

B2 FIRE RATED PU FOAM

Safety Data Sheet

according to Regulation (EU) 2015/830

Date of issue: 12/2/2014

Revision date: 12/10/2015

Supersedes: 6/22/2015

Version: 1.0

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

1.1. Product identifier

Product form : Mixture
Trade name : B2 FIRE RATED PU FOAM
Product code : F00840
Type of product : Aerosol
Vaporizer : Aerosol
Product group : Trade product

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

1.2.1. Relevant identified uses

Intended for general public

Main use category : Industrial use, Professional use, Consumer use

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

AKKIM YAPI KİMYASALLARI SANAYİ ve TİCARET A.Ş.

Yeşilbayır mahallesi Şimşir sokak No:22

34555 İSTANBUL - TURKEY

T +90 2127711371 - F + 90 2127713888

info@akkim.net - www.akkim.net

1.4. Emergency telephone number

Emergency number : +90 2127711371 (9:00 am- 17:00 pm GMT+2)

Country	Organisation/Company	Address	Emergency number	Comment
United Kingdom	National Poisons Information Service (Newcastle Centre) Regional Drugs and Therapeutics Centre	Claremont Place Newcastle-upon-Tyne NE1 4LP Newcastle	0844 892 0111 (UK only, Monday to Friday, 08.00 to 18.00 hours)	

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Aerosol, Category 1	H222;H229	On basis of test data
Acute toxicity (inhalation:gas) Category 4	H332	Calculation method
Skin corrosion/irritation, Category 2	H315	Calculation method
Serious eye damage/eye irritation, Category 2	H319	Calculation method
Sensitisation — Respiratory, Category 1	H334	Calculation method
Sensitisation — Skin, Category 1	H317	Calculation method
Carcinogenicity, Category 2	H351	Calculation method
Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation	H335	Calculation method
Specific target organ toxicity — Repeated exposure, Category 2	H373	Calculation method

Full text of hazard classes and H-statements : see section 16

Adverse physicochemical, human health and environmental effects

Pressurised container: May burst if heated. Extremely flammable aerosol. Suspected of causing cancer. May cause damage to organs through prolonged or repeated exposure. Harmful if inhaled. May cause respiratory irritation. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation. May cause allergy or asthma symptoms or breathing difficulties if inhaled.

B2 FIRE RATED PU FOAM

Safety Data Sheet

according to Regulation (EU) 2015/830

Date of issue: 12/2/2014

Revision date: 12/10/2015

Supersedes: 6/22/2015

Version: 1.0

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



Signal word (CLP) :

Danger

Hazardous ingredients :

Isocyanic acid, polymethylenepolyphenylene ester

Hazard statements (CLP) :

H222 - Extremely flammable aerosol
 H229 - Pressurised container: May burst if heated
 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 (CLP) :

P102 - Keep out of reach of children
 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 not pierce or burn, even after use
 P280 - Wear eye protection, face protection, protective clothing, protective gloves
 P284 - [In case of inadequate ventilation] wear respiratory protection
 P302+P352 - IF ON SKIN: Wash with plenty of water
 P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
 P342+P311 - If experiencing respiratory symptoms: Call a doctor, a POISON CENTER
 P410+P412 - Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F
 P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation
 P261 - Avoid breathing gas, spray, vapours

EUH-statements :

EUH204 - Contains isocyanates. May produce an allergic reaction

Security closing plug for children :

Not applicable

Tactile warning :

Applicable

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Isocyanic acid, polymethylenepolyphenylene ester	(CAS No) 9016-87-9 (REACH-no) 01-2119457014-47	30 - 45	Acute Tox. 4 (Inhalation), H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Resp. Sens. 1, H334 Skin Sens. 1, H317 Carc. 2, H351 STOT SE 3, H335 STOT RE 2, H373
2-Propanol, 1-chloro-, phosphate (3:1)	(CAS No) 13674-84-5 (REACH-no) 01-2119447716-31	5 - 20	Acute Tox. 4 (Oral), H302
propane	(CAS No) 74-98-6	2.5 - 10	Flam. Gas 1, H220

B2 FIRE RATED PU FOAM

Safety Data Sheet

according to Regulation (EU) 2015/830

Date of issue: 12/2/2014

Revision date: 12/10/2015

Supersedes: 6/22/2015

Version: 1.0

(Note U)	(EC no) 200-827-9 (EC index no) 601-003-00-5 (REACH-no) 01-2119486944-21		Press. Gas
isobutane (Note C)(Note U)	(CAS No) 75-28-5 (EC no) 200-857-2 (EC index no) 601-004-00-0 (REACH-no) 01-2119485395-27	2.5 - 10	Flam. Gas 1, H220
dimethyl ether (Note U)	(CAS No) 115-10-6 (EC no) 204-065-8 (EC index no) 603-019-00-8 (REACH-no) 01-2119472128-37	2.5 - 10	Flam. Gas 1, H220 Press. Gas

Note C : Some organic substances may be marketed either in a specific isomeric form or as a mixture of several isomers. In this case the supplier must state on the label whether the substance is a specific isomer or a mixture of isomers.

Note U : When put on the market gases have to be classified as 'Gases under pressure', in one of the groups compressed gas, liquefied gas, refrigerated liquefied gas or dissolved gas. The group depends on the physical state in which the gas is packaged and therefore has to be assigned case by case.

Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

- First-aid measures general : IF exposed or concerned: Get medical advice/attention. Call a poison center or a doctor if you feel unwell.
- First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Call a poison center or a doctor if you feel unwell.
- First-aid measures after skin contact : Wash skin with plenty of water. Take off contaminated clothing. If skin irritation or rash occurs: Get medical advice/attention.
- First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
- First-aid measures after ingestion : Call a poison center or a doctor if you feel unwell.

4.2. Most important symptoms and effects, both acute and delayed

- Symptoms/injuries after inhalation : May cause respiratory irritation. May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- Symptoms/injuries after skin contact : Irritation. May cause an allergic skin reaction.
- Symptoms/injuries after eye contact : Eye irritation.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

- Suitable extinguishing media : Water spray. Dry powder. Foam.

5.2. Special hazards arising from the substance or mixture

- Fire hazard : Extremely flammable aerosol.
- Explosion hazard : Pressurised container: May burst if heated.
- Hazardous decomposition products in case of fire : Toxic fumes may be released.

5.3. Advice for firefighters

- Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

- Emergency procedures : Ventilate spillage area. No open flames, no sparks, and no smoking. Do not breathe dust/fume/gas/mist/vapours/spray. Avoid contact with skin and eyes.

6.1.2. For emergency responders

- Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

B2 FIRE RATED PU FOAM

Safety Data Sheet

according to Regulation (EU) 2015/830

Date of issue: 12/2/2014

Revision date: 12/10/2015

Supersedes: 6/22/2015

Version: 1.0

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Recover mechanically the product. Notify authorities if product enters sewers or public waters.
Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : 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. Pressurized container: Do not pierce or burn, even after use. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear personal protective equipment. Do not breathe dust/fume/gas/mist/vapours/spray. Use only outdoors or in a well-ventilated area. Avoid contact with skin and eyes.
Hygiene measures : Wash contaminated clothing before reuse. Contaminated work clothing should not be allowed out of the workplace. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Protect from sunlight. Do not expose to temperatures exceeding 50 °C/ 122 °F. Store locked up. Store in a well-ventilated place. Keep container tightly closed. Keep cool.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

B2 FIRE RATED PU FOAM		
Germany	Local name	pMDI(alsMDIberechnet)
Germany	TRGS 900 Occupational exposure limit value (mg/m ³)	0.05 mg/m ³
Germany	Remark (TRGS 900)	DFG,H,Sah,Y,12

8.2. Exposure controls

Appropriate engineering controls : Ensure good ventilation of the work station.
Hand protection : Protective gloves
Eye protection : Safety glasses
Skin and body protection : Wear suitable protective clothing
Respiratory protection : Wear respiratory protection
Environmental exposure controls : Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Gas
Appearance : Liquid under pressure.
Colour : light red.
Odour : characteristic.
Odour threshold : No data available
pH : No data available
Relative evaporation rate (butyl acetate=1) : No data available
Melting point : No data available
Freezing point : No data available

B2 FIRE RATED PU FOAM

Safety Data Sheet

according to Regulation (EU) 2015/830

Date of issue: 12/2/2014

Revision date: 12/10/2015

Supersedes: 6/22/2015

Version: 1.0

Boiling point	: No data available
Flash point	: 0 °C
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Extremely flammable aerosol
Vapour pressure	: 5 bar
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Density	: 19 - 25 kg/m ³
Solubility	: No data available
Log Pow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: Pressurised container: May burst if heated.
Oxidising properties	: No data available
Explosive limits	: No data available

9.2. Other information

VOC content : < 2 g/l

SECTION 10: Stability and reactivity

10.1. Reactivity

Extremely flammable aerosol. Pressurised container: May burst if heated.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Inhalation:gas: Harmful if inhaled.

ATE CLP (gases)	10000.000 ppmv/4h
-----------------	-------------------

Skin corrosion/irritation : Causes skin irritation.

Serious eye damage/irritation : Causes serious eye irritation.

Respiratory or skin sensitisation : May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction.

Germ cell mutagenicity : Not classified

Carcinogenicity : Suspected of causing cancer.

Reproductive toxicity	: Not classified
-----------------------	------------------

Specific target organ toxicity (single exposure)	: May cause respiratory irritation.
--	-------------------------------------

Specific target organ toxicity (repeated exposure) : May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard : Not classified

B2 FIRE RATED PU FOAM

Safety Data Sheet

according to Regulation (EU) 2015/830

Date of issue: 12/2/2014

Revision date: 12/10/2015

Supersedes: 6/22/2015

Version: 1.0

B2 FIRE RATED PU FOAM

Vaporizer

Aerosol

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number

UN-No. (ADR) : 1950
UN-No. (IMDG) : 1950
UN-No. (IATA) : 1950
UN-No. (ADN) : 1950
UN-No. (RID) : 1950

14.2. UN proper shipping name

Proper Shipping Name (ADR) : AEROSOLS
Proper Shipping Name (IMDG) : AEROSOLS
Proper Shipping Name (IATA) : Aerosols, flammable
Proper Shipping Name (ADN) : AEROSOLS
Proper Shipping Name (RID) : AEROSOLS
Transport document description (ADR) : UN 1950 AEROSOLS, 2.1, (D)
Transport document description (IMDG) : UN 1950 AEROSOLS, 2.1
Transport document description (IATA) : UN 1950 Aerosols, flammable, 2.1
Transport document description (ADN) : UN 1950 AEROSOLS, 2.1
Transport document description (RID) : UN 1950 AEROSOLS, 2.1

14.3. Transport hazard class(es)

ADR

Transport hazard class(es) (ADR) : 2.1
Danger labels (ADR) : 2.1

B2 FIRE RATED PU FOAM

Safety Data Sheet

according to Regulation (EU) 2015/830

Date of issue: 12/2/2014

Revision date: 12/10/2015

Supersedes: 6/22/2015

Version: 1.0

:



IMDG

Transport hazard class(es) (IMDG)

: 2.1

Danger labels (IMDG)

: 2.1

:



IATA

Transport hazard class(es) (IATA)

: 2.1

Hazard labels (IATA)

: 2.1

:



ADN

Transport hazard class(es) (ADN)

: 2.1

Danger labels (ADN)

: 2.1

:



RID

Transport hazard class(es) (RID)

: 2.1

Danger labels (RID)

: 2.1

:



14.4. Packing group

Packing group (ADR) : Not applicable

Packing group (IMDG) : Not applicable

Packing group (IATA) : Not applicable

Packing group (ADN) : Not applicable

Packing group (RID) : Not applicable

14.5. Environmental hazards

Dangerous for the environment : No

Marine pollutant : No

B2 FIRE RATED PU FOAM

Safety Data Sheet

according to Regulation (EU) 2015/830

Date of issue: 12/2/2014

Revision date: 12/10/2015

Supersedes: 6/22/2015

Version: 1.0

Other information : No supplementary information available

14.6. Special precautions for user

- Overland transport

Classification code (ADR) : 5F
Special provisions (ADR) : 190, 327, 344, 625
Limited quantities (ADR) : 1I
Excepted quantities (ADR) : E0
Packing instructions (ADR) : P207, LP02
Special packing provisions (ADR) : PP87, RR6, L2
Mixed packing provisions (ADR) : MP9
Transport category (ADR) : 2
Special provisions for carriage - Packages (ADR) : V14
Special provisions for carriage - Loading, unloading and handling (ADR) : CV9, CV12
Special provisions for carriage - Operation (ADR) : S2
Tunnel restriction code (ADR) : D

- Transport by sea

Special provisions (IMDG) : 63, 190, 277, 327, 344, 959
Limited quantities (IMDG) : SP277
Excepted quantities (IMDG) : E0
Packing instructions (IMDG) : P207, LP02
Special packing provisions (IMDG) : PP87, L2
EmS-No. (Fire) : F-D
EmS-No. (Spillage) : S-U
Stowage category (IMDG) : None
Stowage and handling (IMDG) : SW1, SW22
Segregation (IMDG) : SG69
MFAG-No : 126

- Air transport

PCA Excepted quantities (IATA) : E0
PCA Limited quantities (IATA) : Y203
PCA limited quantity max net quantity (IATA) : 30kgG
PCA packing instructions (IATA) : 203
PCA max net quantity (IATA) : 75kg
CAO packing instructions (IATA) : 203
CAO max net quantity (IATA) : 150kg
Special provisions (IATA) : A145, A167, A802
ERG code (IATA) : 10L

- Inland waterway transport

Classification code (ADN) : 5F
Special provisions (ADN) : 190, 327, 344, 625
Limited quantities (ADN) : 1 L
Excepted quantities (ADN) : E0
Equipment required (ADN) : PP, EX, A
Ventilation (ADN) : VE01, VE04
Number of blue cones/lights (ADN) : 1

B2 FIRE RATED PU FOAM

Safety Data Sheet

according to Regulation (EU) 2015/830

Date of issue: 12/2/2014

Revision date: 12/10/2015

Supersedes: 6/22/2015

Version: 1.0

- Rail transport

Classification code (RID)	: 5F
Special provisions (RID)	: 190, 327, 344, 625
Limited quantities (RID)	: 1L
Excepted quantities (RID)	: E0
Packing instructions (RID)	: P207, LP02
Special packing provisions (RID)	: PP87, RR6, L2
Mixed packing provisions (RID)	: MP9
Transport category (RID)	: 2
Special provisions for carriage – Packages (RID)	: W14
Special provisions for carriage - Loading, unloading and handling (RID)	: CW9, CW12
Colis express (express parcels) (RID)	: CE2
Hazard identification number (RID)	: 23

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

VOC content : < 2 g/l

15.1.2. National regulations

Germany

VwVwS Annex reference : Water hazard class (WGK) 1, low hazard to waters (Classification according to VwVwS, Annex 4)

12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV : Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

Netherlands

SZW-lijst van kankerverwekkende stoffen : None of the components are listed

SZW-lijst van mutagene stoffen : None of the components are listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding : None of the components are listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid : None of the components are listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling : None of the components are listed

Denmark

Class for fire hazard : Class I-1

Store unit : 1 liter

Classification remarks : F <Aerosol 1>; Emergency management guidelines for the storage of flammable liquids must be followed

B2 FIRE RATED PU FOAM

Safety Data Sheet

according to Regulation (EU) 2015/830

Date of issue: 12/2/2014

Revision date: 12/10/2015

Supersedes: 6/22/2015

Version: 1.0

Recommendations Danish Regulation : Young people below the age of 18 years are not allowed to use the product
 Pregnant/breastfeeding women working with the product must not be in direct contact with the product
 Persons suffering from asthma or eczema and persons who have chronic lung diseases, skin or respiratory allergies to isocyanates should not work with the material
 The requirements from the Danish Working Environment Authorities regarding work with epoxy resins and isocyanates must be observed during use and disposal
 The requirements from the Danish Working Environment Authorities regarding work with carcinogens must be followed during use and disposal

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Full text of H- and EUH-statements:	
Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), Category 4
Acute Tox. 4 (Inhalation:gas)	Acute toxicity (inhalation:gas) Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aerosol 1	Aerosol, Category 1
Carc. 2	Carcinogenicity, Category 2
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Flam. Gas 1	Flammable gases, Category 1
Press. Gas	Gases under pressure
Resp. Sens. 1	Sensitisation — Respiratory, Category 1
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Sensitisation — Skin, Category 1
STOT RE 2	Specific target organ toxicity — Repeated exposure, Category 2
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation
H220	Extremely flammable gas
H222	Extremely flammable aerosol
H229	Pressurised container: May burst 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
EUH204	Contains isocyanates. May produce an allergic reaction

SDS EU AKKIM

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product



File Number: R38267

Project Number: 4786842089

June 18, 2015

REPORT

on

Caulking and Sealants

Under the

CLASSIFICATION PROGRAM

AKKIM YAPI KIMYASALLARI SANAYI ve TICARET A.S.
ISTANBUL, TURKEY

Copyright © 2015 UL LLC

UL LLC authorizes the above named company to reproduce this Report provided it is reproduced in its entirety.

DESCRIPTION

PRODUCT COVERED:

* The **Products** covered by this Report **are** Caulking and **Sealants** identified as **Akkim 812, 812P, 840, 840P, 870, 870P, 882, 940, 960 and 965.**

* The **products are** Classified by UL LLC (UL) as to Surface Burning Characteristics.

USE:

The product is intended for use as a building material as permitted by authorities having jurisdiction.

TEST RECORD NO. 1

GENERAL:

Test results relate only to the items tested.

EXAMINATION OF MATERIALS:

The materials used in this investigation were produced under the observation of a representative of UL, in a ready-to-use form. The composition of the finished material is of proprietary nature. Data on the composition is on file at UL for use in the Follow-Up Service Program.

Various physical and chemical tests were conducted on the components and finished products. The results developed from these tests were employed in establishing specifications for use in the factory Follow-Up Service Program.

SURFACE BURNING CHARACTERISTICS:

SAMPLES

The samples consisted of foamed plastic caulking and sealant, identified as "Akkim-812P" applied to 1/4 in. thick inorganic reinforced cement board in two 12.7 mm (1/2 in.) diameter beads, 8 in. on center covering 5.5 percent of the exposed test area.

Each test sample consisted of three 8 by 2 ft. wide boards butted end-to-end to form the required 24 ft. long surface.

For each test a piece of 1 ft. long by 22 in. wide by 1/16 in. thick uncoated steel plate was placed at the fire end of the tunnel furnace "upstream" from the gas burners to complete the 25 ft. chamber length.

The test samples were allowed to condition at a temperature of 73 ±4°F and a relative humidity of 50±5 percent prior to testing.

METHOD

The tests were conducted in accordance with Standard ANSI/UL723, Tenth Edition, dated September 10, 2008 with revisions through August 12, 2013, "Test for Surface Burning Characteristics of Building Materials", (ASTM E84).

RESULTS

Data on flame spread and smoke developed appears in the following tabulations. Graphs of flame spread versus time and smoke developed versus time are also provided as part of the Test Record.

Flame Spread Index

The maximum distance the flame spreads along the length of the sample from the end of the igniting flame is determined by observation.

The Flame Spread Index (FSI) of the material is determined by rounding the Calculated Flame Spread (CFS) as described in UL 723. The CFS is derived by calculating the area under the flame spread distance (ft.) versus time (min) curve, ignoring any flame front recession, and using one of the calculation methods as described below.

1. If the total area (A_T) is less than or equal to 97.5 min-ft., the CFS shall be 0.515 times the total area ($FSI=0.515 A_T$).

2. If the total area (A_T) is greater than 97.5 min-ft., the CFS is to be 4900 divided by 195 minus the total area ($FSI=4900/(195-A_T)$).

Table 1: Flame Spread Summary

Test No.	Sample Description	Maximum Flame Spread (ft)	Time of Maximum Flame Spread (min:s)	Calculated Flame Spread (CFS)
1	Akkim-812P	0.0	0:06	0.00
2	Akkim-812P	0.0	0:04	0.00

Flame Spread Index	0
--------------------	---

Smoke Developed Index

The smoke Developed Index is determined by rounding the Calculated Smoke Developed (CSD) as described in UL 723. The CSD is determined by the output of a photoelectric circuit operating across the furnace flue pipe. A curve is developed by plotting values of light absorption (decrease in cell output) against time. The CSD is derived by expressing the net area under the curve for this material as a percentage of the net area under the curve for untreated red oak.

The CSD is expressed as:

$$\text{CSD} = (A_M / A_{ro}) \times 100$$

Where:

CSD=Calculated Smoke Developed

A_M = The area under the curve for the test material

A_{ro} = The area under the curve for untreated red oak

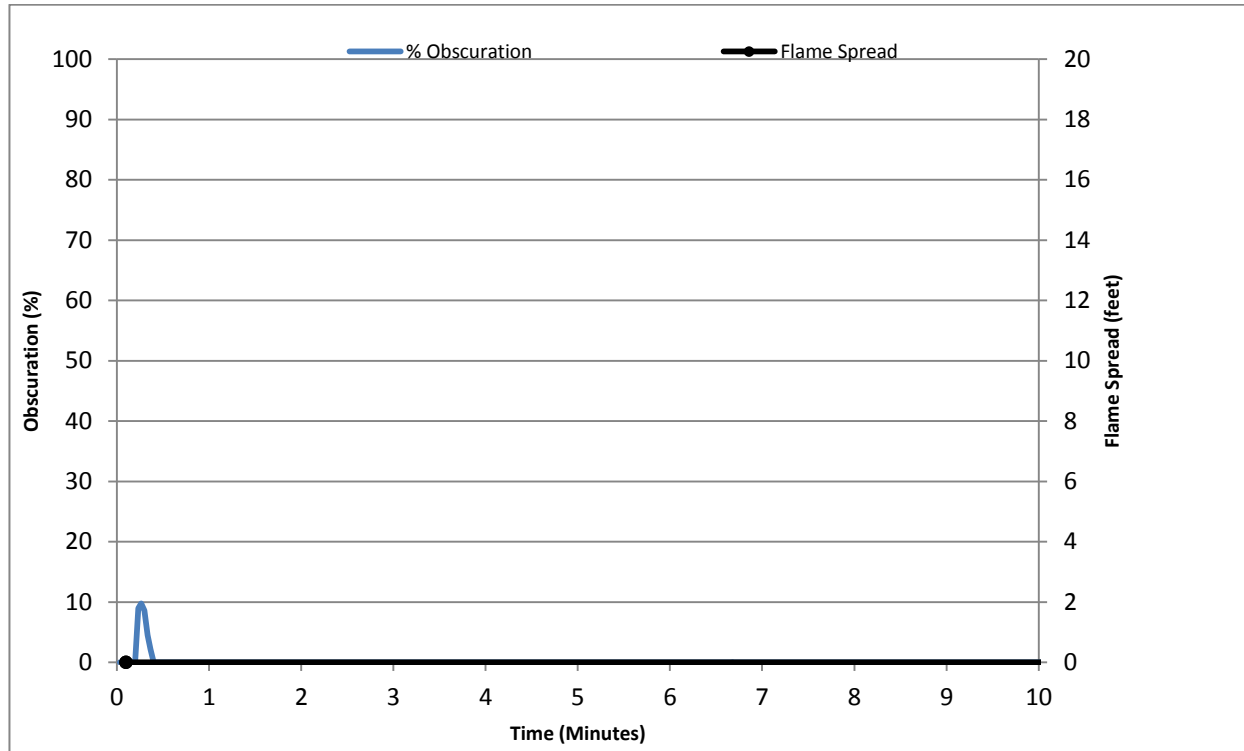
Table 2: Smoke Developed Summary

Test No.	Sample Description	CSD Calculated Smoke Developed
1	Akkim-812P	1.3
2	Akkim-812P	1.6

Smoke Developed Index	0
-----------------------	---

Flame Spread / Smoke Results

Akkim Yapi Kimyasallari Sanayi Ve Ticaaret A S
Akkim-812P

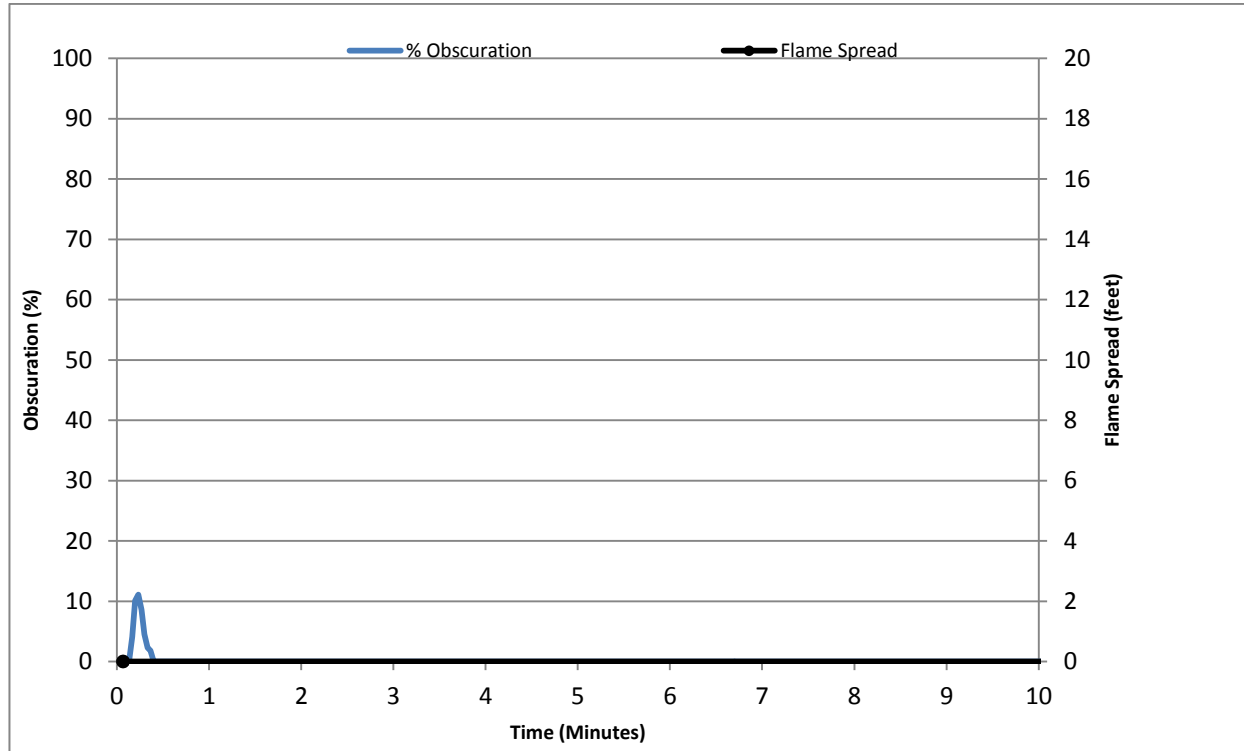


Test Num.: 1
R38267 / 4786842089
06051510

Flame Spread Index: 0
Smoke Developed Index: 0
Max. Flame Spread (ft.): 0.0

Flame Spread / Smoke Results

Akkim Yapi Kimyasallari Sanayi Ve Ticaaret A S
Akkim-812P



Test Num.: 2
R38267 / 4786842089
06051511

Flame Spread Index: 0
Smoke Developed Index: 0
Max. Flame Spread (ft.): 0.0

TEST RECORD SUMMARY:

The results of this investigation, including construction review and testing, indicate that the products evaluated comply with the applicable requirements in the Standard for Surface Burning Characteristics for Building Materials, UL723, Tenth Edition (dated September 10, 2008 with revisions through August 12, 2013) and, therefore, such products are judged eligible to bear UL's Mark as described below and on the Conclusion Page of this Report.

Any information and documentation provided to you involving UL Mark services are provided on behalf of UL or any authorized licensee of UL.

CLASSIFICATION MARKING:

The Surface Burning Characteristics as shown below in the Classification Marking represent the judgment of UL based upon the results of the examination and tests presented in this Report.



Caulking & Sealants
SURFACE BURNING CHARACTERISTICS
Applied to Inorganic
Reinforced Cement Board+
Flame Spread 0
Smoke Developed 0

+ - Tested in two 12.7 mm (1/2 in.) wide diameter beads, 8 in. O.C. covering 5.5 percent of the exposed test sample area

Test Record No. 1 by:

Handwritten signature of Judith G. Marzullo in black ink.

JUDITH G. MARZULLO
Lead Engineering Associate
Building Materials & Systems

Reviewed by:

Handwritten signature of James F. Smith in black ink.

JAMES F. SMITH
Staff Engineering Associate
Building Materials & Systems

TEST RECORD NO. 2

SAMPLE:

Caulking and sealants identified as Akkim 805, 805P, 806, 812, 840, 840P, 870, 870P, 877P, 882, 960 and 965. Test results relate only to the items tested.

STUDY FOR CLASSIFICATION PURPOSES:


Testing of the Akkim 805, 805P, 806, 812, 840, 840P, 870, 870P, 877P, 882, 960 and 965 for Surface Burning Characteristics was not considered necessary based upon information documented internally in Test Reference No. 1.

TEST RECORD 2 SUMMARY:

The results of this investigation indicate that the caulking and sealants evaluated in this test record comply with applicable requirements, and therefore, is judged to be eligible for Classification under the Laboratories product categories of Surface Burning Characteristics (BRYX).

Standard	Title	Edition or Publication Date	Latest Revision Date
ANSI/UL723	Surface Burning Characteristics for Building Materials	Tenth	August 12, 2013

The Classification Mark for the BRYX category (UL723) to be used on the Akkim 805, 805P, 806, 812, 840, 840P, 870, 870P, 877P, 882, 960 and 965 is illustrated below:

	Caulking & Sealants SURFACE BURNING CHARACTERISTICS Applied to Inorganic Reinforced Cement Board+
	Flame Spread 0
	Smoke Developed 0 + - Tested in two 12.7 mm (1/2 in.) wide diameter beads, 8 in. O.C. covering 5.5 percent of the exposed test sample area

Test Record No. 2 by:

Reviewed by:




JUDITH G. MARZULLO
Lead Engineering Associate
Building Materials & Systems

JAMES F. SMITH
Staff Engineering Associate
Building Materials & Systems

CONCLUSION

Samples of the product covered by this Report have been found to comply with the requirements covering the category and the products are found to comply with UL's applicable requirements. The description and test result in this Report are only applicable to the samples investigated by UL and does not signify UL certification or that the product described is covered under UL's Follow-Up Service Program. When covered under UL's Follow-Up Service Program, the manufacturer is authorized to use the UL Classification Mark on such products which comply with UL's Follow-Up Service Procedure and any other application requirements of UL. The Classification Mark of UL on the product, or the UL symbol on the product and the Classification Mark on the smallest unit container in which the product is packaged, is the only method to identify products investigated by UL to published requirements and manufactured under UL's Classification and Follow-Up Service.

This Report is intended solely for the use of UL and the Applicant for establishment of UL certification coverage of the product under UL's Follow-Up Service. UL retains all rights, title and interest (including exclusive ownership) in this Report and all copyright therein. Unless expressly authorized in writing by UL, the Applicant shall not disclose or otherwise distribute the Report or its contents to any third party or use this Report for any purpose other than to establish UL certification and become eligible for Follow-Up Service for the product described in this Report. Any other use of the Report including without limitation, evaluation or certification by a party other than UL unless part of a certification scheme, is prohibited and renders the Report null and void. UL shall not incur any obligation or liability for any loss, expense, or punitive damages, arising out of or in connection with the use or reliance upon the contents of this Report to anyone other than the Applicant as provided in the agreement between UL and Applicant. Any use or reference to UL's name or certification mark by anyone other than the Applicant in accordance with the agreement is prohibited without the express written approval of UL or any authorized licensee of UL. Any information and documentation involving UL Mark services are provided on behalf of UL or any authorized licensee of UL. UL shall not otherwise be responsible to anyone for the use of or reliance upon the contents of this Report.

Report by:



JUDITH G. MARZULLO
Lead Engineering Associate
Building Materials & Systems

Reviewed by:



JAMES F. SMITH
Staff Engineering Associate
Building Materials & Systems