

1 • IDENTIFICATION OF SUBSTANCES / MIXTURE AND OF THE COMPANY / UNDERTAKING

1:1 Product identifier:

- Sample Name: Protective Film
- Trade Name: TIMco SHIELD
- Sample Code: N/A
- Physical State: Solid, odorless
- Color: Colourless transparent

1:2 Relevant identified uses and uses advised against:

Relevant identified uses: N/A
Uses advised against: N/A
Reasons why uses advised against: N/A

1:3 Details of the supplier of the safety data sheet:

Supplier: T. I. Midwood & Co. Ltd.
Address:
TIMco House
Green Lane
Wardle
Nantwich
Cheshire
CW5 6BJ
Telephone Number: + 44 (0)1829 261111
Fax (UK): +44 (0)1829 261102

1:4 Emergency Telephone

In case of emergency, please contact: + 44 (0)1829 261111
Other comments: N/A

2 • IDENTIFICATION OF SUBSTANCES / MIXTURE

2:1 Classification of the substance or mixture:

- 2:1:1: Classification according to Regulation (EC) No 1272/2008 (CLP):** N/A
2:1:2: Classification according to Directive 67/548/EEC: None.
2:1:3: Additional information: UN Classification: N/A

2:2 Label elements: None.

2:3 Other hazards: This product does not meet the criteria for PBT and vPvB according to Regulation (EC) No 1907/2006, Annex XIII.

3 • COMPOSITION/INFORMATION ON INGREDIENTS

General chemical description: This chemical product is a mixture. **Composition, Information on Ingredients:**

Chemical Name	CAS No.	Percent (by weight)	EC No.	Classification according to 67/548/EEC
Ethene, homopolymer	9002-88-4	90	618-339-3	n/a
2-Propenoic acid, polymer with butyl 2-propenoate and isooctyl 2-propenoate	63793-44-2	10	n/a	n/a

4 • FIRST AID MEASURES

4:1 Description of first aid measures:

General notes: This product should not present a health hazard when used under reasonable conditions.

Following inhalation: If respiratory tract irritation occurs, remove to fresh air immediately. If breathing is difficult, give oxygen by trained professionals. If not breathing, give artificial respiration immediately. Get medical aid immediately if feel unwell.

Following skin contact: No harm under normal using or storing conditions. If skin irritation occurs, remove contaminated clothing and shoes immediately and flush skin with plenty of water and soap. Get medical aid if irritation occur.

Following eye contact: In case of contact with eyes, rinse immediately with plenty of water for at least 15-30 minutes, and lift the upper and lower eyelids occasionally. Check for and remove contact lenses if easily possible. DO NOT rub eyes with hand. Get medical aid immediately.

Following ingestion: Ingestion of this material is unlikely. Get medical aid immediately if symptoms occur. Self-protection of first-aider: Use proper personal protective equipment as indicated in Section 8.

4:2 Most important symptoms and effects, both acute and delayed: See Section 11 for more information.

4:3 Indication of any immediate medical attention and special treatment needed: Treat symptomatically and supportively.

5 • FIRST AID MEASURES

5:1 Extinguishing media:

Suitable extinguishing media: Use appropriate extinguishing media in case of fire. Such as powder, water spray, foam, carbon dioxide and dry sand.

Unsuitable extinguishing media: None.

5:2 Special hazards arising from the substance or mixture: The product may decompose on heating producing irritating gases.

Hazardous combustion products: During a fire, irritating fumes may be generated by thermal decomposition or combustion.

5:3 Advice for firefighters: As in any fire, wear a self-contained breathing apparatus in pressure-demand, and full protective gear. Approach fire from upwind to avoid hazardous vapors and toxic decomposition products. Move containers from fire area if this can be done without risk.

6 • ACCIDENTAL RELEASE MEASURES

6:1 Personal precautions, protective equipment and emergency procedures:

6:1:1 For non-emergency personnel:

Protective equipment: No action shall be taken involving any personal risk or without suitable training. Keep unnecessary and unprotected personnel from entering. Use proper personal protective equipment as indicated in Section 8.

Emergency procedures: Evacuate and ventilate spill area. Stop leak if safe to do so. Move containers from spill area. Isolate hazard area. Do not touch or walk through spilled material. Avoid breathing vapor and fume. Remove all

6 • ACCIDENTAL RELEASE MEASURES CONT...

sources of ignition or heat. Review Section 5 and Section 7 sections before proceeding with clean-up.

6:1:2 For emergency responders: Avoid breathing vapors, mist or gas. Keep adequate ventilation. Remove all sources of ignition or heat.

6:2 Environmental precautions:

Avoid dispersal of spilt material and run off and contact with soil, waterways, drains and sewers.

6:3 Methods and material for containment and cleaning up:

6:3:1 For containment: Stop leak if safe to do so. Move containers from spill area.

6.3.2 For cleaning up: Carefully collect remainder, then remove to suitable and closed container for disposal or recycle according to local regulations. The materials which are used as cleansing are disposed according to local regulations. Review Sections 5 and Section 7 sections before proceeding with clean-up. **6.3.3 Other information:** Contaminated floor may be flushed with water into chemical sewer.

6.4 Reference to other sections: Use proper personal protective equipment as indicated in Section 8. And see Section 13 for disposal information.

7 • HANDLING AND STORAGE

7.1 Precautions for safe handling:

Protective measures: Training should be provided to anyone working with or near this material. Training should cover potential health effects and proper handling techniques. Avoid contact with eyes, skin and clothing. Avoid ingestion and inhalation.

Measures to prevent fire: Ensure good local exhaust ventilation. Keep container away from any sources of ignition or heat (e.g. open flames, hot surfaces). The work area should be equipped with the corresponding species and quantity of emergency equipment, spills emergency treatment equipment and appropriate storage material.

Measures to prevent aerosol and dust generation: Ensure good local exhaust ventilation. Handle and open container with care.

Measures to protect the environment: Do not allow the products to be released to the environment without proper treatment.

Advice on general occupational hygiene: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed.

7.2 Conditions for safe storage, including any incompatibilities:

Technical measures and storage conditions: Store in a cool, dry, well-ventilated area away from incompatible substances (see section 10), feedstuffs, beverages and foods. Keep away from heat, sparks and flame. Treat carefully, avoid physical damage to containers.

The storage area should be equipped with the corresponding species and quantity of emergency equipment, spills emergency treatment equipment and appropriate storage material.

Packing materials: N/A

Requirements for storage rooms and vessels: Do not allow products or scraps of the products to accumulate and maintain clear aisles with adequate access to all storage areas and exits.

7.3 Specific end use(s):

Recommendations: N/A

Industrial sector specific solutions: N/A

8 • EXPOSURE CONTROLS, PERSONAL PROTECTION

Information on monitoring procedures:

CAS No.	ACGIH	NIOSH	OSHA
9002-88-4	n/a	n/a	n/a
63793-44-2	n/a	n/a	n/a

8:2 Exposure controls: No data available:

8:2:1 Appropriate engineering controls: Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Keep away from heat and fire.

8:2:2 Personal protection equipment:

8:2:2:1 Eye and face protection: No special requirement under normal conditions. It is recommended to wear appropriate safety spectacles.

8:2:2:2 Skin protection: Hand protection: No special requirement under normal use. Wear protective gloves when work environment needed.

Other skin protection: No special requirement under normal use. Wear appropriate protective clothing to prevent skin exposure when work environment needed. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

8:2:2:3 Respiratory protection: No special requirement under normal use. A full face positive pressure supplied-air respirator or a self contained breathing apparatus should be used when large spilled or fire.

8:2:2:4 Other protection: To maintain good health habits. Smoking should be prohibited in areas where this material is stored.

8:2:3 Environmental exposure controls: N/A

9 • PHYSICAL AND CHEMICAL PROPERTIES

9:1 Information on basic physical and chemical properties:

Appearance: Colourless transparent plastic film.

Odour: Odourless.

Odour threshold: N/A

pH: N/A

Melting point/freezing point: N/A

Initial boiling point and boiling range: N/A

Flash Point: N/A

Evaporation rate: N/A

Upper/lower flammability or explosive limits: N/A

Vapour pressure: N/A

Vapour density: N/A

Relative density: N/A

Density: N/A

Solubility in Water: N/A

Partition coefficient: n-octanol/water: N/A

Auto-ignition temperature: N/A

Decomposition temperature: N/A

Viscosity: N/A

Explosive properties: N/A

Oxidising properties: N/A

Flammability (solid, gas): N/A

9:2 Other information: N/A

10 • STABILITY AND REACTIVITY

10:1 Reactivity: No information found.

10:2 Chemical stability: Stable under normal storage and handling conditions.

10:3 Possibility of hazardous reactions: No hazardous reactions under normal storage and handling conditions. The product decomposes on heating producing irritating gases/fumes.

10:4 Conditions to avoid: Incompatible materials, any sources of ignition or heat (e.g. open flames, smoking, hot surfaces, excess heat).

10:5 Incompatible materials: Strong oxidants, acids, bases.

10:6 Hazardous decomposition products: The product may produce irritating gases in case of fire.

11 • TOXICOLOGICAL INFORMATION

11:1 Information on toxicological effects: Acute toxicity:

CAS No.	LC50/LD50
9002-88-4	LD50 Rat (Sprague-Dawley CD) (201-223g) oral >2000 mg/kg body weight
63793-44-2	No data available

Skin irritation/corrosion: No data available.

Respiratory or skin sensitization: No data available.

Germ cell mutagenicity: No data available.

Repeated dose toxicity: No data available.

Carcinogenicity: CAS#9002-88-4:

- IARC: Group 3-Not classifiable as to carcinogenicity to humans.

- Not listed as carcinogens by ACGIH, CA Prop 65, NTP.

CAS#63793-44-2:

- Not listed as carcinogens by ACGIH, IARC, CA Prop 65, NTP.

Reproductive toxicity: No data available.

STOT-single exposure: No data available.

STOT-repeated exposure: No data available.

Aspiration hazard: No data available.

Potential Health Effects:

Eye: No harm under normal using or storing conditions. If contacted, may result in eye irritation.

Skin: No harm under normal using or storing conditions.

Ingestion: Ingestion is unlikely under normal using or storing conditions. May be harmful if swallowed.

Inhalation: Inhalation is unlikely under normal using or storing conditions. May be harmful if inhaled. May cause respiratory tract irritation.

12 • ECOLOGICAL INFORMATION

12:1 Toxicity: No data available.

12:2 Persistence and degradability: Expected to exist long time in the natural environment.

12:3 Bioaccumulative potential: No data available.

12:4 Mobility in soil: No data available.

12:5 Results of PBT and vPvB assessment: No compositions in this product with known CAS numbers are assessed to be a PBT or a vPvB.

12:6 Other adverse effects: Water Hazard Classes (WGK): No data available.

12:7 Additional information: Do not allow large quantities of it reach ground water, water course or sewage system. Do not allow this product to be released to the environment without proper treatment.

13 • DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods:

13.1.1 Product/Packaging disposal: Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Disposal should be in accordance with applicable regional, national and local laws and regulations. Contaminated packaging material should be treated equivalent to residual chemical.

13.1.2 Waste treatment-relevant information: The generation of waste should be avoided or minimized wherever possible. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor.

13.1.3 Sewage disposal-relevant information: Avoid dispersal of spilled material and run off and contact with soil, waterways, drains and sewers.

13.1.4 Other disposal recommendations: Refer to Section 7 - Handling and Storage and Section 8 - Exposure Controls/Personal Protection for additional handling information and protection of employees.

14 • TRANSPORT INFORMATION

Air transport (ICAO-IATA / DGR 57th) UN Number: N/A
UN Proper Shipping Name: N/A Transport hazard class: N/A Subsidiary risk: N/A
Packaging group: N/A
Packaging Sign: N/A
Other Information: N/A
Special precautions for user: N/A
Marine Pollutant (Y/N): No
Sea transport (IMDG CODE 37-14 edition) UN Number: N/A
UN Proper Shipping Name: N/A
Transport hazard class: N/A
Subsidiary risk: N/A
Packaging group: N/A

Packaging Sign: N/A
Other Information: N/A
Special precautions for user: N/A
Marine Pollutant (Y/N): No
Land transport (TDG) UN Number: N/A
UN Proper Shipping Name: N/A
Transport hazard class: N/A
Subsidiary risk: N/A
Packaging group: N/A
Packaging Sign: N/A
Other Information: N/A
Special precautions for user: N/A
Marine Pollutant (Y/N): No

15 • REGULATORY INFORMATION

15:1 Safety, health and environmental regulations/ legislation specific for the substance or mixture:

Regulatory information: Reference to the local, national, US, EU, CA and international regulations.

CAS No.	TSCA	IECSC	EINECS/ELINCS/NLP	DSL/NDSL
9002-88-4	Listed	Listed	Listed	Listed in DSL
63793-44-2	Listed	Listed	Unlisted	Listed in DSL

15:2 Chemical safety assessment:

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

16 • ADDITIONAL INFORMATION

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Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

CAS: (Chemical Abstracts Service);
EC: (European Commission);
ACGIH: (American Conference of Governmental Industrial Hygienists);
NIOSH: (US National Institute for Occupational Safety and Health);
OSHA: (US Occupational Safety and Health);
TLV: (Threshold Limit Value)
TWA: (Time Weighted Average);
STEL: (Short Term Exposure Limit);
PEL: (Permissible Exposure Level);
REL: (Recommended Exposure Limit);
PC-STEL: (Permissible concentration-time weighted average);
PC-TWA: (Permissible concentration-short time exposure limit);
LC50: (Lethal concentration, 50 percent kill);
LD50: (Lethal dose, 50 percent kill)
IARC: (International Agency for Research on Cancer);
EC50: (Median effective concentration);
BCF: (Bioconcentration Factor);

BOD: (Biochemical oxygen demand);
NOEC: (No observed effect concentration);
NTP: (US National Toxicology Program);
RTECS: (Registry of Toxic Effects of Chemical Substances);
IATA: (International Air Transport Association);
IMDG: (International Maritime Dangerous Goods);
TDG: (Recommendations on the TRANSPORT OF DANGEROUS GOODS Model Regulations);
TOC: (Total Organic Carbon);
TSCA: (Toxic Substances Control Act of USA);
DSL: (the Domestic Substances List of Canada);
NDSL: (the Non-domestic Substances List of Canada)