



Safety Data Sheet

Copyright, 2012, 3M Company All rights reserved. Copying and/or downloading of this information for the purpose of properly utilising 3M products is allowed provided that: (1) the information is copied in full with no changes unless prior written agreement is obtained from 3M, and (2) neither the copy nor the original is resold or otherwise distributed with the intention of earning a profit thereon.

Document group:	29-8281-7	Version number:	1.00
Revision date:	07/02/2012	Supersedes date:	Initial issue.
Transportation version number:	1.00 (07/02/2012)		

This Safety Data Sheet has been prepared in accordance with the REACH Regulation (EC) 1907/2006 and its modifications.

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

1.1. Product identifier

3M™ ESPE™ Scotchbond™ Universal DCA

Product identification numbers

70-2011-3907-1

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

Identified uses

Dental Product

1.3. Details of the supplier of the substance or mixture

Address: 3M United Kingdom PLC, 3M Centre, Cain Road, Bracknell, Berkshire, RG12 8HT.

E Mail: tox.uk@mmm.com

Website: www.3M.com/uk

1.4. Emergency telephone number

+44 (0)1344 858 000

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture

Dangerous substances(67/548/EEC)/preparations(1999/45/EC) directive

Indication of danger

Highly flammable.

2.2. Label elements

Dangerous substances(67/548/EEC)/preparations(1999/45/EC) directive

Symbols

F Highly flammable.

Contains:

No ingredients are assigned to the label.

Risk phrases

R11 Highly flammable.

Safety phrases

S16 Keep away from sources of ignition - No Smoking.

This product is exempt from labelling per Directive 1999/45/EC as it is defined as a medical device according to Directive 93/42/EEC and is invasive or comes into contact with the human body.

2.3. Other hazards

None known.

SECTION 3: Composition/information on ingredients

Ingredient	CAS Nbr	EU Inventory	% by Wt	Classification
Ethanol	64-17-5	EINECS 200-578-6	90 - 100	F:R11 (EU) Flam. Liq. 2, H225 (CLP)
Sodium toluene-4-sulphinate	824-79-3	EINECS 212-538-5	< 5	
Butanone	78-93-3	EINECS 201-159-0	< 2	F:R11; Xi:R36; R66; R67 (EU) Flam. Liq. 2, H225; Eye Irrit. 2, H319; STOT SE 3, H336 (CLP)

Please see section 16 for the full text of any R phrases and H statements referred to in this section

Please refer to section 15 for the any applicable Notas that have been applied to the above components

For information on ingredient occupational exposure limits or PBT or vPvB status, see sections 8 and 12 of this SDS

SECTION 4: First aid measures**4.1. Description of first aid measures****Eye contact**

Flush with large amounts of water. Remove contact lenses if easy to do. Continue rinsing. If signs/symptoms persist, get medical attention.

Skin contact

Immediately wash with soap and water. Remove contaminated clothing and wash before reuse. If signs/symptoms develop, get medical attention.

Inhalation

Remove person to fresh air. If you feel unwell, get medical attention.

If swallowed

Rinse mouth. If you feel unwell, get medical attention.

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

See Section 11.1 Information on toxicological effects

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

Not applicable

SECTION 5: Fire-fighting measures

5.1. Extinguishing media

In case of fire: Use a fire fighting agent suitable for flammable liquids or gases such as dry chemical or carbon dioxide.

5.2. Special hazards arising from the substance or mixture

Closed containers exposed to heat from fire may build pressure and explode.

Hazardous Decomposition or By-Products

Substance

Carbon monoxide.

Carbon dioxide.

Condition

During combustion.

During combustion.

5.3. Advice for fire-fighters

Water may not effectively extinguish fire; however, it should be used to keep fire-exposed containers and surfaces cool and prevent explosive rupture.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Ventilate the area with fresh air. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use only non-sparking tools. Refer to other sections of this SDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Cover spill area with a fire-extinguishing foam designed for use on solvents, such as alcohols and acetone, that can dissolve in water. An AR-AFFF type foam is recommended. Collect as much of the spilled material as possible using non-sparking tools. Working from around the edges of the spill inward, cover with bentonite, vermiculite, or commercially available inorganic absorbent material. Mix in sufficient absorbent until it appears dry. Remember, adding an absorbent material does not remove a toxic, corrosivity or flammability hazard. Place in a metal container approved for transportation by appropriate authorities. Clean up residue with water. Seal the container.

6.4. Reference to other sections

Refer to Section 8 and Section 13 for more information

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use only non-sparking tools. Avoid breathing dust/fume/gas/mist/vapours/spray. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Avoid release to the environment. Avoid contact with oxidising agents (eg. chlorine, chromic acid etc.)

7.2. Conditions for safe storage including any incompatibilities

Keep container tightly closed. Store in a well-ventilated place. Keep cool. Store away from acids. Store away from oxidising agents.

7.3. Specific end use(s)

See information in Section 7.1 and 7.2 for handling and storage recommendations. See Section 8 for exposure controls and personal protection recommendations.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

Ingredient	CAS Nbr	Agency	Limit type	Additional comments
Ethanol	64-17-5	Health and Safety Comm. (UK)	TWA: 1920 mg/m ³ (1000 ppm)	
Butanone	78-93-3	Health and Safety Comm. (UK)	TWA: 600 mg/m ³ (200 ppm); STEL: 899 mg/m ³ (300 ppm)	Skin Notation

Health and Safety Comm. (UK) : UK Health and Safety Commission

TWA: Time-Weighted-Average

STEL: Short Term Exposure Limit

ppm: parts per million

mg/m³: milligrams per cubic metre

CEIL: Ceiling

8.2. Exposure controls

8.2.1. Engineering controls

Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below relevant Exposure Limits and/or control dust/fume/gas/mist/vapours/spray. If ventilation is not adequate, use respiratory protection equipment.

8.2.2. Personal protective equipment (PPE)

Eye/face protection

Wear eye/face protection.

The following eye protection(s) are recommended: Safety glasses with side shields.

Skin/hand protection

Select and use gloves and/or protective clothing to prevent skin contact based on the results of an exposure assessment. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible materials.

Respiratory protection

Under normal use conditions, airborne exposures are not expected to be significant enough to require respiratory protection.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Liquid.
Appearance/Odour	alcohol, colourless
pH	± 7
Boiling point/boiling range	75 °C - 78 °C
Melting point	-114.5 °C [Details: Ethanol]
Flammability (solid, gas)	Flammable Liquid: Category 2.

Explosive properties	Not classified
Oxidising properties	Not classified
Flash point	12 °C [Test Method: Closed Cup] [Details: Ethanol]
Autoignition temperature	425 °C [Details: Ethanol]
Flammable Limits(LEL)	1.3 % volume
Flammable Limits(UEL)	15 % volume [Details: Ethanol]
Vapour pressure	5.9 kPa
Relative density	± 0.8
Water solubility	Complete
Partition coefficient: n-octanol/water	-31 [Details: Ethanol (Lit)]
Evaporation rate	No data available.
Vapour density	No data available.
Viscosity	No data available.
Density	± 0.8 g/m ³

9.2. Other information

SECTION 10: Stability and reactivity

10.1 Reactivity

This material is considered to be non reactive under normal use conditions

10.2 Chemical stability

Stable.

10.3 Possibility of hazardous reactions

Hazardous polymerisation will not occur.

10.4 Conditions to avoid

Sparks and/or flames.

10.5 Incompatible materials

Strong oxidising agents.

10.6 Hazardous decomposition products

<u>Substance</u>	<u>Condition</u>
------------------	------------------

None known.	
-------------	--

SECTION 11: Toxicological information

The information below may not be consistent with the material classification in Section 2 if specific ingredient classifications are mandated by a competent authority. In addition, toxicological data on ingredients may not be reflected in the material classification and/or the signs and symptoms of exposure, because an ingredient may be present below the threshold for labelling, an ingredient may not be available for exposure, or the data may not be relevant to the material as a whole.

11.1 Information on Toxicological effects

Signs and Symptoms of Exposure

Based on test data and/or information on the components, this material may produce the following health effects:

Eye contact

Moderate eye irritation: Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision.

Skin contact

Contact with the skin during product use is not expected to result in significant irritation.

Inhalation

Respiratory tract irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain. May cause target organ effects after inhalation.

Ingestion

Gastrointestinal irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhoea. May cause target organ effects after ingestion.

Target Organ Effects:

Central nervous system (CNS) depression: Signs/symptoms may include headache, dizziness, drowsiness, incoordination, nausea, slowed reaction time, slurred speech, giddiness, and unconsciousness.

Additional information:

This product contains ethanol. Alcoholic beverages and ethanol in alcoholic beverages have been classified by the International Agency for Research on Cancer as carcinogenic to humans. There are also data associating human consumption of alcoholic beverages with developmental toxicity and liver toxicity. Exposure to ethanol during the foreseeable use of this product is not expected to cause cancer, developmental toxicity, or liver toxicity.

Toxicological Data

Acute Toxicity

Name	Route	Species	Value	UN GHS Classification
Overall product	Ingestion		No test data available; calculated ATE >5,000 mg/kg	Not classified (2.3% unknown)
Ethanol	Inhalation-Vapor (4 hours)	Rat	LC50 125 mg/l	Not classified
Ethanol	Ingestion	Rat	LD50 6,200 mg/kg	Not classified
Sodium toluene-4-sulphinate			No data available	
Butanone	Dermal	Rabbit	LD50 8,001 mg/l	Not classified
Butanone	Inhalation-Vapor (4 hours)	Rat	LC50 35 mg/kg	Category5
Butanone	Ingestion	Rat	LD50 2,737 mg/kg	Category5

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value	UN GHS Classification
Overall product		No test data available; calculated to cause no significant irritation	Not classified
Ethanol		Minimal irritation	Not classified
Sodium toluene-4-sulphinate		No data available	
Butanone		Minimal irritation	Not classified

Serious Eye Damage/Irritation

Name	Species	Value	UN GHS Classification
Overall product		No test data available; calculated to be moderate	Category 2B

		irritant	
Ethanol		Moderate irritant	Category 2B
Sodium toluene-4-sulphinate		No data available	
Butanone		Moderate irritant	Category 2B

Skin Sensitisation

Name	Species	Value	UN GHS Classification
Overall product		No test data available.	Not classified based on component data
Ethanol		Some positive data exist, but the data are not sufficient for classification	Not classified
Sodium toluene-4-sulphinate		No data available	
Butanone		No data available	

Respiratory Sensitisation

Name	Species	Value	UN GHS Classification
Overall product		No test data available.	Not classified based on component data
Ethanol		No data available	
Sodium toluene-4-sulphinate		No data available	
Butanone		No data available	

Germ Cell Mutagenicity

Name	Route	Value	UN GHS Classification
Overall product		No data available	Overall Germ Cell Mutagenicity classification Not classified
Overall product		No test data available.	
Ethanol	In Vitro	Some positive data exist, but the data are not sufficient for classification	Not classified
Ethanol	Ingestion	Some positive data exist, but the data are not sufficient for classification	Not classified
Sodium toluene-4-sulphinate		No data available	
Butanone	In Vitro	Not mutagenic	Not classified

Carcinogenicity

Name	Route	Species	Value	UN GHS Classification
Overall product			No test data available.	Not classified based on component data
Ethanol	Ingestion		Carcinogenic.	Category 1A
Sodium toluene-4-sulphinate			No data available	
Butanone	Inhalation		Not carcinogenic	Not classified

Reproductive Toxicity**Reproductive and/or Developmental Effects**

Name	Route	Value	Species	Test result	Exposure Duration	UN GHS Classification
Overall product		No test data available.				Not classified based on component data
Ethanol	Inhalation	Not toxic to reproduction and/or development		NOAEL 20,000 ppm		
Ethanol	Ingestion	Toxic to reproduction and/or development		NOAEL N/A		

Sodium toluene-4-sulphinate		No data available				
Butanone	Inhalation	Some positive reproductive/developmental data exist, but the data are not sufficient for classification		LOAEL 8.8 mg/l		

Target Organ(s)**Specific Target Organ Toxicity - single exposure**

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration	UN GHS Classification
Ethanol	Inhalation	central nervous system depression	May cause drowsiness or dizziness		NOAEL N/A		Category 3
Ethanol	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification		Irritation Positive		Not classified
Ethanol	Ingestion	central nervous system depression	May cause drowsiness or dizziness		NOAEL N/A		Category 3
Ethanol	Ingestion	heart	Some positive data exist, but the data are not sufficient for classification		NOAEL N/A		Not classified
Ethanol	Ingestion	kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification		LOEL 3,000 mg/kg		Not classified
Sodium toluene-4-sulphinate			No data available				
Butanone	Inhalation	central nervous system depression	May cause drowsiness or dizziness		LOAEL 29 mg/l		Category 3
Butanone	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification		Irritation Positive		Not classified
Butanone	Ingestion	liver	Some positive data exist, but the data are not sufficient for classification		NOAEL 1,500 mg/kg/day		Not classified
Butanone	Ingestion	kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification		LOAEL 1,080 mg/kg		Not classified

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration	UN GHS Classification
Overall product			No test data available.				Not classified based on component data
Ethanol	Inhalation	liver	Some positive data exist, but the data are not sufficient for classification		NOAEL N/A		Not classified
Ethanol	Inhalation	bone marrow hematopoietic system immune system	Some positive data exist, but the data are not sufficient for classification		LOEL 25 mg/l		Not classified
Ethanol	Ingestion	liver	Causes damage to organs through prolonged or repeated exposure		NOAEL N/A		Category 1
Ethanol	Ingestion	heart endocrine system	Some positive data exist, but the data are not sufficient for classification		NOAEL N/A		Not classified
Ethanol	Ingestion	kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification		LOEL 3,000 mg/kg/day		Not classified
Sodium toluene-4-sulphonate			No data available				
Butanone	Dermal	nervous system	All data are negative		NOAEL 2		Not classified
Butanone	Inhalation	liver kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification		NOAEL 14.7 mg/l		Not classified
Butanone	Inhalation	heart endocrine system bone, teeth, nails, and/or hair hematopoietic system immune system muscles	All data are negative		NOAEL 14.7 mg/l		Not classified
Butanone	Ingestion	liver	Some positive data exist, but the data are not sufficient for classification		NOAEL 1,500 mg/kg/day		Not classified
Butanone	Ingestion	nervous system	All data are negative		NOAEL 173 mg/kg/day		Not classified

Aspiration Hazard

Name	Value	UN GHS Classification
Overall product	No test data available.	Not classified based on component and/or viscosity data

Ethanol	Not an aspiration hazard	Not classified
Sodium toluene-4-sulphinate	Not an aspiration hazard	Not classified
Butanone	Not an aspiration hazard	Not classified

Please contact the address or phone number listed on the first page of the SDS for additional toxicological information on this material and/or its components.

SECTION 12: Ecological information

The information below may not be consistent with the material classification in Section 2 if specific ingredient classifications are mandated by a competent authority. Additional information leading to material classification in Section 2 is available upon request. In addition, environmental fate and effects data on ingredients may not be reflected in this section because an ingredient is present below the threshold for labelling, an ingredient is not expected to be available for exposure, or the data is considered not relevant to the material as a whole.

12.1. Toxicity

Acute aquatic hazard:

GHS Acute 3: Harmful to aquatic life.

Chronic aquatic hazard:

Not chronically toxic to aquatic life by GHS criteria.

No product test data available.

No component test data available.

12.2. Persistence and degradability

No test data available.

12.3 : Bioaccumulative potential

No test data available.

12.4. Mobility in soil

Please contact manufacturer for more details

12.5. Results of the PBT and vPvB assessment

No information available at this time, contact manufacturer for more details

12.6. Other adverse effects

No information available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

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

Empty drums/barrels/containers used for transporting and handling hazardous chemicals (chemical substances/mixtures/preparations classified as hazardous as per applicable regulations) shall be considered, stored, treated & disposed of as hazardous wastes unless otherwise defined by applicable waste regulations. Consult with the respective regulating authorities to determine the available treatment and disposal facilities. Dispose of waste product in a permitted industrial waste facility.

The coding of a waste stream is based on the application of the product by the consumer. Since this is out of the control of 3M, no waste code(s) for products after use will be provided. Please refer to the European Waste Code (EWC - 2000/532/EC

and amendments) to assign the correct waste code to your waste stream. Ensure national and/or regional regulations are complied with and always use a licensed waste contractor.

EU waste code (product as sold)

180106* Chemicals consisting of or containing dangerous substances.

SECTION 14: Transportation information

70-2011-3907-1

ADR/RID: DANGEROUS GOODS IN EXCEPTED QUANTITIES, CLASS 3, 3, (–).

IMDG-CODE: DANGEROUS GOODS IN EXCEPTED QUANTITIES OF CLASS 3,, IMDG-Code segregation code: –.

ICAO/IATA: DANGEROUS GOODS IN EXCEPTED QUANTITIES OF CLASS 3UN 1170.

SECTION 15: Regulatory information

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

Global inventory status

Contact 3M for more information. The components of this product are in compliance with the new substance notification requirements of CEPA.

15.2. Chemical Safety Assessment

Not applicable

SECTION 16: Other information

List of relevant H statements

H225	Highly flammable liquid and vapour.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.

List of relevant R-phrases

R11	Highly flammable.
R36	Irritating to eyes.
R66	Repeated exposure may cause skin dryness or cracking.
R67	Vapours may cause drowsiness and dizziness.

Revision information:

No revision information is available.

DISCLAIMER: The information on this Safety Data Sheet is based on our experience and is correct to the best of our knowledge at the date of publication, but we do not accept any liability for any loss, damage or injury resulting from its use (except as required by law). The information may not be valid for any use not referred to in this Data Sheet or use of the product in combination with other materials. For these reasons, it is important that customers carry out their own test to satisfy themselves as to the suitability of the product for their own intended applications.

3M United Kingdom MSDSs are available at www.3M.com/uk