

Safety Data Sheet

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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 Aerospace Sealant AC-665 B-1/2 and B-2 Base

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

Identified uses Sealant.

1.3. Details of the supplier of the safety data sheet

Details of the s	apprier of the survey auta sheet
Address:	3M United Kingdom PLC, 3M Centre, Cain Road, Bracknell, Berkshire, RG12 8HT.
Telephone:	+44 (0)1344 858 000
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 CLP REGULATION (EC) No 1272/2008

CLASSIFICATION:

Carcinogenicity, Category 1B - Carc. 1B; H350 Hazardous to the Aquatic Environment (Acute), Category 1 - Aquatic Acute 1; H400 Hazardous to the Aquatic Environment (Chronic), Category 1 - Aquatic Chronic 1; H410

For full text of H phrases, see Section 16.

2.2. Label elements CLP REGULATION (EC) No 1272/2008

SIGNAL WORD DANGER. Symbols: GHS08 (Health Hazard) |GHS09 (Environment) |

Pictograms



Ingredients:		
Ingredient	CAS Nbr	% by Wt
Calcium Chromate	13765-19-0	2 - 8
Strontium chromate	7789-06-2	0.1 - 2

HAZARD STATEMENTS: H350

May cause cancer.

H410

Very toxic to aquatic life with long lasting effects.

PRECAUTIONARY STATEMENTS

Prevention:	
P201	Obtain special instructions before use.
P280E	Wear protective gloves.
P273	Avoid release to the environment.
Response:	
P308 + P313	IF exposed or concerned: Get medical advice/attention.
Disposal:	
P501	Dispose of contents/container in accordance with applicable local/regional/national/international regulations.
For containers not exceeding 125	ml the following Hazard and Precautionary statements may be used:
<=125 ml Hazard statements	
H350	May cause cancer.
<=125 ml Precautionary stateme	nts
Prevention:	
P201	Obtain special instructions before use.
P280E	Wear protective gloves.
Response:	
P308 + P313	IF exposed or concerned: Get medical advice/attention.
SUPPLEMENTAL INFORMAT	ION
Supplemental Hazard Statement	s:
EUH208	Contains Formaldehyde, oligomeric reaction products with phenol. Strontium
	chromate. May produce an allergic reaction.
Supplemental Precautionary Sta	tements:

Restricted to professional users.

1% of the mixture consists of components of unknown acute oral toxicity.

Contains 67% of components with unknown hazards to the aquatic environment.

2.3. Other hazards

Contains a substance that meets the criteria for vPvB in accordance with REACH Regulation (1907/2006) and its modifications

SECTION 3: Composition/information on ingredients

Ingredient	CAS Nbr	EC No.	REACH Registration No.	% by Wt	Classification
Propane, 1,2,3-trichloro-, polymer with 1,1'-[methylenebis(oxy)]bis[2- chloroethane] and sodium sulfide (Na2(Sx)), reduced	68611-50-7			60 - 70	Substance not classified as hazardous
Calcium Carbonate	471-34-1	207-439-9		20 - 30	Substance with a Community level exposure limit in the workplace
Calcium Chromate	13765-19-0	237-366-8		2 - 8	Acute Tox. 4, H302; Carc. 1B, H350; Aquatic Acute 1, H400,M=10; Aquatic Chronic 1 H410,M=10
Fatty Acids, C14-18	67701-02-4	266-926-4		0.1 - 2	Substance not classified as hazardous
Strontium chromate	7789-06-2	232-142-6		0.1 - 2	Acute Tox. 4, H302; Carc. 1B, H350; Aquatic Acute 1, H400,M=10; Aquatic Chronic 1 H410,M=10 Acute Tox. 2, H330; Skin Sens. 1, H317; Muta. 2, H341; Repr. 2, H361df; STOT SE 3, H335
Titanium dioxide	13463-67-7	236-675-5		0.1 - 2	Substance with a Community level exposure limit in the workplace
Formaldehyde, oligomeric reaction products with phenol	9003-35-4	500-005-2		0.1 - 1	Skin Sens. 1, H317

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

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

Inhalation

Remove person to fresh air. If you feel unwell, 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.

Eye contact

No need for first aid is anticipated.

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 ordinary combustible material such as water or foam to extinguish.

5.2. Special hazards arising from the substance or mixture

None inherent in this product.

Hazardous Decomposition or By-Products

<u>Substance</u> Formaldehyde Carbon monoxide. Carbon dioxide. <u>Condition</u> During combustion. During combustion. During combustion.

5.3. Advice for fire-fighters

No special protective actions for fire-fighters are anticipated.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Evacuate area. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapours, in accordance with good industrial hygiene practice. 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. For larger spills, cover drains and build dykes to prevent entry into sewer systems or bodies of water.

6.3. Methods and material for containment and cleaning up

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 physical, health, or environmental hazard. Collect as much of the spilled material as possible. Place in a closed container approved for transportation by appropriate authorities. Clean up residue with an appropriate solvent selected by a qualified and authorised person. Ventilate the area with fresh air. Read and follow safety precautions on the solvent label and Safety Data Sheet. Seal the container. Dispose of collected material as soon as possible.

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

Do not handle until all safety precautions have been read and understood. Do not breathe 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. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wash contaminated clothing before reuse. Use personal protective equipment (eg. gloves, respirators...) as required.

7.2. Conditions for safe storage including any incompatibilities

Store away from heat. Store away from acids. Store away from strong bases.

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

If a component is disclosed in section 3 but does not appear in the table below, an occupational exposure limit is not available for the component.

Ingredient	CAS Nbr	Agency	Limit type	Additional comments
l itanium dioxide	13463-6/-/	UK HSC	ng/m3;TWA(respirable):4 mg/m ³	
Chromium (hexavalent compounds)	13765-19-0	UK HSC	TWA(as Cr):0.05 mg/m3	Respiratory Sensitizer
Limestone	471-34-1	UK HSC	TWA(as inhalable dust):10 mg/m3;TWA(as respirable dust):4 mg/m3;TWA(Inhalable):10 mg/m3;TWA(respirable):4 mg/m3	
Chromium (hexavalent compounds)	7789-06-2	UK HSC	TWA(as Cr):0.05 mg/m3	Respiratory Sensitizer
UK HSC : UK Health and Safety Commission	on			

TWA: Time-Weighted-Average STEL: Short Term Exposure Limit CEIL: Ceiling

Biological limit values

Ingredient	CAS Nbr	Agency	Determinant	Biological Specimen	Sampling Time	Value	Additional comments
Chromium	13765-	UK EH40	Chromium	Creatinine in	EOS	10 umol/mol	
(hexavalent compounds)	19-0	BMGVs		urine			
Chromium	7789-	UK EH40	Chromium	Creatinine in	EOS	10 umol/mol	
(hexavalent	06-2	BMGVs		urine			
compounds)							

UK EH40 BMGVs : UK. EH40 Biological Monitoring Guidance Values (BMGVs) EOS: End of shift.

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

None required.

Skin/hand protection

Select and use gloves and/or protective clothing approved to relevant local standards to prevent skin contact based on the results of an exposure assessment. Selection should be based on use factors such as exposure levels, concentration of the substance or mixture, frequency and duration, physical challenges such as temperature extremes, and other use conditions. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible gloves/protective clothing. Note: Nitrile gloves may be worn over polymer laminate gloves to improve dexterity. Gloves made from the following material(s) are recommended:

Material	Thickness (mm)	Breakthrough Time
Polymer laminate	No data available	No data available

If this product is used in a manner that presents a higher potential for exposure (eg. spraying, high splash potential etc.), then use of protective coveralls may be necessary. Select and use body protection to prevent contact based on the results of an exposure assessment. The following protective clothing material(s) are recommended: Apron - polymer laminate

Respiratory protection

An exposure assessment may be needed to decide if a respirator is required. If a respirator is needed, use respirators as part of a full respiratory protection program. Based on the results of the exposure assessment, select from the following respirator type(s) to reduce inhalation exposure:

Half facepiece or full facepiece air-purifying respirator suitable for organic vapours and particulates

For questions about suitability for a specific application, consult with your respirator manufacturer.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Liquid.
Specific Physical Form:	Thixotropic Paste
Appearance/Odour	Sulphurous odour; Yellow paste
Odour threshold	No data available.
рН	No data available.
Boiling point/boiling range	Not applicable.
Melting point	Not applicable.
Flammability (solid, gas)	Not applicable.
Explosive properties	Not classified
Oxidising properties	Not classified
Flash point	>=93.3 °C [Test Method:Closed Cup]
Autoignition temperature	No data available.
Flammable Limits(LEL)	No data available.
Flammable Limits(UEL)	No data available.
Vapour pressure	No data available.
Relative density	1.53 [<i>Ref Std</i> :WATER=1]
Water solubility	Nil
Solubility- non-water	No data available.
Partition coefficient: n-octanol/water	No data available.

Evaporation rate Vapour density Decomposition temperature Viscosity Density No data available. No data available. No data available. No data available. 1.53 g/ml

9.2. Other information

Data is not available for other physical and chemical parameters.

SECTION 10: Stability and reactivity

10.1 Reactivity

This material may be reactive with certain agents under certain conditions - see the remaining headings in this section

10.2 Chemical stability

Stable.

10.3 Possibility of hazardous reactions Hazardous polymerisation will not occur.

10.4 Conditions to avoid Heat.

10.5 Incompatible materials Strong bases. Strong acids.

10.6 Hazardous decomposition products <u>Substance</u> None known.

Refer to section 5.2 for hazardous decomposition products during combustion.

SECTION 11: Toxicological information

The information below may not agree with the EU material classification in Section 2 and/or the ingredient classifications in Section 3 if specific ingredient classifications are mandated by a competent authority. In addition, statements and data presented in Section 11 are based on UN GHS calculation rules and classifications derived from 3M assessments.

Condition

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:

Inhalation

Respiratory tract irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain. May cause additional health effects (see below).

Skin contact

Contact with the skin during product use is not expected to result in significant irritation. Allergic skin reaction (non-photo

induced): Signs/symptoms may include redness, swelling, blistering, and itching. May cause additional health effects (see below).

Eye contact

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

Ingestion

May cause additional health effects (see below).

Additional Health Effects:

Single exposure may cause target organ effects:

Kidney/Bladder effects: Signs/symptoms may include changes in urine production, abdominal or lower back pain, increased protein in urine, increased blood urea nitrogen (BUN), blood in urine, and painful urination.

Prolonged or repeated exposure may cause target organ effects:

Respiratory effects: Signs/symptoms may include cough, shortness of breath, chest tightness, wheezing, increased heart rate, bluish coloured skin (cyanosis), sputum production, changes in lung function tests, and respiratory failure. Kidney/Bladder effects: Signs/symptoms may include changes in urine production, abdominal or lower back pain, increased protein in urine, increased blood urea nitrogen (BUN), blood in urine, and painful urination.

Reproductive/Developmental Toxicity:

Contains a chemical or chemicals which can cause birth defects or other reproductive harm.

Genotoxicity:

Genotoxicity and Mutagenicity: May interact with genetic material and possibly alter gene expression.

Carcinogenicity:

Contains a chemical or chemicals which can cause cancer.

Toxicological Data

If a component is disclosed in section 3 but does not appear in a table below, either no data are available for that endpoint or the data are not sufficient for classification.

Acute Toxicity

Name	Route	Species	Value
Overall product	Ingestion		No data available; calculated ATE >5,000 mg/kg
Propane, 1,2,3-trichloro-, polymer with 1,1'- [methylenebis(oxy)]bis[2- chloroethane] and sodium sulfide (Na2(Sx)), reduced	Dermal	Rat	LD50 > 7,800 mg/kg
Propane, 1,2,3-trichloro-, polymer with 1,1'- [methylenebis(oxy)]bis[2- chloroethane] and sodium sulfide (Na2(Sx)), reduced	Ingestion	Rat	LD50 > 5,000 mg/kg
Calcium Carbonate	Dermal	Rat	LD50 > 2,000 mg/kg
Calcium Carbonate	Inhalation- Dust/Mist (4 hours)	Rat	LC50 3 mg/l
Calcium Carbonate	Ingestion	Rat	LD50 6,450 mg/kg
Calcium Chromate	Ingestion	Rat	LD50 327 mg/kg
Titanium dioxide	Dermal	Rabbit	LD50 > 10,000 mg/kg
Titanium dioxide	Inhalation- Dust/Mist (4 hours)	Rat	LC50 > 6.82 mg/l
Titanium dioxide	Ingestion	Rat	LD50 > 10,000 mg/kg
Strontium chromate	Dermal		LD50 estimated to be 2,000 - 5,000 mg/kg
Strontium chromate	Inhalation- Dust/Mist (4 hours)	Rat	LC50 > 0.27 mg/l
Strontium chromate	Ingestion	Rat	LD50 3,118 mg/kg

Formaldehyde, oligomeric reaction products with phenol	Dermal	Rat	LD50 > 2,000 mg/kg
Formaldehyde, oligomeric reaction products with phenol	Ingestion	Rat	LD50 > 2,900 mg/kg
ATE = acute toxicity estimate			

Name	Species	Value
Propane, 1,2,3-trichloro-, polymer with 1,1'-[methylenebis(oxy)]bis[2- chloroethane] and sodium sulfide (Na2(Sx)), reduced	Rabbit	No significant irritation
Calcium Carbonate	Rabbit	No significant irritation
Calcium Chromate	Professio	Mild irritant
	nal judgemen t	
Titanium dioxide	Rabbit	No significant irritation
Strontium chromate	Professio nal judgemen t	Mild irritant
Formaldehyde, oligomeric reaction products with phenol	Human and animal	Mild irritant

Serious Eye Damage/Irritation

Name	Species	Value
Propane, 1,2,3-trichloro-, polymer with 1,1'-[methylenebis(oxy)]bis[2-	Rabbit	No significant irritation
chloroethane] and sodium sulfide (Na2(Sx)), reduced		
Calcium Carbonate	Rabbit	No significant irritation
Calcium Chromate	Professio	Moderate irritant
	nal	
	judgemen	
	t	
Titanium dioxide	Rabbit	No significant irritation
Strontium chromate	Rabbit	Mild irritant
Formaldehyde, oligomeric reaction products with phenol	Human	Moderate irritant
	and	
	animal	

Skin Sensitisation

Name	Species	Value
Propane, 1,2,3-trichloro-, polymer with 1,1'-[methylenebis(oxy)]bis[2- chloroethane] and sodium sulfide (Na2(Sx)), reduced		Not sensitising
Calcium Chromate	similar compoun ds	Sensitising
Titanium dioxide	Human and animal	Not sensitising
Strontium chromate	similar compoun ds	Sensitising
Formaldehyde, oligomeric reaction products with phenol	Human and animal	Sensitising

Respiratory Sensitisation

Name	Species	Value
Formaldehyde, oligomeric reaction products with phenol	Human	Some positive data exist, but the data are not sufficient for classification

Germ Cell Mutagenicity

Name	Route	Value
Calcium Chromate	In vivo	Mutagenic
Titanium dioxide	In Vitro	Not mutagenic
Titanium dioxide	In vivo	Not mutagenic
Strontium chromate	In vivo	Mutagenic

Carcinogenicity

Name	Route	Species	Value
Calcium Chromate	Not	similar	Carcinogenic.
	specified.	compoun	
		ds	
Titanium dioxide	Ingestion	Multiple	Not carcinogenic
		animal	
		species	
Titanium dioxide	Inhalation	Rat	Carcinogenic.
Strontium chromate	Not	similar	Carcinogenic.
	specified.	compoun	
	-	ds	

Reproductive Toxicity

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test result	Exposure Duration
Calcium Carbonate	Ingestion	Not toxic to development	Rat	NOAEL 625 mg/kg/day	premating & during gestation
Calcium Chromate	Ingestion	Toxic to female reproduction	similar compoun ds	NOAEL Not available	
Calcium Chromate	Ingestion	Toxic to male reproduction	similar compoun ds	NOAEL Not available	
Calcium Chromate	Ingestion	Toxic to development	similar compoun ds	NOAEL Not available	
Strontium chromate	Ingestion	Toxic to female reproduction	similar compoun ds	NOAEL Not available	
Strontium chromate	Ingestion	Toxic to male reproduction	similar compoun ds	NOAEL Not available	
Strontium chromate	Ingestion	Toxic to development	similar compoun ds	NOAEL Not available	

Target Organ(s)

Specific Target Organ Toxicity - single exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Calcium Carbonate	Inhalation	respiratory system	All data are negative	Rat	NOAEL 0.812 mg/l	90 minutes
Calcium Chromate	Inhalation	respiratory irritation	May cause respiratory irritation	similar compoun ds	NOAEL Not available	
Calcium Chromate	Ingestion	kidney and/or bladder	Causes damage to organs	similar compoun ds	NOAEL Not available	
Strontium chromate	Inhalation	respiratory irritation	May cause respiratory irritation	similar compoun ds	NOAEL Not available	
Strontium chromate	Ingestion	kidney and/or bladder	Causes damage to organs	similar compoun	NOAEL Not available	

				ds		
Formaldehyde, oligomeric	Inhalation	respiratory irritation	Some positive data exist, but the	Human	NOAEL Not	
reaction products with			data are not sufficient for	and	available	
phenol			classification	animal		

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Calcium Carbonate	Inhalation	respiratory system	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	occupational exposure
Calcium Chromate	Inhalation	respiratory system	Causes damage to organs through prolonged or repeated exposure	similar compoun ds	NOAEL Not available	
Calcium Chromate	Ingestion	kidney and/or bladder	May cause damage to organs though prolonged or repeated exposure	similar compoun ds	NOAEL Not available	
Titanium dioxide	Inhalation	respiratory system	Some positive data exist, but the data are not sufficient for classification	Rat	LOAEL 0.01 mg/l	2 years
Titanium dioxide	Inhalation	pulmonary fibrosis	All data are negative	Human	NOAEL Not available	occupational exposure
Strontium chromate	Inhalation	respiratory system	Causes damage to organs through prolonged or repeated exposure	similar compoun ds	NOAEL Not available	
Strontium chromate	Ingestion	kidney and/or bladder	May cause damage to organs though prolonged or repeated exposure	similar compoun ds	NOAEL Not available	
Formaldehyde, oligomeric reaction products with phenol	Inhalation	respiratory system	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	occupational exposure

Aspiration Hazard

For the component/components, either no data is currently available or the data is not sufficient for classification.

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 agree with the EU material classification in Section 2 and/or the ingredient classifications in Section 3 if specific ingredient classifications are mandated by a competent authority. In addition, statements and data presented in Section 12 are based on UN GHS calculation rules and classifications derived from 3M assessments.

12.1. Toxicity

No product test data available.

Material	CAS Nbr	Organism	Туре	Exposure	Test endpoint	Test result
Titanium	13463-67-7	Crustacea other	Experimental	96 hours	EC50	>300 mg/l
dioxide						
Titanium	13463-67-7	Sheepshead	Experimental	96 hours	LC50	>240 mg/l
dioxide		Minnow				
Titanium	13463-67-7	Water flea	Experimental	48 hours	EC50	>100 mg/l
dioxide						
Titanium	13463-67-7	Fish	Experimental	30 days	NOEC	>=1,000 mg/l
dioxide						
Titanium	13463-67-7	Water flea	Experimental	30 days	NOEC	3 mg/l
dioxide						

Calcium	471-34-1	Western	Experimental	96 hours	LC50	>100 mg/l
Carbonate		Mosquitofish				
Calcium Carbonate	471-34-1	Rainbow trout	Experimental	21 days	NOEC	>100 mg/l
Calcium Chromate	13765-19-0	Rainbow trout	Experimental	96 hours	LC50	3.4 mg/l
Calcium Chromate	13765-19-0	Water flea	Experimental	48 hours	EC50	0.02 mg/l
Strontium chromate	7789-06-2	Algae or other aquatic plants	Experimental	96 hours	EC50	0.002 mg/l
Strontium chromate	7789-06-2	Crustacea other	Experimental	48 hours	EC50	0.003 mg/l
Strontium chromate	7789-06-2	Fish other	Experimental	96 hours	LC50	0.02 mg/l
Fatty Acids, C14-18	67701-02-4		Data not available or insufficient for classification			
Propane, 1,2,3- trichloro-, polymer with 1,1'- [methylenebis(oxy)]bis[2- chloroethane] and sodium sulfide (Na2(Sx)), reduced	68611-50-7		Data not available or insufficient for classification			
Formaldehyde, oligomeric reaction products with phenol	9003-35-4		Data not available or insufficient for classification			

12.2. Persistence and degradability

Material	CAS Nbr	Test type	Duration	Study Type	Test result	Protocol
Fatty Acids, C14-18	67701-02-4	Estimated Photolysis		Photolytic half- life (in air)	1.43 days (t	Other methods
Calcium Chromate	13765-19-0	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Titanium dioxide	13463-67-7	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Formaldehyde, oligomeric reaction products with phenol	9003-35-4	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Calcium Carbonate	471-34-1	Data not available or	N/A	N/A	N/A	N/A

		insufficient for				
Strontium chromate	7789-06-2	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Propane, 1,2,3- trichloro-, polymer with 1,1'- [methylenebis(oxy)]bis[2- chloroethane] and sodium sulfide (Na2(Sx)), reduced	68611-50-7	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Fatty Acids, C14-18	67701-02-4	Estimated Biodegradation	28 days	BOD	37 % weight	Other methods
Fatty Acids, C14-18	67701-02-4	Data not available or insufficient for classification	N/A	N/A	N/A	N/A

12.3 : Bioaccumulative potential

Material	CAS Nbr	Test type	Duration	Study Type	Test result	Protocol
Calcium	471-34-1	Data not	N/A	N/A	N/A	N/A
Carbonate		available or				
		insufficient for				
		classification				
Propane, 1,2,3-	68611-50-7	Data not	N/A	N/A	N/A	N/A
trichloro-,		available or				
polymer with		insufficient for				
1,1'-		classification				
[methylenebis(
oxy)]bis[2-						
chloroethane]						
and sodium						
sulfide						
(Na2(Sx)),						
reduced						
Formaldehyde,	9003-35-4	Data not	N/A	N/A	N/A	N/A
oligomeric		available or				
reaction		insufficient for				
products with		classification				
phenol						
Strontium	7789-06-2	Experimental		Bioaccumulatio	610-3400	Other methods
chromate		BCF - Other		n factor		
Titanium	13463-67-7	Experimental	42 days	Bioaccumulatio	9.6	Other methods
dioxide		BCF - Other		n factor		
Calcium	13765-19-0	Experimental	40 days	Bioaccumulatio	2650	Other methods
Chromate		BCF - Other		n factor		
Fatty Acids,	67701-02-4	Estimated		Log Kow	7.17	Other methods
C14-18		Bioconcentrati				

		on				
Fatty Acids,	67701-02-4	Data not	N/A	N/A	N/A	N/A
C14-18		available or				
		insufficient for				
		classification				
Titanium	13463-67-7	Experimental	42 days	Bioaccumulatio	9.6	Other methods
dioxide		BCF-Carp	-	n factor		

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

See Section 11.1 Information on toxicological effects

Dispose of completely cured (or polymerised) material in a permitted industrial waste facility. As a disposal alternative, incinerate uncured product in a permitted waste incineration facility. Proper destruction may require the use of additional fuel during incineration processes. Combustion products will include halogen acid (HCl/HF/HBr). Facility must be capable of handling halogenated materials. If no other disposal options are available, waste product that has been completely cured or polymerised may be placed in a landfill properly designed for industrial waste. 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.

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)

08 04 09* Waste adhesives and sealants containing organic solvents or other dangerous substances

SECTION 14: Transportation information

ADR: UN3082; Environmentally Hazardous Substance, Liquid, N.O.S (Calcium Chromate and Strontium Chromate (VI)); 9; III; (--); M6.

IATA: UN3082; Environmentally Hazardous Substance, Liquid, N.O.S (Calcium Chromate and Strontium Chromate (VI)); 9; III.

IMDG: UN3082; Environmentally Hazardous Substance, Liquid, N.O.S (Calcium Chromate and Strontium Chromate (VI)); 9; III; EMS: FA, SF; Marine Pollutant: Calcium Chromate and Strontium Chromate.

SECTION 15: Regulatory information

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

Carcinogenicity

<u>Ingredient</u>	CAS Nbr	<u>Classification</u>	Regulation
Strontium chromate	7789-06-2	Carc. 1B	Regulation (EC) No.
			1272/2008, Table 3.1
Calcium Chromate	13765-19-0	Carc. 1B	Regulation (EC) No.
			1272/2008, Table 3.1
Titanium dioxide	13463-67-7	Grp. 2B: Possible human	International Agency
		carc.	for Research on Cancer

Global inventory status

All applicable chemical ingredients in this material are listed on the European Inventory of Existing Chemical Substances (EINECS), or are exempt polymers whose monomers are listed on EINECS. Contact 3M for more information. The components of this material are in compliance with the provisions of the Korea Chemical Control Act. Certain restrictions may apply. Contact the selling division for additional information. The components of this material are in compliance with the provisions of Australia National Industrial Chemical Notification and Assessment Scheme (NICNAS). Certain restrictions may apply. Contact the selling division for additional information. The components of this product are in compliance with the chemical notification requirements of TSCA.

15.2. Chemical Safety Assessment

Not applicable

SECTION 16: Other information

List of relevant H statements

H302	Harmful if swallowed.
H317	May cause an allergic skin reaction.
H330	Fatal if inhaled.
H335	May cause respiratory irritation.
H341	Suspected of causing genetic defects.
H350	May cause cancer.
H361df	Suspected of damaging fertility. Suspected of damaging the unborn child.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
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Revision information:

Section 2: Additional label requirements phrase information was deleted.

- Section 2: EU sensitizer phrase information was deleted.
- Section 2: Indication of danger information information was deleted.
- Label: Graphic Text information was deleted.
- Label: Graphic information was deleted.
- Section 2: Label ingredient information information was deleted.
- Section 2: Label remarks information was deleted.
- Section 2: R phrase reference information was deleted.
- Risk phrase information was deleted.
- Safety phrase information was deleted.
- Section 3: Composition/ Information of ingredients table information was added.
- Section 3: Composition/ Information of ingredients table information was deleted.
- Section 3: Reference to H statement explanation in Section 016 information was added.
- Section 3: Reference to R and H statement explanation in Section 16 information was deleted.
- Section 3: Reference to section 15 for Nota info information was deleted.
- Section 9: Density information information was added.
- Section 9: No Data Available Statement information was added.
- Section 9: Property description for optional properties information was deleted.

Section 11: Acute Toxicity table information was modified.

Section 11: Target Organs - Repeated Table information was modified.

Section 12: Component ecotoxicity information information was modified.

Section 12: Persistence and Degradability information information was modified.

Section 12:Bioccumulative potential information information was modified.

Section 15: Carcinogenicity information information was modified.

Section 15: Regulations - Inventories information was modified.

Section 16: List of relevant R phrase information information was deleted.

Section 16: List of relevant R-phrases information was deleted.

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.

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