

Main Group

SAFETY DATA SHEET FUSION

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

1.1. Product identifier

Product name FUSION

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

Identified uses Acrylic Rapid Bonding Liquid

1.3. Details of the supplier of the safety data sheet

Supplier MAIN CHEMICAL CO. LTD
P.O. Box 14
Heckmondwike
West Yorkshire
WF16 0XQ

Tel : +44 (0)1924 404006
Fax : +44 (0)1924 400999
Email : technical@mainchemicals.com

1.4. Emergency telephone number

Emergency telephone Tel : +44 (0) 1924 404006 (Office Hours)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical hazards Not Classified

Health hazards Carc. 2 - H351

Environmental hazards Not Classified

Classification (67/548/EEC or 1999/45/EC) Carc. Cat. 3;R40.

2.2. Label elements

Pictogram



Signal word Warning

Hazard statements H351 Suspected of causing cancer.

Precautionary statements P202 Do not handle until all safety precautions have been read and understood.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
P501 Dispose of contents/ container in accordance with national regulations.

Contains

FUSION

Contains DICHLOROMETHANE

Supplementary precautionary statements P201 Obtain special instructions before use.
P308+P313 IF exposed or concerned: Get medical advice/ attention.
P405 Store locked up.

2.3. Other hazards

Hazard id 2a

Hazard ID 2A

"Hazard ID 2A"

Hazard

SECTION 3: Composition/information on ingredients

3.2. Mixtures

DICHLOROMETHANE	60-100%
CAS number: 75-09-2	EC number: 200-838-9

Classification Carc. 2 - H351	Classification (67/548/EEC or 1999/45/EC) Carc. Cat. 3;R40
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HYDROCARBONS	<10%
CAS number: 64742-82-1	EC number: 919-446-0

Classification Flam. Liq. 3 - H226 STOT SE 1 - H370 STOT SE 2 - H371 STOT SE 3 - H336 Asp. Tox. 1 - H304 Aquatic Chronic 2 - H411	Classification (67/548/EEC or 1999/45/EC) Xn;R65. N;R51/53. R10,R66,R67.
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The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

Ingredient notes MIXTURE OF SUBSTANCES LISTED ABOVE WITH NON-HAZARDOUS ADDITIONS.

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation	Move affected person to fresh air at once. For breathing difficulties, oxygen may be necessary. Keep affected person warm and at rest. Get medical attention immediately.
Ingestion	Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Rinse mouth thoroughly with water. Give plenty of water to drink. DO NOT induce vomiting. Get medical attention immediately.
Skin contact	Remove contaminated clothing immediately and wash skin with soap and water. Get medical attention if any discomfort continues.
Eye contact	Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. Get medical attention immediately. Continue to rinse.

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

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Inhalation	Irritation of nose, throat and airway. Vapours in high concentrations are anaesthetic. Symptoms following overexposure may include the following: Headache. Fatigue. Dizziness. Central nervous system depression. Inhalation of vapour or mist may cause lung oedema.
Ingestion	Central nervous system depression. May cause irritation. Symptoms following overexposure may include the following: Stomach pain. Nausea, vomiting. Diarrhoea.
Skin contact	Skin irritation. Prolonged contact may cause redness, irritation and dry skin.
Eye contact	Irritation of eyes and mucous membranes. May cause severe eye irritation.

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

Notes for the doctor	Symptomatic treatment. Adrenaline and similar sympathomimetic drugs should be avoided following exposure as cardiac arrhythmia may result with possible subsequent cardiac arrest. Gastric lavage may be effective when performed within 4 hours of ingestion.
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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog.

5.2. Special hazards arising from the substance or mixture

Specific hazards Hydrogen chloride (HCl). Phosgene (COCl₂). Oxides of the following substances: Carbon. Vapours are heavier than air and may spread near ground and travel a considerable distance to a source of ignition and flash back.

Hazardous combustion products Oxides of carbon. Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.

5.3. Advice for firefighters

Protective actions during firefighting Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Contain and collect extinguishing water.

Special protective equipment for firefighters Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Follow precautions for safe handling described in this safety data sheet. Avoid inhalation of spray mist and contact with skin and eyes. Provide adequate ventilation.

6.2. Environmental precautions

Environmental precautions Spillages or uncontrolled discharges into watercourses must be reported immediately to the Environmental Agency or other appropriate regulatory body.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up Absorb spillage with inert, damp, non-combustible material. Flush contaminated area with plenty of water. Collect and place in suitable waste disposal containers and seal securely. For waste disposal, see Section 13.

6.4. Reference to other sections

Reference to other sections Wear protective clothing as described in Section 8 of this safety data sheet.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

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Usage precautions Avoid spilling. Avoid contact with skin and eyes. Avoid inhalation of vapours and spray/mists. Provide adequate ventilation. Vapours may accumulate on the floor and in low-lying areas. Do not use in confined spaces without adequate ventilation and/or respirator. Avoid heat, flames and other sources of ignition. Storage tanks and other containers must be earthed.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions Keep away from heat, sparks and open flame. Unsuitable containers: copper, zinc, aluminium, copper alloy, zinc alloy, aluminium alloy. Store in tightly-closed, original container in a dry, cool and well-ventilated place.

7.3. Specific end use(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.2.

SECTION 8: Exposure controls/Personal protection

8.1. Control parameters

Occupational exposure limits

Sk

DICHLOROMETHANE

Long-term exposure limit (8-hour TWA): WEL 100 ppm 350 mg/m³

Short-term exposure limit (15-minute): WEL 300 ppm 1060 mg/m³

Sk

HYDROCARBONS

Long-term exposure limit (8-hour TWA): SUP 1200 mg/m³

WEL = Workplace Exposure Limit

Sk = Can be absorbed through skin.

DICHLOROMETHANE (CAS: 75-09-2)

DNEL

Industry - Inhalation; Short term local effects: 706 mg/m³
 Industry - Dermal; Long term local effects: 4750 mg/kg/day
 Industry - Inhalation; Long term local effects: 353 mg/m³
 Consumer - Inhalation; Short term local effects: 353 mg/m³
 Consumer - Dermal; Long term local effects: 2395 mg/kg/day
 Consumer - Dermal; Long term local effects: 88.3 mg/m³
 Consumer - Oral; Long term local effects: 0.06 mg/kg/day
 Consumer - Oral; Short term local effects: 0.06 mg/kg/day
 Consumer - Inhalation; Short term systemic effects: 353 mg/m³

PNEC

- Fresh water; 0.54 mg/l
 - marine water; 0.194 mg/l
 - Sediment (Freshwater); 0.972 mg/kg
 - Soil; 0.583 mg/kg
 7-8 - STP; 26 mg/l
 - Sediment (Marinewater); 0.349 mg/kg
 - Intermittent release; 26 mg/l

HYDROCARBONS (CAS: 64742-82-1)

FUSION

DNEL

Industry - Dermal; Long term : 44 mg/kg/day
 Industry - Inhalation; Long term : 330 mg/m³
 Consumer - Dermal; Long term : 26 mg/kg/day
 Consumer - Inhalation; Long term : 71 mg/m³
 Consumer - Oral; Long term : 26 mg/kg/day

8.2. Exposure controls

Protective equipment



Appropriate engineering controls

Provide adequate ventilation. Avoid inhalation of vapours. Observe any occupational exposure limits for the product or ingredients.

Eye/face protection

Wear tight-fitting, chemical splash goggles or face shield.

Hand protection

It is recommended that gloves are made of the following material: Nitrile rubber. Polyvinyl alcohol (PVA). Viton rubber (fluoro rubber). The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material.

Other skin and body protection

Wear rubber apron. Wear rubber footwear.

Hygiene measures

Provide eyewash station and safety shower. Wash contaminated clothing before reuse. Promptly remove any clothing that becomes contaminated. Wash promptly if skin becomes contaminated. Use appropriate skin cream to prevent drying of skin. Eating, smoking and water fountains prohibited in immediate work area.

Respiratory protection

If ventilation is inadequate, suitable respiratory protection must be worn. Wear a respirator fitted with the following cartridge: Gas filter, type AX.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Liquid.
Colour	Clear liquid.
Odour	Characteristic. Ether.
Odour threshold	200 - 250
Melting point	-95°C
Initial boiling point and range	39.8°C
Flash point	Not applicable.
Upper/lower flammability or explosive limits	Lower flammable/explosive limit: 14 Upper flammable/explosive limit: 22
Vapour density	2.9
Relative density	1.3250 @ 25°C
Solubility(ies)	1.3 @ 20°C
Partition coefficient	log Pow: 1.25 @ 20°C
Auto-ignition temperature	556°C

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Viscosity 0.41 mPas

9.2. Other information

Other information Not determined.

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity The following materials may react with the product: Strong alkalis. Oxidising materials. Forms a detonable mixture with Nitric acid. In contact with some metals can generate hydrogen gas, which can form explosive mixtures with air.

10.2. Chemical stability

Stability Stable at normal ambient temperatures and when used as recommended.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions Forms a detonable mixture with Nitric acid. Will not polymerise.

10.4. Conditions to avoid

Conditions to avoid Avoid heat, flames and other sources of ignition.

10.5. Incompatible materials

Materials to avoid Strong alkalis. Strong oxidising agents. Amines. Water, steam, water mixtures. Zinc. Aluminium. Magnesium. Potassium. Sodium.

10.6. Hazardous decomposition products

Hazardous decomposition products Hydrogen chloride (HCl). Phosgene (COCl₂). Oxides of the following substances: Carbon monoxide (CO). Chlorine.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Inhalation Irritating to respiratory system. Vapours irritate the respiratory system. May cause coughing and difficulties in breathing. May cause damage to mucous membranes in nose, throat, lungs and bronchial system. Vapours in high concentrations are narcotic. Symptoms following overexposure may include the following: Headache. Fatigue. Dizziness. Nausea, vomiting.

Ingestion Liquid irritates mucous membranes and may cause abdominal pain if swallowed.

Skin contact Prolonged contact may cause redness, irritation and dry skin. Irritating to skin.

Eye contact A single exposure may cause the following adverse effects: Corneal damage. Irritation of eyes and mucous membranes.

Acute and chronic health hazards Known or suspected carcinogen for humans.

Target organs Eyes Skin Respiratory system, lungs Heart & cardiovascular system Kidneys Liver Central nervous system

SECTION 12: Ecological information

Ecotoxicity The product components are not classified as environmentally hazardous. However, large or frequent spills may have hazardous effects on the environment.

12.1. Toxicity

FUSION

12.2. Persistence and degradability

Persistence and degradability The product is slowly degradable.

Biodegradation - Degradation (%) 66: 50 hours
Water - DT₅₀ : 14.2 days

12.3. Bioaccumulative potential

Bioaccumulative potential BCF: < 0.91 - 40,

Partition coefficient log Pow: 1.25 @ 20°C

12.4. Mobility in soil

Mobility The product is miscible with water and may spread in water systems.

Henry's law constant 0.0398 Pa m³/mol @ °C

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment This substance is not classified as PBT or vPvB according to current EU criteria.

12.6. Other adverse effects

Other adverse effects Not determined.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information Do not puncture or incinerate, even when empty. Waste is classified as hazardous waste. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority. Empty Container Warning (where applicable): Empty containers may retain residue and can be dangerous. DO NOT PRESSURISE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND OR EXPOSURE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION; THEY MAY EXPLODE AND CAUSE INJURY OR DEATH.

Disposal methods Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

SECTION 14: Transport information

14.1. UN number

UN No. (ADR/RID) 1593

UN No. (IMDG) 1593

UN No. (ICAO) 1593

UN No. (ADN) 1593

14.2. UN proper shipping name

Proper shipping name (ADR/RID) DICHLOROMETHANE

Proper shipping name (IMDG) DICHLOROMETHANE

Proper shipping name (ICAO) DICHLOROMETHANE

Proper shipping name (ADN) DICHLOROMETHANE

14.3. Transport hazard class(es)

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ADR/RID class	6.1
ADR/RID classification code	T1
ADR/RID label	6.1
IMDG class	6.1
ICAO class/division	6.1
ADN class	6.1

Transport labels



14.4. Packing group

ADR/RID packing group	III
IMDG packing group	III
ICAO packing group	III
ADN packing group	III

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant

No.

14.6. Special precautions for user

EmS	F-A, S-A
ADR transport category	2
Emergency Action Code	2Z
Hazard Identification Number (ADR/RID)	60
Tunnel restriction code	(E)

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

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

Annex II of MARPOL 73/78 and the IBC Code

SECTION 15: Regulatory information

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

EU legislation Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended).

15.2. Chemical safety assessment

A chemical safety assessment has been carried out.

SECTION 16: Other information

FUSION

General information	Quality Assurance: Main Chemical Co Ltd, Conforms to ISO 9001 : 2015 Cert No. 14130770 Environmental Standard: Main Chemical Co Ltd, Conforms to ISO 14001 : 2015 Cert No. 14124143
Revision date	23/05/2014
Revision	07/01/2016
Supersedes date	29/11/2018
SDS number	10368
Risk phrases in full	R10 Flammable. R40 Limited evidence of a carcinogenic effect. R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. R65 Harmful: may cause lung damage if swallowed. R66 Repeated exposure may cause skin dryness or cracking. R67 Vapours may cause drowsiness and dizziness.
Hazard statements in full	H226 Flammable liquid and vapour. H304 May be fatal if swallowed and enters airways. H336 May cause drowsiness or dizziness. H351 Suspected of causing cancer. H370 Causes damage to organs . H411 Toxic to aquatic life with long lasting effects.

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use. Uses Advised Against: The product should not be used for any other purpose other than its intended use. Handling, storage and conditions to avoid instructions must be followed at all times.