS08

· Signal word Danger

· Signai wora Da	inger	
	ining components of labeling:	
phenol		
· ·	pro)oxirane polymer	
4-nonylphenol,		
titanium dioxide		
• Hazard stateme		
H227 Combusti	1	
H302 Harmful i		
	evere skin burns and eye damage.	
	e an allergic skin reaction.	
	l of causing genetic defects.	
	l of causing cancer.	
	l of damaging fertility or the unborn child.	
	e respiratory irritation.	
H373 May caus	e damage to organs through prolonged or repeated exposure.	
• Precautionary s		
P210	Keep away from flames and hot surfaces. – No smoking.	
P260	Do not breathe dusts or mists.	
P280	Wear protective gloves / eye protection / face protection.	
P264	Wash thoroughly after handling.	
P270	Do not eat, drink or smoke when using this product.	
P271	Use only outdoors or in a well-ventilated area.	
P272	Contaminated work clothing must not be allowed out of the workplace.	
P201	P201 Obtain special instructions before use.	
P202	Do not handle until all safety precautions have been read and understood.	
<i>P303</i> + <i>P361</i> + <i>P</i> .	353 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.	
P305+P351+P	338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.	
P310	Immediately call a POISON CENTER/doctor.	
	(Contd. on page 13)	



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Trade name: 43110 Composite Adhesive and Repair

	(Conta. of page 12)
P321	Specific treatment (see on this label).
P301+P312	IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P363	Wash contaminated clothing before reuse.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P301+P330+P331	If swallowed: Rinse mouth. Do NOT induce vomiting.
P314	Get medical advice/attention if you feel unwell.
P370+P378	In case of fire: Use for extinction: CO2, powder or water spray.
P405	Store locked up.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P403+P235	Store in a well-ventilated place. Keep cool.
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.

- · Contact: Steve Gaver (sgaver@semproducts.com)
- Date of preparation / last revision 06/01/2016 / 7
- · 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) 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. 4: Flammable liquids – Category 4 Acute Tox. 4: Acute toxicity - Category 4 Skin Corr. 1B: Skin corrosion/irritation - Category 1B Eye Dam. 1: Serious eye damage/eye irritation - Category 1 Skin Sens. 1: Skin sensitisation - Category 1 Muta. 2: Germ cell mutagenicity - Category 2 Carc. 2: Carcinogenicity - Category 2 Repr. 2: Reproductive toxicity – 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