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

1.1 Product identifier

Trade name : PureCast T10 Fast Hardener (B)

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

Product use : Tooling system, Product is not intended for consumer use

1.3 Details of the supplier of the safety data sheet

| Company name of supplier | : | CFSNET Ltd |
|--------------------------|---|------------------------------------|
| | | United Downs Industrial Park |
| | | St Day, Redruth, Cornwall TR16 5HY |
| Telephone | : | +44 (0)1209 821028 |
| E-mail address of person | : | sales@cfsnet.co.uk |
| responsible for the SDS | | |

1.4 Emergency telephone number

+44 (0)1209 821028

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Acute toxicity, Category 4 Skin corrosion, Sub-category 1B Serious eye damage, Category 1 Skin sensitisation, Category 1 Long-term (chronic) aquatic hazard, Category 2 H302: Harmful if swallowed. H314: Causes severe skin burns and eye damage. H318: Causes serious eye damage. H317: May cause an allergic skin reaction.

- H317: May cause an allergic skin reaction.
- H411: Toxic to aquatic life with long lasting effects.

2.2 Label elements

| Labelling (REGULATION (EC) No 1272/2008) | | | | |
|--|---|------------------------------|---|--|
| Hazard pictograms | : | | | |
| Signal word | | Danger | • | |
| Hazard statements | : | H302 H314 H317 H411 | Harmful if swallowed. Causes severe skin burns and eye damage. May cause an allergic skin reaction. Toxic to aquatic life with long lasting effects. | |
| Precautionary statements | : | Prevention: | | |



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|--|------------|--|---|--|
| | P273 | Avoid release to the e | nvironment. | |
| | P280 | Wear protective gloves eye protection/ face pr | | |
| | Response | : | | |
| | P303 + P3 | 61 + P353 IF ON SKIN (or ately all contaminated with water. | , | |
| | P304 + P34 | 40 + P310 IF INHALED: Re air and keep comfortal mediately call a POIS0 | ble for breathing. Im- | |
| | P305 + P3 | 51 + P338 + P310 IF IN EY | /ES: Rinse cautiously minutes. Remove con- and easy to do. Con- | |
| | P391 | Collect spillage. | | |

Hazardous components which must be listed on the label:

Polyoxypropylentriamine 3-aminomethyl-3,5,5-trimethylcyclohexylamine Adduct IA (epoxy amine adduct)

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Components

| Chemical name | CAS-No. | Classification | Concentration |
|--------------------------|---------------------|---------------------|---------------|
| | EC-No. | | (% w/w) |
| | Registration number | | |
| Polyoxypropylentriamine | 39423-51-3 | Acute Tox. 4; H302 | >= 25 - < 40 |
| | 500-105-6 | Acute Tox. 4; H312 | |
| | 01-2119556886-20- | Eye Dam. 1; H318 | |
| | XXXX | Aquatic Chronic 2; | |
| | | H411 | |
| 3-aminomethyl-3,5,5- | 2855-13-2 | Acute Tox. 4; H302 | >= 25 - < 40 |
| trimethylcyclohexylamine | 220-666-8 | Acute Tox. 4; H312 | |
| | 01-2119514687-32- | Skin Corr. 1B; H314 | |
| | XXXX | Skin Sens. 1A; H317 | |
| | | Aquatic Chronic 3; | |
| | | H412 | |
| | | Eye Dam. 1; H318 | |



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| Adduct IA (epoxy amine adduct) | 68609-08-5 614-657-1 01-2120106013-80- XXXX | Acute Tox. 4; H302 Skin Sens. 1; H317 Aquatic Chronic 2; H411 | >= 5 - < 10 |
|--------------------------------|--|--|-------------|
| | , | 11411 | |

For explanation of abbreviations see section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

| General advice | : | Move out of dangerous area. Consult a physician. Show this safety data sheet to the doctor in attendance. |
|-----------------------|---------------|---|
| If inhaled | : | Move to fresh air. Consult a physician after significant exposure. |
| In case of skin co | ntact : | Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Immediate medical treatment is necessary as untreated wounds from corrosion of the skin heal slowly and with difficul- ty. |
| In case of eye cor | ntact : | Small amounts splashed into eyes can cause irreversible tis- sue damage and blindness. In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Continue rinsing eyes during transport to hospital. Remove contact lenses. Keep eye wide open while rinsing. |
| If swallowed | : | Do not induce vomiting without medical advice. Rinse mouth with water. Do not give milk or alcoholic beverages. Never give anything by mouth to an unconscious person. |
| 4.2 Most important sy | /mptoms and e | effects, both acute and delayed |
| Symptoms | : | Gastrointestinal discomfort Allergic reactions Dermatitis See Section 11 for more detailed information on health effects and symptoms. |
| Risks | : | Health injuries may be delayed. corrosive effects sensitising effects |
| | | Harmful if swallowed. May cause an allergic skin reaction. Causes serious eye damage. Causes severe burns. |



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4.3 Indication of any immediate medical attention and special treatment needed

Treatment : Treat symptomatically.

SECTION 5: Firefighting measures

| 5.1 | Extinguishing media | | |
|-----|---|---|--|
| | Suitable extinguishing media : | In case of fire, use water/water spray/water jet/carbon diox- ide/sand/foam/alcohol resistant foam/chemical powder for extinction. | |
| 5.2 | Special hazards arising from the | e substance or mixture | |
| | Specific hazards during fire- : fighting | Do not allow run-off from fire fighting to enter drains or water courses. | |
| | Hazardous combustion prod- : ucts | No hazardous combustion products are known | |
| 5.3 | Advice for firefighters | | |
| | Special protective equipment : for firefighters | In the event of fire, wear self-contained breathing apparatus. | |
| | Further information : | Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. | |

SECTION 6: Accidental release measures

| 6.1 Personal precautions, protect Personal precautions | tive equipment and emergency procedures Use personal protective equipment. Deny access to unprotected persons. | | |
|--|--|--|--|
| 6.2 Environmental precautions | | | |
| Environmental precautions | : Do not flush into surface water or sanitary sewer system. If the product contaminates rivers and lakes or drains inform respective authorities. | | |
| 6.3 Methods and material for containment and cleaning up | | | |
| Methods for cleaning up | : Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Keep in suitable, closed containers for disposal. | | |

6.4 Reference to other sections

For personal protection see section 8.



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SECTION 7: Handling and storage

| 7.1 Precautions for safe handling | |
|--|--|
| Advice on safe handling : | Avoid exceeding the given occupational exposure limits (see section 8). Do not get in eyes, on skin, or on clothing. For personal protection see section 8. Persons with a history of skin sensitisation problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used. Smoking, eating and drinking should be prohibited in the application area. Follow standard hygiene measures when handling chemical products |
| Advice on protection against : fire and explosion | Normal measures for preventive fire protection. |
| Hygiene measures : | Handle in accordance with good industrial hygiene and safety practice. When using do not eat or drink. When using do not smoke. Wash hands before breaks and at the end of workday. |
| 7.2 Conditions for safe storage, in | cluding any incompatibilities |
| Requirements for storage : areas and containers | Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully re- sealed and kept upright to prevent leakage. Store in accord- ance with local regulations. |
| Further information on stor- : age stability | No decomposition if stored and applied as directed. |
| 7.3 Specific end use(s) | |

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Contains no substances with occupational exposure limit values.

8.2 Exposure controls

| Personal protective equ | uipment |
|-------------------------|--|
| Eye protection | Safety glasses with side-shields conforming to EN166 Eye wash bottle with pure water Wear eye/face protection. |
| Hand protection | : Chemical-resistant, impervious gloves complying with an ap- proved standard must be worn at all times when handling chemical products. Reference number EN 374. Follow manu- facturer specifications. |
| | Suitable for short time use or protection against splashes: |



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| | Butyl rubber/nitrile rubber gloves (> 0 Contaminated gloves should be remo Suitable for permanent exposure: Viton gloves (0.4 mm), breakthrough time >30 min. | |
| Skin and body protection | Protective clothing (e.g. Safety shoes long-sleeved working clothing, long tra and protective boots are additionally ra and stirring work. No special measures required. | ousers). Rubber aprons |
| Respiratory protection | | |
| Environmental exposure c | ontrois | |
| General advice | : Do not flush into surface water or san If the product contaminates rivers and respective authorities. | |

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

| information on basic physical and chemical properties | | | | | |
|---|-------------|--------------------------------|--|--|--|
| Physical state Colour Odour | : : : | liquid amber amine-like | | | |
| Odour Threshold | : | No data available | | | |
| рН | : | Not applicable | | | |
| Melting point/range / Freezing point | : | No data available | | | |
| Boiling point/boiling range | : | No data available | | | |
| Flash point | : | > 100 °C Method: closed cup | | | |
| Evaporation rate | : | No data available | | | |
| Flammability (solid, gas) | : | No data available | | | |
| Upper explosion limit / Upper flammability limit | : | No data available | | | |
| Lower explosion limit / Lower flammability limit | : | No data available | | | |
| Vapour pressure | : | 0,02 hPa | | | |
| Relative vapour density | : | No data available | | | |
| Density | : | 1,00 g/cm3 (20 °C) | | | |
| Solubility(ies) Water solubility | : | No data available | | | |



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| Solubility in other solvents | : | No data available |
|--|---|-------------------|
| Partition coefficient: n- | | No data available |
| octanol/water Auto-ignition temperature | : | No data available |
| Decomposition temperature | : | No data available |
| Viscosity Viscosity, dynamic | : | No data available |
| Viscosity, kinematic | : | No data available |
| Explosive properties | : | No data available |
| Oxidizing properties | : | No data available |

9.2 Other information

No data available

SECTION 10: Stability and reactivity

10.1 Reactivity

No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

The product is chemically stable.

10.3 Possibility of hazardous reactions

Hazardous reactions : Stable under recommended storage conditions.

10.4 Conditions to avoid

Conditions to avoid : No data available

10.5 Incompatible materials

Materials to avoid : No data available

10.6 Hazardous decomposition products

No decomposition if stored and applied as directed.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

Harmful if swallowed.



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|--|---|----------------------|
| <u>Components:</u> | | |
| Polyoxypropylentriamine: | | |
| Acute oral toxicity | : LD50 Oral (Rat): > 550 mg/kg | |
| Acute dermal toxicity | : LD50 Dermal (Rabbit): > 1.001 mg/kg | |
| 3-aminomethyl-3,5,5-trime | ylcyclohexylamine: | |
| Acute oral toxicity | : LD50 Oral (Rat): 1.030 mg/kg | |
| Acute inhalation toxicity | : LC50 (Rat): > 5,01 mg/l Exposure time: 4 h Test atmosphere: dust/mist | |
| Acute dermal toxicity | : LD50 Dermal (Rabbit): > 2.000 mg/kg | |
| Adduct IA (epoxy amine a | duct): | |
| Acute oral toxicity | : LD50 Oral (Rat, female): 300 - 2.000 mg Method: OECD Test Guideline 423 | /kg |
| Skin corrosion/irritation Causes severe burns. | | |
| Serious eye damage/eye ir Causes serious eye damage | itation | |
| Respiratory or skin sensit | ation | |
| Skin sensitisation May cause an allergic skin r | action. | |
| Respiratory sensitisation Not classified based on avai | ble information. | |
| Germ cell mutagenicity Not classified based on avai | ble information. | |
| Carcinogenicity Not classified based on avai | ble information. | |
| Reproductive toxicity Not classified based on avai | ble information. | |
| STOT - single exposure Not classified based on avai | ble information. | |
| STOT - repeated exposure Not classified based on avai | ble information. | |
| Aspiration toxicity Not classified based on avai | ble information. | |



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11.2 Information on other hazards

SECTION 12: Ecological information

12.1 Toxicity

Components:

| | Componentei | |
|------|--|---|
| | 3-aminomethyl-3,5,5-trimethyl | lcyclohexylamine: |
| | Toxicity to algae/aquatic : plants | ErC50 (Desmodesmus subspicatus (green algae)): > 10 - 100 mg/l Exposure time: 72 h |
| | Adduct IA (epoxy amine addu | ict): |
| | Toxicity to algae/aquatic : plants | EC50 (Pseudokirchneriella subcapitata (algae)): 3,13 mg/l Exposure time: 72 h |
| | Toxicity to fish (Chronic tox- : icity) | : LC50: 1,62 mg/l Exposure time: 96 h Species: Danio rerio (zebra fish) |
| | Toxicity to daphnia and other : aquatic invertebrates (Chron- ic toxicity) | EC50: 1,75 mg/l Exposure time: 48 h Species: Daphnia magna (Water flea) |
| 12. | 2 Persistence and degradability No data available | / |
| 12.3 | 3 Bioaccumulative potential No data available | |
| 12.4 | 4 Mobility in soil No data available | |
| 12. | 5 Results of PBT and vPvB ass | essment |
| | Product: | |
| | Assessment : | This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher. |
| 12.0 | 5 Endocrine disrupting propert i No data available | ies |
| 12. | 7 Other adverse effects | |
| | Product: Additional ecological infor- : mation | An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Toxic to aquatic life with long lasting effects. 9 |
| | | 9 |



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SECTION 13: Disposal considerations

| 13.1 Waste treatment methods | | |
|------------------------------|---|--|
| Product | The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. | |
| European Waste Catalogue | : 20 01 27* paint, inks, adhesives and resins containing dan- gerous substances | |
| Contaminated packaging | : 15 01 10* packaging containing residues of or contaminated by dangerous substances | |

SECTION 14: Transport information

| 14.1 UN number | | |
|---------------------------------|---|---|
| ADR | : | UN 2735 |
| IMDG | : | UN 2735 |
| ΙΑΤΑ | : | UN 2735 |
| 14.2 UN proper shipping name | | |
| ADR | | POLYAMINES, LIQUID, CORROSIVE, N.O.S. (3-aminomethyl-3,5,5-trimethylcyclohexylamine) |
| IMDG | - | POLYAMINES, LIQUID, CORROSIVE, N.O.S. (3-aminomethyl-3,5,5-trimethylcyclohexylamine) |
| ΙΑΤΑ | : | Polyamines, liquid, corrosive, n.o.s. (3-aminomethyl-3,5,5-trimethylcyclohexylamine) |
| 14.3 Transport hazard class(es) | | |
| ADR | : | 8 |
| IMDG | : | 8 |
| ΙΑΤΑ | : | 8 |
| 14.4 Packing group | | |



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ADR

| C H L | Packing group Classification Code Iazard Identification Number abels Funnel restriction code | : | III C7 80 8 (E) |
|------------------|---|-------------|---------------------------------|
| P | MDG Packing group abels EmS Code | : : : | III 8 F-A, S-B |
| Р | ATA (Cargo) Packing instruction (cargo ircraft) | : | 856 |
| P P | Packing instruction (LQ) Packing group abels | : | Y841 III Corrosive |
| P g P P | ATA (Passenger) Packing instruction (passen- er aircraft) Packing instruction (LQ) Packing group abels | : | 852 Y841 III Corrosive |
| 14.5 E | Environmental hazards | | |
| - | DR Invironmentally hazardous | : | yes |
| | MDG /arine pollutant | : | yes |

IATA (Passenger) Environmentally hazardous

- IATA (Cargo)
- Environmentally hazardous : yes

14.6 Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

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

: yes

Not applicable for product as supplied.

SECTION 15: Regulatory information

| REACH - Restrictions on the manufacture, placing on | : Conditions of restriction for the fol- |
|---|--|
| the market and use of certain dangerous substances, | lowing entries should be considered: |
| preparations and articles (Annex XVII) | Number on list 3 |



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| International Chemical Weapons Convention (CWC) Schedules of Toxic Chemicals and Precursors | | : | Not applicable |
|--|--|-----------------------|---|
| Regulation (EC) No 649/2012 of ment and the Council concerning of dangerous chemicals | | : | Not applicable |
| REACH - Candidate List of Subs Concern for Authorisation (Article | | : | None of the components are listed (=> 0.1 %). |
| REACH - List of substances sub (Annex XIV) | | : | Not applicable |
| Regulation (EC) No 1005/2009 c plete the ozone layer | on substances that de- | : | Not applicable |
| Regulation (EU) 2019/1021 on p tants (recast) | ersistent organic pollu- | : | Not applicable |
| REACH Information: | All substances contain - registered by our ups - registered by us, and - excluded from the reg - exempted from the reg | strea I/or gula | am suppliers, and/or ation, and/or |
| Seveso III: Directive 2012/18/EU jor-accident hazards involving da E2 | | | t and of the Council on the control of ma- NRDS |
| Volatile organic compounds : | Law on the incentive ta (VOCV) no VOC duties | ax f | or volatile organic compounds |
| | | | 4 November 2010 on industrial ution prevention and control) |
| Occupational Illnesses (R- : 461-3, France) | 49 bis, 49 | | |
| Installations classified for the : protection of the environment (Environment Code R511-9) | 4511 | | |

15.2 Chemical safety assessment

No Chemical Safety Assessment has been carried out for this mixture by the supplier.

SECTION 16: Other information

Full text of H-Statements

| H302 | : Harmful if swallowed. |
|------|--|
| H312 | : Harmful in contact with skin. |
| H314 | : Causes severe skin burns and eye damage. |
| H317 | : May cause an allergic skin reaction. |
| H318 | : Causes serious eye damage. |



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| H411 | : | Toxic to aquatic life with long lasting effects. | | |
|----------------------------------|---|--|--|--|
| H412 | : | Harmful to aquatic life with long lasting effects. | | |
| Full text of other abbreviations | | | | |
| Acute Tox. | : | Acute toxicity | | |
| Aquatic Chronic | : | Long-term (chronic) aquatic hazard | | |
| Eye Dam. | : | Serious eye damage | | |
| Skin Corr. | : | Skin corrosion | | |
| Skin Sens. | : | Skin sensitisation | | |
| ADR | : | European Agreement concerning the International Carriage of | | |
| | | Dangerous Goods by Road | | |
| CAS | : | Chemical Abstracts Service | | |
| DNEL | : | Derived no-effect level | | |
| EC50 | : | Half maximal effective concentration | | |
| GHS | : | Globally Harmonized System | | |
| IATA | : | International Air Transport Association | | |
| IMDG | : | International Maritime Code for Dangerous Goods | | |
| LD50 | : | Median lethal dosis (the amount of a material, given all at | | |
| | | once, which causes the death of 50% (one half) of a group of test animals) | | |
| LC50 | | Median lethal concentration (concentrations of the chemical in | | |
| 2000 | • | air that kills 50% of the test animals during the observation | | |
| | | period) | | |
| MARPOL | : | International Convention for the Prevention of Pollution from | | |
| | | Ships, 1973 as modified by the Protocol of 1978 | | |
| OEL | : | Occupational Exposure Limit | | |
| PBT | : | Persistent, bioaccumulative and toxic | | |
| PNEC | : | Predicted no effect concentration | | |
| REACH | : | Regulation (EC) No 1907/2006 of the European Parliament | | |
| | | and of the Council of 18 December 2006 concerning the Reg- | | |
| | | istration, Evaluation, Authorisation and Restriction of Chemi- | | |
| 0.410 | | cals (REACH), establishing a European Chemicals Agency | | |
| SVHC | : | Substances of Very High Concern | | |
| vPvB | | Very persistent and very bioaccumulative | | |

Further information

| Classification of the mixture: | | Classification procedure: |
|--------------------------------|------|---------------------------|
| Acute Tox. 4 | H302 | Calculation method |
| Skin Corr. 1B | H314 | Calculation method |
| Eye Dam. 1 | H318 | Calculation method |
| Skin Sens. 1 | H317 | Calculation method |
| Aquatic Chronic 2 | H411 | Calculation method |

The information contained in this Safety Data Sheet corresponds to our level of knowledge at the time of publication. All warranties are excluded. Our most current General Sales Conditions shall apply. Please consult the product data sheet prior to any use and processing.

Changes as compared to previous version !



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