

Safety Data Sheet

RESFOAM HL 35

Safety Data Sheet dated: 06/16/2021 - version 6

Date of first edition: 10/09/2015



1. IDENTIFICATION

Product identifier

Mixture identification:

Trade name: RESFOAM HL 35

Trade code: 9024456

Recommended use of the chemical and restrictions on use

Recommended use: Polyurethanic coating

Restrictions on use: Not available

Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party

Company: MAPEI CORP. (USA and Puerto Rico)

1144 East Newport Center Drive - 33442 - Deerfield Beach - FL - USA

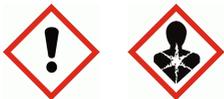
Responsible: RDProductSafety@mapei.com

Emergency 24 hour numbers:

Emergency Number (USA/Canada) CHEMTREC 1(800) 424-9300 / 1(703) 527-3887

Emergency Transport CANUTEC (Canada) 1-613-996-6666

2. HAZARD(S) IDENTIFICATION



Classification of the chemical

Acute Tox. 4	Harmful if inhaled.
Skin Irrit. 2	Causes skin irritation.
Eye Irrit. 2A	Causes serious eye irritation.
Resp. Sens. 1	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Skin Sens. 1	May cause an allergic skin reaction.
Carc. 2	Suspected of causing cancer if inhaled, in contact with skin and if swallowed.
STOT RE 2	May cause damage to organs through prolonged or repeated exposure if inhaled.

Label elements

Hazard pictograms and Signal Word



Danger

Hazard statements

H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H351	Suspected of causing cancer if inhaled, in contact with skin and if swallowed.
H373	May cause damage to organs through prolonged or repeated exposure if inhaled.

Precautionary statements

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P260	Do not breathe vapours.
P264	Wash hands thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P284	[In case of inadequate ventilation] wear respiratory protection.

P302+P352	IF ON SKIN: Wash with plenty of water.
P304+P341	IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position 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.
P312	Call a POISON CENTER if you feel unwell.
P314	Get medical advice/attention if you feel unwell.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P337+P313	If eye irritation persists: Get medical advice/attention.
P342+P311	If experiencing respiratory symptoms: Call a POISON CENTER.
P363	Wash contaminated clothing before reuse.
P405	Store locked up.
P501	Dispose of contents/container in accordance with applicable regulations.

Ingredient(s) with unknown acute toxicity:

None

Hazards not otherwise classified identified during the classification process:

None

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substances

Not available

Mixtures

Hazardous components within the meaning of 29 CFR 1910.1200 and related classification:

List of components

Concentration (%) w/w	Name	Ident. Numb.	Classification	Registration Number
2.5-5 %	polymethylene polyphenylene isocyanate; Isocyanic acid, polymethylenepolyphenylene ester	CAS:9016-87-9	Acute Tox. 4, H332; STOT SE 3, H335; Skin Irrit. 2, H315; STOT RE 2, H373; Eye Irrit. 2A, H319; Resp. Sens. 1, H334; Skin Sens. 1, H317	
1-2.5 %		CAS:101-68-8	Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2A, H319; STOT SE 3, H335; STOT RE 2, H373; Carc. 2, H351; Resp. Sens. 1, H334; Skin Sens. 1, H317	
1-2.5 %	toluene diisocyanate; 1,3-Diisocyanatomethylbenzene	CAS:26471-62-5	Acute Tox. 2, H330; Skin Irrit. 2, H315; Eye Irrit. 2A, H319; Resp. Sens. 1, H334; Skin Sens. 1, H317; Carc. 2, H351; STOT SE 3, H335; Aquatic Chronic 3, H412	

4. FIRST AID MEASURES

Description of first aid measures

In case of skin contact:

- Immediately take off all contaminated clothing.
- OBTAIN IMMEDIATE MEDICAL ATTENTION.
- Obtain medical attention if skin related symptoms persist.
- Remove contaminated clothing immediately and dispose of safely.
- After contact with skin, wash immediately with soap and plenty of water.

In case of eyes contact:

- After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.
- Protect uninjured eye.

In case of Ingestion:

- Do not induce vomiting, get medical attention showing the SDS and the hazard label.

In case of Inhalation:

- If breathing is irregular or stopped, administer artificial respiration.

In case of inhalation, consult a doctor immediately and show him packing or label.

Most important symptoms/effects, acute and delayed

Eye irritation
Eye damages
Skin Irritation
Erythema

Indication of any immediate medical attention and special treatment needed

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

Treatment:

(see paragraph 4.1)

5. FIRE-FIGHTING MEASURES

Extinguishing media

Suitable extinguishing media:

Water.
Carbon dioxide (CO₂).

Unsuitable extinguishing media:

None in particular.

Specific hazards arising from the chemical

Do not inhale explosion and combustion gases.
Burning produces heavy smoke.
Hazardous combustion products: Not available
Explosive properties: Not available
Oxidizing properties: Not available

Special protective equipment and precautions for fire-fighters

Use suitable breathing apparatus.
Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
Move undamaged containers from immediate hazard area if it can be done safely.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Wear personal protection equipment.
Wear breathing apparatus if exposed to vapours/dusts/aerosols.
Provide adequate ventilation.
Use appropriate respiratory protection.
Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.
Limit leakages with earth or sand.

Methods and material for containment and cleaning up

Suitable material for taking up: absorbing material, organic, sand
Retain contaminated washing water and dispose it.

7. HANDLING AND STORAGE

Precautions for safe handling

Avoid contact with skin and eyes, inhalation of vapours and mists.
Exercise the greatest care when handling or opening the container.
Do not use on extensive surface areas in premises where there are occupants.
Use localized ventilation system.
Don't use empty container before they have been cleaned.
Before making transfer operations, assure that there aren't any incompatible material residuals in the containers.
Contaminated clothing should be changed before entering eating areas.
Do not eat or drink while working.
See also section 8 for recommended protective equipment.

Conditions for safe storage, including any incompatibilities

Storage temperature: Not available

Keep away from food, drink and feed.

Incompatible materials:

None in particular.

Instructions as regards storage premises:

Adequately ventilated premises.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

List of components with OEL value

Component	OEL Type	Country	Ceiling	Long Term mg/m3	Long Term ppm	Short Term mg/m3	Short Term ppm	Behaviour	Note
polymethylene polyphenylene isocyanate; Isocyanic acid, polymethylenepolyphenylene ester	MAK	GERMANY		0,05					
	ACGIH				0,005				respiratory sensitization (listed under Methylene bisphenyl isocyanate (MDI));
	OSHA MAK	GERMANY	C	0,05		0,2	0,02		
	ACGIH				0,005				respiratory sensitization (listed under Methylene bisphenyl isocyanate (MDI))
toluene diisocyanate; 1,3-Diisocyanatomethylbenzene	MAK	AUSTRIA		0,05	0,005	0,1	0,01		
	ACGIH				0,001		0,005		A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans;Skin - potential significant contribution to overall exposure by the cutaneous route;dermal sensitizer; respiratory sensitizer;asthma; eye irritation; pulmonary function;
	ACGIH				0,001		0,005		A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans;Skin - potential significant contribution to overall exposure by the cutaneous route;asthma; eye irritation; pulmonary function;dermal sensitizer; respiratory sensitizer
	MAK	AUSTRIA		0,035	0,005	0,14	0,02		

Biological Exposure Index

Component	CAS-No.	Value	UoM	Medium	Biological Indicator	Sampling Period
toluene diisocyanate; 1,3-Diisocyanatomethylbenzene	26471-62-5	5	MICROGGCREAT	Urine	Toluenediamine isomers with hydrolysis	End of turn

Appropriate engineering controls: Not available

Individual protection measures

Eye protection:

Use close fitting safety goggles, don't use eye lens.

Protection for skin:

Use clothing that provides comprehensive protection to the skin, e.g. cotton, rubber, PVC or viton.

Protection for hands:

Suitable materials for safety gloves; 29 CFR 1910.138 - ANSI/ISEA 105:

Polychloroprene - CR: thickness $\geq 0,5\text{mm}$; breakthrough time $\geq 480\text{min}$.

Nitrile rubber - NBR: thickness $\geq 0,35\text{mm}$; breakthrough time $\geq 480\text{min}$.

Butyl rubber - IIR: thickness $\geq 0,5\text{mm}$; breakthrough time $\geq 480\text{min}$.

Fluorinated rubber - FKM: thickness $\geq 0,4\text{mm}$; breakthrough time $\geq 480\text{min}$.

Use impervious gloves that provides comprehensive protection, e.g. P.V.C., neoprene or rubber.

Respiratory protection:

Respiratory protection must be used where exposure levels exceed workplace exposure limits. Refer to 29 CFR 1910.134 - CSA Z94.4 for information on selection and use of appropriate respiratory protection equipment.

Use adequate protective respiratory equipment.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state: Liquid

Appearance and colour: Liquid Amber

Odour: Characteristic

Odour threshold: No data available

pH: No data available

Melting point / freezing point: No data available

Initial boiling point and boiling range: No data available

Flash point: 100 °C (212 °F)

Evaporation rate: No data available

Upper/lower flammability or explosive limits: No data available

Vapour density: No data available

Vapour pressure: No data available

Relative density: 1.10 g/cm³

Solubility in water: reacts

Solubility in oil: No data available

Partition coefficient (n-octanol/water): No data available

Auto-ignition temperature: No data available

Decomposition temperature: No data available

Viscosity: 0.88 PA-s

Explosive properties: No data available

Oxidizing properties: No data available

Solid/gas flammability: No data available

Other information

Substance Groups relevant properties No data available

Miscibility: No data available

Fat Solubility: No data available

Conductivity: No data available

10. STABILITY AND REACTIVITY

Reactivity

Stable under normal conditions

Chemical stability

Data not available.

Possibility of hazardous reactions

None.

Conditions to avoid

Stable under normal conditions.

Incompatible materials

None in particular.

Hazardous decomposition products

None.

11. TOXICOLOGICAL INFORMATION

Information on toxicological effects

Toxicological information of the product:

There is no toxicological data available on the mixture. Consider the individual concentration of each component to assess toxicological effects resulting from exposure to the mixture.

Toxicological information of the main substances found in the product:

polymethylene	a) acute toxicity	LC50 Inhalation Rat = 490 mg/m ³ 4h
polyphenylene		
isocyanate; Isocyanic		
acid,		
polymethylenepolyphenyl		
ene ester		

LD50 Skin Rabbit > 9,4 g/kg

LD50 Oral Rat = 49 g/kg

a) acute toxicity

LC50 Inhalation Rat = 369 mg/m³ 4h

LD50 Oral Rat = 31600 mg/kg

toluene diisocyanate; 1,3-
Diisocyanatomethylbenzene

LD50 Skin Rabbit = 10000 mg/kg

LD50 Oral Rat = 3060 mg/kg

LC50 Inhalation Rat = 0,099 mg/l 4h

If not differently specified, the information required in the regulation and listed below must be considered as N.A.

- a) acute toxicity
- b) skin corrosion/irritation
- c) serious eye damage/irritation
- d) respiratory or skin sensitisation
- e) germ cell mutagenicity
- f) carcinogenicity
- g) reproductive toxicity
- h) STOT-single exposure
- Toxicological kinetics, metabolism and distribution information
- i) STOT-repeated exposure
- j) aspiration hazard

Substance(s) listed on the IARC Monographs:

polymethylene polyphenylene isocyanate; Isocyanic acid, polymethylenepolyphenylene ester

Group 3

Group 3

toluene diisocyanate; 1,3-
Diisocyanatomethylbenzene

Group 2B

Substance(s) listed as OSHA Carcinogen(s):

toluene diisocyanate; 1,3-Diisocyanatomethylbenzene

Substance(s) listed as NIOSH Carcinogen(s):

None

Substance(s) listed on the NTP report on Carcinogens:

toluene diisocyanate; 1,3-Diisocyanatomethylbenzene

12. ECOLOGICAL INFORMATION

Toxicity

Adopt good working practices, so that the product is not released into the environment.

Eco-Toxicological Information:

List of components with eco-toxicological properties

Component	Ident. Numb.	Ecotox Infos
toluene diisocyanate; 1,3-Diisocyanatomethylbenzene	CAS: 26471-62-5	d) Terrestrial toxicity : LC50 Worm Eisenia foetida > 1000 mg/kg 14d IUCLID d) Terrestrial toxicity : NOEC Worm Eisenia foetida >= 1000 mg/kg 14d IUCLID

Persistence and degradability

Not available

Bioaccumulative potential

Not available

Mobility in soil

Not available

Other adverse effects

Not available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

The generation of waste should be avoided or minimized wherever possible. Recover if possible.

Methods of disposal:

Disposal of this product, solutions, packaging and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.

Dispose of surplus and nonrecyclable products via a licensed waste disposal contractor.

Do not dispose of waste into sewers.

Disposal considerations:

Do not allow to enter drains or watercourses.

Dispose of product according to all federal, state and local applicable regulations.

If this product is mixed with other wastes, the original waste product code may no longer apply and the appropriate code should be assigned.

Dispose of containers contaminated by the product in accordance with local or national legal provisions. For further information, contact your local waste authority.

Special precautions:

This material and its container must be disposed of in a safe way. Care should be taken when handling untreated empty containers.

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Empty containers or liners may retain some product residues. Do not re-use empty containers.

14. TRANSPORT INFORMATION

Not classified as dangerous in the meaning of transport regulations.

UN number

ADR-UN number: Not available

DOT-UN Number: Not available

IATA-Un number: Not available

IMDG-Un number: Not available

UN proper shipping name

ADR-Shipping Name: Not available

DOT-Proper Shipping Name: Not available

IATA-Technical name: Not available

IMDG-Technical name: Not available

Transport hazard class(es)

ADR-Class: Not available

DOT-Hazard Class: Not available

IATA-Class: Not available

IMDG-Class: Not available

Packing group

ADR-Packing Group: Not available

DOT-Packing group: Not available

IATA-Packing group: Not available

IMDG-Packing group: Not available

Environmental hazards

Marine pollutant: No

Environmental Pollutant: Not available

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not available

Special precautions

Department of Transportation (DOT):

Not available

Road and Rail (ADR-RID) :

Not available

Air (IATA) :

Not available

Sea (IMDG) :

15. REGULATORY INFORMATION

USA - Federal regulations

TSCA - Toxic Substances Control Act

TSCA inventory:

All the components are listed on the TSCA inventory

TSCA listed substances:

polymethylene polyphenylene isocyanate; Isocyanic acid, polymethylenepolyphenylene ester is listed in TSCA Section 8b

is listed in TSCA Section 8b Section 8a - PAIR

toluene diisocyanate; 1,3-Diisocyanatomethylbenzene is listed in TSCA Section 8b Section 5a - SNUR Section 5 Section 12b

SARA - Superfund Amendments and Reauthorization Act

Section 302 - Extremely Hazardous Substances:

No substances listed

Section 304 - Hazardous substances:

toluene diisocyanate; 1,3-Diisocyanatomethylbenzene

Section 313 - Toxic chemical list:

polymethylene polyphenylene isocyanate; Isocyanic acid, polymethylenepolyphenylene ester

toluene diisocyanate; 1,3-Diisocyanatomethylbenzene

CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act

Substance(s) listed under CERCLA:

toluene diisocyanate; 1,3-Diisocyanatomethylbenzene	Reportable quantity:	5000	pounds
	Reportable quantity:	100	pounds

CAA - Clean Air Act

CAA listed substances:

toluene diisocyanate; 1,3-Diisocyanatomethylbenzene is listed in CAA Section 112(b) - HAP Section 112(b) - HON

is listed in CAA Section 112(b) - HON

CWA - Clean Water Act

CWA listed substances:

No substances listed

USA - State specific regulations

California Proposition 65

Substance(s) listed under California Proposition 65:

toluene diisocyanate; 1,3-Diisocyanatomethylbenzene Listed as carcinogen

Massachusetts Right to know

Substance(s) listed under Massachusetts Right to know:

toluene diisocyanate; 1,3-Diisocyanatomethylbenzene

Pennsylvania Right to know

Substance(s) listed under Pennsylvania Right to know:

toluene diisocyanate; 1,3-Diisocyanatomethylbenzene

New Jersey Right to know

Substance(s) listed under New Jersey Right to know:

polymethylene polyphenylene isocyanate; Isocyanic acid, polymethylenepolyphenylene ester

toluene diisocyanate; 1,3-Diisocyanatomethylbenzene

Canada - Federal regulations

DSL - Domestic Substances List

DSL (Domestic Substances List)

All the substances are listed in the DSL.

NDSL - Non Domestic Substances List

NDSL (Non Domestic Substances List)

No substances listed

NPRI - National Pollutant Release Inventory

NPRI (National Pollutant Release Inventory) - List of substances listed.

No substances listed

16. OTHER INFORMATION

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Additional classification information

NFPA Health: 1 = Slight

NFPA Flammability: 1 = Combustible if heated

NFPA Reactivity: 1 = Slight

NFPA Special Risk: Not available



NFPA

Reasonable care has been taken in the preparation of this information, but the manufacturer makes no warranty of merchantability or any other warranty, expressed or implied, with respect to this information. The manufacturer makes no representations and assumes no liability for any direct, incidental or consequential damages resulting from its use. The information herein is presented in good faith and believed to be accurate as of the effective date given. It is the buyer's responsibility to ensure that its activities comply with Federal, State or provincial, and local laws.

This document was prepared by a competent person who has received appropriate training.

It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific use intended.

This SDS cancels and replaces any preceding release.

Code	Description
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H330	Fatal if inhaled.
H332	Harmful if inhaled.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	May cause respiratory irritation.
H351	Suspected of causing cancer.
H351	Suspected of causing cancer if inhaled, in contact with skin and if swallowed.
H373	May cause damage to organs through prolonged or repeated exposure.
H373	May cause damage to organs through prolonged or repeated exposure if inhaled.
H412	Harmful to aquatic life with long lasting effects.

Legend to abbreviations and acronyms used in the safety data sheet:

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.

RID: Regulation Concerning the International Transport of Dangerous Goods by Rail.

IMDG: International Maritime Code for Dangerous Goods.

IATA: International Air Transport Association.

IATA-DGR: Dangerous Goods Regulation by the "International Air Transport Association" (IATA).

ICAO: International Civil Aviation Organization.

ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO).

GHS: Globally Harmonized System of Classification and Labeling of Chemicals.

CLP: Classification, Labeling, Packaging.

EINECS: European Inventory of Existing Commercial Chemical Substances.

INCI: International Nomenclature of Cosmetic Ingredients.

CAS: Chemical Abstracts Service (division of the American Chemical Society).

GefStoffVO: Ordinance on Hazardous Substances, Germany.

LC50: Lethal concentration, for 50 percent of test population.

LD50: Lethal dose, for 50 percent of test population.

DNEL: Derived No Effect Level.

PNEC: Predicted No Effect Concentration.

TLV: Threshold Limiting Value.

TWATLV: Threshold Limit Value for the Time Weighted Average 8 hour day. (ACGIH Standard).

STEL: Short Term Exposure limit.
STOT: Specific Target Organ Toxicity.
WGK: German Water Hazard Class.
KSt: Explosion coefficient.

Paragraphs modified from the previous revision:

- 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING
- 6. ACCIDENTAL RELEASE MEASURES
- 7. HANDLING AND STORAGE
- 8. EXPOSURE CONTROLS/PERSONAL PROTECTION
- 9. PHYSICAL AND CHEMICAL PROPERTIES
- 14. TRANSPORT INFORMATION
- 16. OTHER INFORMATION