

Safety Data Sheet according to OSHA HCS

1. IDENTIFICATION OF THE SUBSTANCE OR MIXTURE AND OF THE SUPPLIER

1.1 Product Identifier

Trade Name Abesco FP200 FR Expanding Foam

Description One component Fire Retardant Polyurethane Foam Hand Held Aerosol Dispensed

1.2 Relevant identified uses of the substance or mixture and uses advised against

No further relevant information available

1.3 Details of the supplier of the safety data sheet

Supplier Abesco Fire LLC

P.O. Box 555647

Orlando, FL 32855 USA

Phone Number 1-407-851-3300 **Fax Number** 1-407-851-3388

E-mail ustechnical@abesco.net

1.4 Emergency Telephone number: In case of emergency, consult physician.

2. HAZARD IDENTIFICATION

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

Flam. Aerosol 1	H222-H229	Extremely flammable aerosol. Pressurized container. May burst if heated.
Acute Tox. 4	H332	Harmful if inhaled.
Skin Irrit. 2	H315	Causes skin irritation.
Eye Irrit.2	H319	Causes serious eye irritation.
Resp. Sens. 1	H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Skin Sens. 1	H317	May cause an allergic skin reaction.
Carc. 2	H351	Suspected of causing cancer.
STOT SE 3	H335	May cause respiratory irritation.
STOT RE 2	H373	May cause damage to organs through prolonged or repeated exposure.

2.2 Label elements

Labeling according to Regulation (EC) No 1272/2008

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



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Hazard pictograms



Signal word Danger

Hazard-determining components of labeling:

diphenylmethanediisocyanate, isomeres and homologues

Hazard Statements

H222-H229	Extremely flammable aerosol. Pressurized container: May burst if heated.
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H351	Suspected of causing cancer.
H335	May cause respiratory irritation.
H373	May cause damage to organs through prolonged or repeated exposure.

Precautionary Statements

Precautionary	Statements
P102	Keep out of the reach of children.
P201	Obtain special instructions before use.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P211	Do not spray on an open flame or other ignition source.
P251	Do no pierce or burn, even after use.
P284	In case of inadequate ventilation wear respiratory protection (a protective mask with an appropriate gas filter – i.e. type A1 according to standard EN 14387).
P280	Wear protective gloves/protective clothing/eye protection.

P260 Do not breathe vapors/spray.

P302+P352 IF ON SKIN: Wash with plenty of water/soap

P305+351+P338IF 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.

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50° C / 122 ° F.
Dispose of container in accordance with local/regional/national/international regulations.

Additional information:

Contains isocyanates. May produce an allergic reaction.

Persons already sensitized to diisocyanates may develop allergic reactions when using this product. Persons suffering from asthma, eczema or skin problems should avoid contact, including dermal contact, with this product. This product should not be used under conditions of poor ventilation unless a protective mask with an appropriate gas filter (i.e. type A1 according to standard EN 14387) is used.

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2.3 Other hazards Results of PBT and vPvB assessment

PBT: Not applicable vPvB: Not applicable

Classification system:

· NFPA ratings (scale 0 - 4)

Health = 1 Fire = 0 Reactivity = 3



· HMIS-ratings (scale 0 - 4)

Health = 1 Fire = 0 Reactivity = 3

3. COMPOSITION / INFORMATION ON THE COMPONENTS

3.2 Chemical characterization: Mixtures

Description: Mixture of substances listed below with non-hazardous additions.

Dangerous components:	CAS	Range (%)
Diphenylmethanediisocyanate, Isomeres and Homologues	9016-87-9	40-50%
Resp. Sens. 1, H334; Carc. 2, H351; STOT RE 2, H373;		
Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319, Skin Sens. 1, H317; STOT SE 3, H335		
Tris(2-chlorisopropyl)-phosphate	13674-84-5	5-15%
Acute Tox. 4, H302		
Dimethyl Ether Flam. Gas 1, H220; Press. Gas C, H280	115-10-6 EINECS: 204-065-8	1-12%
Isobutane	75-28-5	1-10%
Halogenated Polyetherpolyol	86675-46-9	1-5%
Propane	74-98-6	1-5%

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



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4. FIRST AID MEASURES

4.1 General information:

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

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. If symptoms persist, consult

a doctor.

After swallowing: Immediately call a doctor.

4.2 Most important symptoms and effects, both acute and delayed

No further relevant information available.

4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

5. FIRE FIGHTING MEASURES

5.1 Extinguishing Media

Foam. Do not use water.

For safety reasons unsuitable extinguishing agents: Water with full jet

5.2 Special hazards arising from the substance or mixture

Carbon monoxide (CO) Nitrogen oxides (NOx) Hydrogen cyanide (HCN)

5.3 Advice for firefighters

Protective equipment: Mouth respiratory protective device.

Additional information Cool endangered receptacles with water spray.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation

Keep away from ignition sources

Wear protective equipment. Keep unprotected persons away.

6.2 Environmental precautions:

Do not allow product to reach sewage system or any water course.

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

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

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6.3 Methods and material for containment and cleaning up:

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

Do not flush with water or aqueous cleansing agents

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

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.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Ensure good ventilation/exhaustion at the workplace.

Open and handle receptacle with care.

Information about protection against explosions and fires:

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

7.2 Conditions for safe storage, including any incompatibilities Storage:

Requirements to be met by storerooms and receptacles:

Store in a cool location.

Store only in the original receptable.

Observe official regulations on storing packaging with pressurized containers.

Information about storage in one common storage facility:

Store away from oxidizing agents.

Further information about storage conditions:

Store in dry conditions.

Store in a cool, dry place. Heat will increase pressure and may lead to the receptacle bursting.

Keep receptacle tightly sealed.

Do not gas tight seal receptacle.

Protect from heat and direct sunlight.

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

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Additional information about design of technical facilities: No further data; see item 7.



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8.1 Control Parameters

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.

· Ingredients with limit values that require monitoring at the workplace:			
9016-87-9 diphenylmethanediisocyanate, isomers and homologues			
WEEL	Short-Term value: 0.07 mg/m³ Long-Term value 0.02 mg/m³		
115-10-6 dimeth	115-10-6 dimethyl ether		
WEEL	Long-Term value: 1910 mg/m³, 1000 ppm		

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.

Avoid contact with the eyes and skin.

Respiratory Protection:

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

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

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 **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:



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Tightly sealed goggles

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties General information

Appearance:

Form: Aerosol

Color: According to product specification (pink on cure 2023 & before / foam violet on cure 2024+)

Odor: Characteristic

Odor threshold: Not determined pH-value: Not determined

Change in condition

Melting point/Melting range: Undetermined.

Boiling point/Boiling range: Not applicable, as aerosol.

Flash point: Not Applicable, as aerosol.

Flammability (solid, gaseous): Not applicable.

Ignition temperature: 199°C (390° F)

Decomposition temperature: Not determined.

Auto igniting: Product is not self-igniting.

Danger of explosion: Heating may cause an explosion.

Explosion limits: Upper/Lower not determined.

Density: Not determined.

Relative Density / Vapor Density: Not determined.

Evaporation Rate: Not Applicable.

Solubility in / Miscibility with Water: Insoluble, not miscible.

Vapor Pressure: Not determined.

Solvent content: VOC: 18.1 %

9.2 Other information: No further relevant information available.

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.

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10.5 Incompatible materials: No further relevant information available. **10.6 Hazardous decomposition products:**

Carbon monoxide
Nitrogen oxides (NOx)
Hydrogen cyanide (prussic acid)

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

· LD/LC50 values that are relevant for classification:			
CAS: 115-10-	CAS: 115-10-6 dimethyl ether		
Inhalative	LC50/4 h	308 mg/l (rat)	
CAS: 86675-4	CAS: 86675-46-9 Halogenated polyetherpolyol		
Oral	LD50	917 mg/kg (rat)	
CAS: 13674-84-5 tris (2-chlorisopropyl)-phosphate			
Oral	LD 50	3,600 mg/kg (rat)	

Primary irritant effect:

Skin corrosion/irritation: Irritant to skin and mucous membranes.

Serious eye damage/irritation: Irritating effect.

Respiratory or skin sensitization:
Sensitization possible through inhalation.
Sensitization possible through skin contact.

Additional toxicological information:

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

Harmful Irritant

CMR effects (carcinogenetic, mutagenicity and toxicity for reproduction)

Carc 2

- IARC (International Agency for Research on Cancer)			
CAS 9016-87-9 diphenylmethanediisocyanate, isomers and homologues		3	
- NTP (National Toxicity Program)			
None of the ingredients is listed.			
- OSHA-Ca (Occupational Safety & Health Administration)			
None of the ingredients is listed.			

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12. ECOLOGICAL INFORMATION

12.1 Toxicity

Aquatic toxicity: No further relevant information available.

12.2 Persistence and degradability No further relevant information available.

12.3 Bio accumulative potential No further relevant information available

12.4 Mobility in soil No further relevant information available

Additional ecological information:

General notes:

Water hazard class 1 (Self-assessment): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

12.5 Results of PBT and vPvB assessment

PBT: Not applicable **vPvB:** Not applicable

12.6 Other adverse affects No further relevant information available

13. <u>Disposal considerations</u>

13.1 Waste Treatment Methods

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

European was	European waste catalogue		
08 05 01*	Waste isocyanates		
16 05 04*	Gases in pressure containers (including halons) containing dangerous substances		

Uncleaned packaging:

Recommendation: Disposal must be made according to official regulations.



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14. TRANSPORT INFORMATION

14.1 UN-Number				
DOT	UN1950			
ADR, IMDG, IATA	1950			
14.2 UN proper shipping name)			
DOT, IATA	AEROSOLS, flammable			
ADR	1950 AEROSOLS			
IMDG	AEROSOLS			
14.3 Transport hazard class(e	s)			
DOT, IMDG, IATA				
Class	2.1			
Label	2.1			
ADR				
Class:	2 5F Gases			
Label	2.1			
14.4 Packing group				
ADR, DOT, IMDG, IATA	2.03			
14.5 Environmental hazards:				
Marine pollutant:	No			
14.6 Special precautions for u	ser Warning: Gases			
EMS Number:	F-D,S-U			
14.7 Transport in bulk according to Annex II of MARPOL73/78 & the IBC Code Not applicable.				
Transport/Additional informat	ion:			
ADR				
Limited Quantities (LQ)	11			
UN "Model Regulation":	UN1950, Aerosols, 2.1			

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15. REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture: No further information available

15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

15.3 Sara

- Section 355 (extremely hazardous substances):				
None of the in	gredier	at is listed.		
- Section	n 313 (Specific toxic chemical listings):		
9016-87-9	dipher	nylmethanediisocyanate, isomers and homologues		
- TSCA (Toxic Substances Control Act):				
CAS: 9016-8	7-9	Diphenylmethanediisocyanate, isomers and homologues		
CAS: 13674-8	34-5	Tris(2-chlorisopropyl)-phosphate		
CAS: 115-10-	6	Dimethyl ether		

15.4 Proposition 65

- Chemicals known to cause cancer:
None of the ingredients is listed.
- 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:
None of the ingredients is listed.

15.5 Carcinogenic categories

- EPA (Envir	onmental Protection Agency)				
9016-87-9	D;CBD				
- TLV (Threshold Limit Value established by ACGIH)					
None of the in	ngredients is listed.				
- NIOS	H-Ca (National Institute for Occupational Safety and Health)				
None of the in	ngredients is listed.				

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

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- **Signal Word** Danger
- Hazard determining components of labelling: diphenylmethanediisocyanate, isomers and homologues

Hazard Statements

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.

H220 Extremely flammable gas

H280 Contains gas under pressure; may explode if heated.

H302 Harmful if swallowed.

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.

H335 May cause respiratory irritation.

H351 Suspected of causing cancer.

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

Precautionary Statements

Obtain special instructions before use.

Keep out of reach of children.

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

Do not spray on an open flame or other ignition source.

Do not pierce or burn, even after use.

In case of inadequate ventilation wear respiratory protection (a protective mask with an appropriate gas filter – i.e. type A1 according to standard EN 14387).

Wear protective gloves / protective clothing / eye protection.

Do not breath vapors / spray.

IF ON SKIN: Wash with plenty of water / soap.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

IF exposed or concerned: Get medical advice / attention.

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

Protect from sunlight. Do not expose to temperatures exceeding 50° C / 122° F.

Dispose of container to in accordance with local / regional / national / international regulation.

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- Chemical Safety Assessment: A Chemical Safety Assessment has not been carried out.

16. OTHER INFORMATION

Abbreviations and acronyms:

Flam. Gas 1: Flammable gases. Hazard category 1 Flam. Aerosol 1: Flammable aerosols. Hazard category 1 Press. Gas C: Gases under pressure. Compressed gas

Acute Tox. 4: Acute toxicity, Hazard Category 4

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

Eye Irrit. 2A: Serious Eye Damage/Eye Irritation – Category 2A Resp. Sens. 1: Sensitization – Respiratory, Hazard Category 1

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

Carc. 2: Carcinogenicity, Hazard Category 2

STOT SE 3: Specific target organ toxicity – Single Exposure, Hazard Category 3

STOT RE 2: Specific target organ toxicity – Repeated Exposure, Hazard Category 2