



SAFETY DATA SHEET MICROSEAL T20

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

1.1. Product identifier

Product name MICROSEAL T20

Product number 8225

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

Identified uses Solvent for Industrial Use

1.3. Details of the supplier of the safety data sheet

Supplier Samuel Banner & Co Ltd
Hampton Court
Manor Park
Runcorn
Cheshire
WA7 1TU, UK
+44 (0)1928 597 000 (General Enquiries)
+44 (0)1928 597 001 (Fax)

Contact person sdsadmin@bannerchemicals.com

1.4. Emergency telephone number

Emergency telephone 0207 405 5375 (National Chemical Emergency Centre) 0870 190 6777 (National Chemical Emergency Centre) +44 (0)1270 502891

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

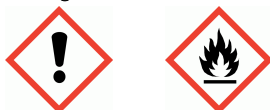
Physical hazards Flam. Liq. 2 - H225

Health hazards Acute Tox. 4 - H302 Skin Irrit. 2 - H315 Eye Dam. 1 - H318 STOT SE 3 - H336

Environmental hazards Not Classified

2.2. Label elements

Pictogram



Signal word Danger

Hazard statements
H225 Highly flammable liquid and vapour.
H302 Harmful if swallowed.
H315 Causes skin irritation.
H318 Causes serious eye damage.
H336 May cause drowsiness or dizziness.

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Precautionary statements

P243 Take precautionary measures against static discharge.
 P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P313 Get medical advice/ attention.
 P403+P235 Store in a well-ventilated place. Keep cool.
 The material and container must be disposed of as hazardous waste.

Supplemental label information

EUH066 Repeated exposure may cause skin dryness or cracking.

Contains

Acetone, CYCLOHEXANONE

2.3. Other hazards

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Acetone			60-100%
CAS number: 67-64-1	EC number: 200-662-2	REACH registration number: 01-2119471330-49-xxxx	

Classification	
Flam. Liq. 2 - H225	
Eye Irrit. 2 - H319	
STOT SE 3 - H336	

CYCLOHEXANONE			30-60%
CAS number: 108-94-1	EC number: 203-631-1	REACH registration number: 01-2119453616-35-xxxx	

Classification	
Flam. Liq. 3 - H226	
Acute Tox. 4 - H302	
Acute Tox. 4 - H312	
Acute Tox. 4 - H332	
Skin Irrit. 2 - H315	
Eye Dam. 1 - H318	

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation

Move affected person to fresh air at once. Get medical attention if any discomfort continues.

Ingestion

Rinse mouth thoroughly with water. Get medical attention if any discomfort continues.

Skin contact

Remove contaminated clothing and rinse skin thoroughly with water. Get medical attention if any discomfort continues.

Eye contact

Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes and get medical attention.

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

General information

No additional symptoms or effects are anticipated.

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

Notes for the doctor Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

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

Unsuitable extinguishing media Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising from the substance or mixture

Specific hazards The product is flammable. Heating may generate flammable vapours.

Hazardous combustion products Thermal decomposition or combustion products may include the following substances: Oxides of carbon.

5.3. Advice for firefighters

Protective actions during firefighting Avoid breathing fire gases or vapours. Cool containers exposed to flames with water until well after the fire is out.

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 Wear protective clothing as described in Section 8 of this safety data sheet. No smoking, sparks, flames or other sources of ignition near spillage. Do not breathe vapour. Avoid contact with skin and eyes.

6.2. Environmental precautions

Environmental precautions Do not discharge into drains or watercourses or onto the ground. Contain spillage with sand, earth or other suitable non-combustible material.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up Eliminate all sources of ignition. No smoking, sparks, flames or other sources of ignition near spillage. Provide adequate ventilation. Absorb in vermiculite, dry sand or earth and place into containers. Collect and place in suitable waste disposal containers and seal securely.

6.4. Reference to other sections

Reference to other sections For personal protection, see Section 8. For waste disposal, see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions Keep away from heat, sparks and open flame. Provide adequate ventilation. Avoid inhalation of vapours/spray and contact with skin and eyes.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions Keep away from heat, sparks and open flame. Store in tightly-closed, original container in a dry, cool and well-ventilated place.

Storage class Flammable liquid storage.

7.3. Specific end use(s)

SECTION 8: Exposure Controls/personal protection

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8.1. Control parameters

Occupational exposure limits

Acetone

Long-term exposure limit (8-hour TWA): WEL 500 ppm 1210 mg/m³

Short-term exposure limit (15-minute): WEL 1500 ppm 3620 mg/m³

CYCLOHEXANONE

Long-term exposure limit (8-hour TWA): WEL 10 ppm 41 mg/m³

Short-term exposure limit (15-minute): WEL 20 ppm 82 mg/m³

Sk

WEL = Workplace Exposure Limit

Sk = Can be absorbed through the skin.

Acetone (CAS: 67-64-1)

DNEL	Industry - Dermal; Long term : 186 mg/kg/day Industry - Inhalation; Short term : 2420 mg/m ³ Industry - Inhalation; Long term : 1210 mg/m ³ Consumer - Oral; Long term : 62 mg/kg/day Consumer - Dermal; Long term : 62 mg/kg/day Consumer - Inhalation; Long term : 200 mg/m ³
PNEC	- Fresh water; 10.6 mg/l - Marine water; 1.06 mg/l - Sediment; 30.4 mg/kg - Sediment; 3.04 mg/kg - Soil; 0.112 mg/kg - STP; 29.5 mg/l

CYCLOHEXANONE (CAS: 108-94-1)

Ingredient comments	WEL = Workplace Exposure Limits
DNEL	Industry - Dermal; Short term : 100 mg/kg/day Industry - Inhalation; Short term : 100 mg/m ³ Industry - Dermal; Long term : 10 mg/kg/day Industry - Inhalation; Long term : 80 mg/m ³ Consumer - Dermal; Short term : 30 mg/kg/day Consumer - Inhalation; Short term : 50 mg/m ³ Consumer - Oral; Short term : 10 mg/kg/day Consumer - Dermal; Long term : 20 mg/kg/day Consumer - Inhalation; Long term : 20 mg/m ³
PNEC	- Fresh water; 0.0329 mg/l - Marine water; 0.00329 mg/l - STP; 10 mg/l - Sediment; Freshwater 0.0951 mg/kg - Soil; 0.0143 mg/kg

8.2. Exposure controls

Protective equipment



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Appropriate engineering controls	Provide adequate general and local exhaust ventilation. Observe any occupational exposure limits for the product or ingredients.
Eye/face protection	Wear chemical splash goggles. Personal protective equipment for eye and face protection should comply with European Standard EN166.
Hand protection	It is recommended that chemical-resistant, impervious gloves are worn. To protect hands from chemicals, gloves should comply with European Standard EN374. It should be noted that liquid may penetrate the gloves. Frequent changes are recommended.
Hygiene measures	Provide eyewash station and safety shower. Use engineering controls to reduce air contamination to permissible exposure level. Wash at the end of each work shift and before eating, smoking and using the toilet. Wash promptly if skin becomes contaminated. When using do not eat, drink or smoke.
Respiratory protection	If ventilation is inadequate, suitable respiratory protection must be worn. Check that the respirator fits tightly and the filter is changed regularly.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Appearance	Liquid.
Colour	Water-white.
Odour	Pungent. Irritating.
Initial boiling point and range	56°C
Flash point	-18°C
Relative density	0.879 @ 20°C
Auto-ignition temperature	430°C

9.2. Other information

SECTION 10: Stability and reactivity

10.1. Reactivity

10.2. Chemical stability

Stability	Stable at normal ambient temperatures.
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10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	No potentially hazardous reactions known.
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10.4. Conditions to avoid

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

Materials to avoid	Strong oxidising agents. Acids
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10.6. Hazardous decomposition products

Hazardous decomposition products	Thermal decomposition or combustion products may include the following substances: Oxides of carbon.
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SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity - oral

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ATE oral (mg/kg) 1,612.9

Acute toxicity - dermal

ATE dermal (mg/kg) 3,548.39

Acute toxicity - inhalation

ATE inhalation (vapours mg/l) 35.48

Inhalation Harmful by inhalation.

Ingestion Swallowing concentrated chemical may cause severe internal injury.

Skin contact Prolonged or repeated exposure may cause severe irritation. Product has a defatting effect on skin. May cause allergic contact eczema.

Eye contact Irritating to eyes.

Target organs Respiratory system, lungs Eyes Skin

Toxicological information on ingredients.

Acetone

Toxicological effects Low order of acute toxicity. Oral rat LD50:1700-10700mg/kg. A single application to the rabbit eye produced conjunctival irritation and transient corneal damage (stippling epithelial damage): A single 4h semi occlusive application to intact rabbit skin produced no sign of dermal irritation. The product did not exhibit mutagenic activity (with and without metabolic activation) in: Salmonella typhimurium. Chinese hamster ovary cells and human lymphocytes. Negative results were achieved during studies designed to investigate the potential to induce birth defects by inhalation.

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ mg/kg) 15,800.0

Species Rat

Skin corrosion/irritation

Animal data Irritating.

Serious eye damage/irritation

Serious eye damage/irritation Moderately irritating.

Germ cell mutagenicity

Genotoxicity - in vitro : Negative.

Inhalation Vapours may cause drowsiness and dizziness.

Skin contact Repeated exposure may cause skin dryness or cracking.

Eye contact Irritating to eyes. May cause chemical eye burns.

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Acute and chronic health hazards	Gas or vapour is harmful on prolonged exposure or in high concentrations. Symptoms following overexposure may include the following: Irritation of eyes and mucous membranes. Narcotic effect. A single exposure may cause the following adverse effects: Central nervous system depression. Prolonged contact may cause dryness of the skin. Repeated exposure may cause chronic eye irritation.
Route of entry	Inhalation Skin absorption
Target organs	Central nervous system Eyes Gastro-intestinal tract Respiratory system, lungs Skin
Medical symptoms	Irritation of eyes and mucous membranes. Upper respiratory irritation. Skin irritation.
Medical considerations	Skin disorders and allergies.

CYCLOHEXANONE

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 1,620.0

Species Rat

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ mg/kg) 1,100.0

Species Rabbit

Acute toxicity - inhalation

Acute toxicity inhalation (LC₅₀ vapours mg/l) 11.0

Species Rat

ATE inhalation (vapours mg/l) 11.0

Skin sensitisation

Skin sensitisation Not sensitising.

Germ cell mutagenicity

Genotoxicity - in vitro : Not mutagenic.

Carcinogenicity

Carcinogenicity Highly unlikely to be carcinogenic and are not classifiable as carcinogens.

IARC carcinogenicity IARC Group 3 Not classifiable as to its carcinogenicity to humans.

General information

Prolonged and repeated contact with solvents over a long period may lead to permanent health problems. Extensive use of the product in areas with inadequate ventilation may result in the accumulation of hazardous vapour concentrations.

Inhalation

Aspiration hazard if swallowed. Entry into the lungs following ingestion or vomiting may cause chemical pneumonitis. The product contains organic solvents. Overexposure may depress the central nervous system, causing dizziness and intoxication. Harmful by inhalation.

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Ingestion	Harmful: may cause lung damage if swallowed. Pneumonia may be the result if vomited material containing solvents reaches the lungs.
Skin contact	Repeated exposure may cause skin dryness or cracking.
Eye contact	Irritation of eyes and mucous membranes.
Acute and chronic health hazards	Prolonged contact may cause dryness of the skin. Prolonged and repeated contact with solvents over a long period may lead to permanent health problems. Prolonged or repeated exposure to vapours in high concentrations may cause the following adverse effects: Central and/or peripheral nervous system damage. Brain damage.
Route of entry	Ingestion. Inhalation
Target organs	Brain Respiratory system, lungs Mucous membranes
Medical symptoms	Skin irritation. Irritation of eyes and mucous membranes. Gas or vapour in high concentrations may irritate the respiratory system. Symptoms following overexposure may include the following: Headache. Fatigue. Nausea, vomiting.
Medical considerations	Skin disorders and allergies. Convulsions. Central nervous system depression. Aspiration hazard if swallowed. Entry into the lungs following ingestion or vomiting may cause chemical pneumonitis.

SECTION 12: Ecological Information

Ecotoxicity Not regarded as dangerous for the environment.

Ecological information on ingredients.

CYCLOHEXANONE

Ecotoxicity Not regarded as dangerous for the environment.

12.1. Toxicity

Toxicity Not considered toxic to fish.

Ecological information on ingredients.

Acetone

Acute toxicity - fish LC50, 96 hours: 5540 mg/l, Onchorhynchus mykiss (Rainbow trout)

LC50, 96 hours: >5500 mg/l, Algae

Acute toxicity - aquatic invertebrates EC50, 48 hours: 8800 mg/l, Daphnia magna

CYCLOHEXANONE

Acute toxicity - fish LC50, 96 hours: ~ 500 mg/l, Pimephales promelas (Fat-head Minnow)

12.2. Persistence and degradability

Persistence and degradability The product is expected to be biodegradable.

Ecological information on ingredients.

Acetone

Persistence and degradability Readily biodegradable.

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CYCLOHEXANONE

Persistence and degradability

There are no data on the degradability of this product.

12.3. Bioaccumulative potential

Bioaccumulative potential The product has low potential for bioaccumulation.

Ecological information on ingredients.

Acetone

Bioaccumulative potential The product is not bioaccumulating. BCF: 3,

Partition coefficient : -0.24

CYCLOHEXANONE

Bioaccumulative potential No data available on bioaccumulation.

Partition coefficient : 0.86

12.4. Mobility in soil

Ecological information on ingredients.

Acetone

Adsorption/desorption coefficient Water - : 1.5 @ 20°C

Henry's law constant 2929 Pa m³/mol @ 25°C

CYCLOHEXANONE

Adsorption/desorption coefficient Not available.

12.5. Results of PBT and vPvB assessment

Ecological information on ingredients.

Acetone

Results of PBT and vPvB assessment This product does not contain any substances classified as PBT or vPvB.

CYCLOHEXANONE

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

Ecological information on ingredients.

Acetone

Other adverse effects No known significant effects.

CYCLOHEXANONE

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Other adverse effects Not determined.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal methods Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority. Confirm disposal procedures with environmental engineer and local regulations. Do not allow runoff to sewer, waterway or ground.

SECTION 14: Transport information

14.1. UN number

UN No. (ADR/RID) 1993

UN No. (IMDG) 1993

UN No. (ICAO) 1993

UN No. (ADN) 1993

14.2. UN proper shipping name

Proper shipping name (ADR/RID) FLAMMABLE LIQUID, N.O.S. (CYCLOHEXANONE)

Proper shipping name (IMDG) FLAMMABLE LIQUID, N.O.S.

Proper shipping name (ICAO) FLAMMABLE LIQUID, N.O.S.

Proper shipping name (ADN) FLAMMABLE LIQUID, N.O.S.

14.3. Transport hazard class(es)

ADR/RID class 3

ADR/RID classification code F1

ADR/RID label 3

IMDG class 3

ICAO class/division 3

ADN class 3

Transport labels



14.4. Packing group

ADR/RID packing group II

IMDG packing group II

ICAO packing group II

ADN packing group II

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant

No.

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14.6. Special precautions for user

EmS	F-E, S-E
ADR transport category	2
Emergency Action Code	•3YE
Hazard Identification Number (ADR/RID)	33
Tunnel restriction code	(D/E)

14.7. Transport in bulk according to Annex II of MARPOL 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 1272/2008 CLP. Regulation (EC) No 1907/2006 REACH.
Guidance	Workplace Exposure Limits EH40.

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information

General information	Only trained personnel should use this material. Since empty containers retain product residue, follow label warnings, even after container is emptied. For further Health and Safety information contact: Health and Safety Officer. Labels should not be removed from containers until they have been cleaned and no product remains within.
Revision comments	This SDS has been produced on new software and may appear different in presentation and style. Please check all sections carefully.
Issued by	Compliance Department
Revision date	03/08/2017
Revision	2
Supersedes date	16/07/2013
SDS number	8225
SDS status	Approved.
Hazard statements in full	H225 Highly flammable liquid and vapour. H226 Flammable liquid and vapour. H302 Harmful if swallowed. H312 Harmful in contact with skin. H315 Causes skin irritation. H318 Causes serious eye damage. H319 Causes serious eye irritation. H332 Harmful if inhaled. H336 May cause drowsiness or dizziness.

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.