

Safety Data Sheet

1- Identification of these substances /preparation and of the company/undertaking

Identification of the substance or preparation:

Name: THIOTROPIC GRAIN FILLER.

Company/undertaking identification:

Registered company name: Rothko and Frost Limited

Address: Number 49, Foxes Bridge Road, Forest Vale Industrial Estate, Cinderford, GL14

2PQ.

Telephone: 01594 823146 Email: info@rkfst.co.uk Website: www.rksft.co.uk

Emergency Telephone: 01594 823146 Use of the substance/preparation:

Paint product. Please refer to the technical data sheet.

2- Identification of hazards

This product is classed: Highly flammable liquid.

Possibility of serious noxious effects in the event of repeat or prolonged exposure and by inhalation.

Possibility of irritation to the eyes and skin.

Possibility of category three toxic effects on reproduction.

Possible risk of harm to the unborn child.

Possibility of noxious effects with symptoms of slight poisoning by inhalation.

Vapours may cause drowsiness and dizziness.

Preparation classification:

Harmful. Highly Flammable.





| R 36/38 | Irritating to eyes and skin. |
|---------|---|
| R 11 | Highly flammable. |
| R 20 | Harmful by inhalation. |
| R48/20 | Harmful: Danger of serious damage to health by prolonged exposure through |
| | inhalation. |
| R 63 | Possible risk of harm to the unborn child. |

3- Composition/information on ingredients

Full text of risk phrases appearing in section2: see section 16.

Hazardous substance present on their own:

(Present in the preparation at a sufficient concentration to give it the toxicological characteristics it would have in a 100% pure state)

| INDEX | CAS | EC | Name | Symb. | R: | % |
|--------------|----------|-----------|---------|-------|-------------------|----------------|
| 601-021-00-3 | 108-88-3 | 203-625-9 | TOLUENE | Xn F | Repr. Cat. 3; R63 | 25 <= x % < 50 |
| | | | | | Xn; R48/20 R65 | |
| | | | | | Xi; R38 | |
| | | | | | F;R11 | |
| | | | | | R67 | |

Other substances representing a hazard:

| INDEX | CAS | EC | Name | Symb. | R: | % |
|--------------|-----------|-----------|------------------------|-------|---------------------------------------|-----------------|
| 601-022-00-9 | 1330-20-7 | 215-535-7 | XYLENE | Xn | Xn; R20/21 Xi; R38 R10 | 10 <= x % < 25 |
| 603-108-00-1 | 78-83-1 | 201-148-0 | 2-METHYLPROPAN-1-OL | Xi | Xi; R37/38 R41 R10 R67 | 2.5 <= x % < 10 |
| 603-117-00-0 | 67-63-0 | 200-661-7 | PROPAN-2-OL | Xi F | Xi; R36 F;R11 R67 | 2.5 <≖ x % < 10 |
| 606-004-00-4 | 108-10-1 | 203-550-1 | ISOBUTYL METHYL KETONE | Xn F | Xn; R20 Xi; R36/37 F;R11 R66 | 2.5 <= x % < 10 |

Substances present at a concentration below minimum danger threshold:

| INDEX | CAS | EC | Name | Symb. | R: | % |
|--------------|----------|-----------|-----------------|-------|---------|----------------|
| 607-025-00-1 | 123-86-4 | 204-658-1 | N-BUTYL ACETATE | | R10 | 0 <= x % < 2.5 |
| | | | | | R66 R67 | |

Other substances with occupational exposure limits:

No known substances in this category present.

Other components:

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| INDEX | CAS | EC | Name | Symb. | R: | % |
|--------------|------------|-----------|------------------------------|-------|--------|----------------|
| 649-356-00-4 | 64742-95-6 | 265-199-0 | SOLVENT NAPHTHA (PETROLEUM), | Xn | Xn;R65 | 0 <= x % < 2.5 |
| | | | LIGHT AROM. | | 200 | |

4- First Aid Measures

As a general rule, in case of doubt or if symptoms persist, always consult a doctor.

NEVER induce swallowing in an unconscious person.

In the event of exposure by inhalation:

If a large quantity is inhaled, move the patient into the fresh air and keep him/her warm and still. If the person is unconscious, place in the recovery position and call an ambulance.

In the event of splashes or contact with eyes.

Wash thoroughly with soft clean water for 15 minutes holding the eyelids open. Refer the patient to an ophthalmologist, in particular if there is any redness, pain or visual impairment.

In the event of splashes and contact with skin:

Remove contaminated clothing and wash the skin thoroughly with soap and water or a recognised cleaner. DO NOT use solvents or thinners.

In the event of swallowing:

In the event of swallowing, if the quantity is small (no more than one mouthful), rinse the mouth with water and consult a doctor. Keep still. DO NOT induce vomiting. Call a doctor and show them the label.

5- FIRE-FIGHTING MEASURES

Chemical powders, carbon dioxide and other extinguishing gas are suitable for small fires.

Suitable extinguishing media:

Carbon dioxide, chemical powders, foams and other extinguishing gases. In the event of a fire, use specific suitable extinguishing agents. Never use water.

Extinguishing media which must not be used for safety reasons:

Water is not generally recommended since it can be ineffective; however, it can be used successfully to cool containers exposed to the fire and to disperse fumes.

A fire will often produce thick black smoke. Exposure to decomposition products may be hazardous to health. Do not breathe in smoke.

Prevent the effluent of –fighting measures from entering drains or waterways.

Special protective equipment for fire-fighters:

Fire-fighters must be equipped with autonomous insulating breathing apparatus.

6- ACCIDENTAL RELEASE MEASURES

Personal precautions:

On account of the organic solvents contained in the preparation, eliminate sources of ignition and ventilate the premises.

Avoid inhaling the vapours.

Avoid contact with the skin and eyes.

Consult the safety measures listed under headings 7 and 8.

If a large quantity has been spilt, evacuate all personnel and allow intervention by trained operators equipped with safety apparatus.

Environmental precautions:

Contain and control the leaks or spills with non-combustible absorbent materials such as sand, earth, vermiculite, diatomaceous earth in drums for waste disposal.

Prevent any material from entering drains or waterways.

Use drums to dispose of waste recovered in accordance with applicable regulations (see heading 13).

If the product contaminates waterways, rivers, or drains alert the relevant authorities in accordance with statutory procedures.

Methods for cleaning up:

Clean preferable with detergent, do not use solvents.

7- HANDLING AND STORAGE

The regulation relating to storage premises apply to workshops where the product is handled. Avoid exposure to pregnant women and warn women of child-bearing age of the possible risks.

Handling:

Handle in well-ventilated areas.

The vapours are denser than the air. They can spread along the ground and form explosive mixtures with air.

Prevent the formation of flammable of explosive concentrations in air avoid vapour concentrations higher than the occupational exposure limits.

Fire Prevention:

Prevent the accumulation of electrostatic charges with connections to earth.

The preparation may become electrostatically charged; always place on the ground during transfer. Wear antistatic shoes and clothes and make floors of conductive materials.

Use the product in premises where there are no naked flames or other sources of ignition and have protective electrical equipment.

Keep packages tightly closed and away from sources of heat and naked flames.

Do not use tools which may produce a spark. Do not smoke.

Prevent access by unauthorised personnel.

Recommended equipment and procedures:

For personal safety, see section 8.

Observe precautions stated on label and also industrial safety regulations.

Avoid inhaling solvent vapours and spray-gun aerosols.

Avoid exposure – obtain special instructions before use.

Packages which have been opened must be reclosed carefully and stored in an upright position.

Avoid inhaling vapours. Carryout any industrial operation which may give rise to this in a sealed apparatus.

In all cases, recover emissions at source.

Provide vapour extraction at the emotions source and also general ventilation of the premises.

Also provide breathing apparatus for certain short tasks of an exceptional nature for emergency interventions.

Where the personnel must carry out work in a booth, whether for spraying or otherwise, the ventilation must be inadequate to control particles and solvent vapours in every case.

It is therefore recommended that personnel wear masks with compressed air supply during spraying operations until the concentration of particles and solvent vapours has fallen below the exposure limits.

In the case of paints, also avoid inhaling dust, particles and fumes during treatment of surfaces coated with this preparation by dry sand blasting or by heating operations (welding, soldering, cutting etc.)

Avoid contact of product with the skin and eyes.

Prohibited equipment procedures:

Smoking, eating and drinking are prohibited in premises where the preparation is used. Never open the packages under pressure.

Storage:

Keep the container tightly closed in a dry, well ventilated place.

Keep away from all source of ignition – do not smoke.

Keep well away from all sources of ignition, heat and direct sunlight.

The floor must be impermeable and from a collecting basin so that, in the event of an accidental spillage, the liquid cannot spread beyond this area.

The storage and use of this product is subject to the Dangerous Substances and Explosives Atmospheres Regulations (DSEAR). The principals contained in HSE guidance note Chemical Warehousing: The storage of Packed Dangerous Substances should also be observed.

8- EXPOSURE CONTROL/PERSONAL PROTECTION





Use personal protection equipment as per Directive 89/686/EEC.

Technical measures:

Ensure adequate ventilation, if possible with extractor fans at work posts and appropriate general extraction. Check the atmosphere periodically.

If this ventilation is insufficient to maintain the concentration of vapours below the exposure limits, wear breathing apparatus.

Exposure limit values (2003-2006):

| UKWELs | TWA: | STEL: | Ceiling: | Definition: | Criterion: |
|----------------------|-------------------|--------------------|----------|-------------|------------|
| 123-8 6-4 | 150 ppm | 200 ppm | | . | ₽ |
| 108-10-1 | 50 ppm | 100 ppm | • | • | - |
| 67-63-0 | 400 ppm | 500 ppm | · T | • | * / |
| 78-83-1 | 50 ppm | 75 ppm | * | * | * |
| 1330-20-7 | 50 ppm | 100 ppm | • | * | • |
| 108-88-3 | 50 ppm | 150 ppm | | ų. | ₽ |
| UK/OES | TWA: | STEL: | Ceiling: | Definition: | Criterion: |
| 123-86-4 | 150 ppm | 200 ppm | | | • |
| 108-10-1 | | | | | |
| | 50 ppm | 100 ppm | ** | * | * |
| 67-63-0 | 50 ppm 400 ppm | 100 ppm 500 ppm | | * | ** |
| | | 73775555 | | | |
| 67-63-0 | 400 ppm | 500 ppm | * | * | ** |
| 67-63-0 78-83-1 | 400 ppm 50 ppm | 500 ppm 75 ppm | © © | | ** |

Respiratory protection:

Where workers encounter concentrations higher than the exposure limits, they must wear suitable, approved masks. Anti-aerosol filters.

-P2 (white)

Anti-gas filters.

-A2 (brown)

Hand protection:

Protective creams may be used for exposed skin, but they should be applied after contact with the product. In the event of prolonged or repeated contact with hands, use appropriate gloves.

Type of gloves recommended:

- -Nitrile
- -PVA (polyvinylacohol)

Eye and face protection:

Avoid contact with eyes.

Wear safety goggles.

Provide eye washes in workshops where the product is constantly handled.

Skin protection:

For further information, see section 11 of S.D.S. – Toxicological information.

9- PHYSICAL AND CHEMICAL PROPERTIES

General information:

Physical state:

Important health, safety and environmental information:

pH of the substance or preparation: Neutral.

When pH measure is possible, it has a value of: Not stated.

Boiling point/boiling range: Not specified.

Flash point interval: Flash point: <=21 degrees C.

Vapour pressure: Below 110 kPa (1.10 bar).

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Density: >1

Water solubility: Insoluble.

Other information:

Melting point/melting range: Not specified. Self-ignition temperature: Not specified.

Decomposition point/decomposition range: Not specified.

10- STABILITY AND REACTIVITY

When exposed to high temperatures, the preparation may release dangerous decomposition products such as carbon monoxide and dioxide, smoke and nitrogen oxide.

Any apparatus likely to produce a flame or to have a metallic surface at high temperature (burners, electric arcs, furnaces etc.) must not be allowed on the premises.

11- TOXICOLOGICAL INFORMATION

No data is available regarding the preparation itself.

Exposure to vapours from solvents contained in the preparation beyond the exposure limits stated may produce effects harmful to health, such as: Irritation of mucous membrane and respiratory system, kidneys, liver, and central nervous system.

Symptoms produced will include headaches, numbness, dizziness, fatigue, muscular asthenia and, in extreme cases, loss of consciousness.

Prolonged or repeated contact with the preparation may strip the skin of its natural oils and thus cause non-allergic dermatitis on contact and absorption through the epidermis.

Splashes in the eyes may cause irritation and reversible damage.

It is generally agreed that substances contained are likely to cause appearance of major lesions which persist for at least 24 hours after application to the eye of an animal and are likely to cause significant irritation which lasts for at least 24 hours after application to the healthy, unbroken skin of an animal for a period of up to 4 hours.

It is generally agreed that substances contained are likely to cause category 3 teratogenic effects.

Other date:

CAS 108-88-3: IARC Group 3 (the agent is not classifiable as to its carcinogenicity in to humans.)

CAS 67-63-0: IARC Group 3 (the agent is not classifiable as to its carcinogenicity in to humans.)

The product has been assessed following the conventional method in CHIP and is classified for toxicological hazards accordingly. This takes in to account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

12- ECOLOGICAL INFORMATION

No ecological data on the product itself is available.

The product must not be allowed to run into drains or waterways.

The product has been assessed following the conventional method in CHIP and is classified for ecological hazards accordingly. See sections 3 and 15 for details.

Other adverse effects:

Germany: WGK 2 (VwVwS vom 17/05/99, KBws)

13- DISPOSAL CONSIDERATIONS

Do not pour into drains or waterways.

Waste:

Recycle or dispose of waste in compliance with current legislation, preferably via a certified collector or company.

Do not contaminate the ground or water with waste, do not dispose of waste into the environment.

Soiled packaging:

Empty container completely. Keep labels on container.

Give to a certified disposal contractor.

14- TRANSPORT INFORMATION

Transport product in compliance with provisions of the ADR for road, RID for rail, IMDG for sea and ICAO/IATA for air transport. (ADR 2005 – IMDG 2004 – ICAO/IATA 2005.)

UN1263 = PAINT (including paint, lacquer, enamel, stain, shellac, varnish, polish, liquid filler and liquid lacquer base) or PAINT RELATED MATERIAL (including paint thinning and reducing compound.)

| ADR/RID | Class | Code | Pack gr. | Label | Ident. | LQ | Provis. | |
|---------|------------|----------------|----------|-----------|----------------------------|--------------------|---------------|----------------|
| N | 3 | F1 | 11 | 3 | 33 | LQ6 | 163-650-6 | 640D |
| 3 | | | | | | | | |
| | Class | 2°Label | Pack or. | LQ | EMS | Provis. | | |
| IMDG | Class 3 | 2°Label | Pack gr. | LQ 5 L | EMS F-E,S-E | Provis. 163 944 | | |
| | | | | | EMS F-E,S-E Passager | | Cargo | note |
| IMDG | 3 | (2 -6) | 11 | 5 L | F-E,S-E | 163 944 | Cargo 60 L | note A3 A72 |

15- REGULATORY INFORMATION

This preparation was classified in compliance with the directive known as <All preparations> 1999/45/EC and its adaptations.

In addition directive 2004/73/EC with the 29 degree adaptation of directive 67/548/EEC (hazardous substances) has been taken into account.

Preparation classification:

Harmful.



Contains: 601-021-00-3 TOLUENE

Highly flammable.



| 603-108-00-1 | 2-METHYLPROPAN-1-OL |
|--------------|------------------------|
| 601-022-00-9 | XYLENE |
| 603-117-00-0 | PROPAN-2-OL |
| 606-004-00-4 | ISOBUTYL METHYL KETONE |

Particular hazards associated with the preparation and safety recommendations:

| R 36/38 | Irritating to eye and skin. |
|---------|--|
| R 20 | Harmful by inhalation. |
| R 11 | Highly flammable. |
| R 48/20 | Harmful: danger of serious damage to health by prolonged exposure |
| | through inhalation. |
| R 63 | Possible risk of harm to the unborn child. |
| S 23 | Do not breathe fumes, vapours or spray. |
| S 36/37 | Wear suitable protective clothing and gloves. |
| S 16 | Keep away from sources of ignition – no smoking. |
| S 26 | In case of contact with eyes rinse immediately with plenty of water and seek |
| | medical advice. |
| S 62 | If swallowed do not induce vomiting: seek medical advice immediately and |
| | show this container and all labels. |
| S 9 | Keep container in well ventilated place. |
| S 24/25 | Avoid contact with skin and eyes. |
| S 51 | Use only in well ventilated areas. |
| | |

Particular provisions:

Germany: WGK 2 (VwVwS vom 17/05/99, KBws)

16- OTHER INFORMATION

Since the user's working conditions are not known by us, the information supplied on this safety data sheet is based on our current level of knowledge and on national and community regulations.

The product must not be used for any purposes other than those specified under heading 1 without first obtaining written handling instructions.

It is at all times the responsibility of the user to take all necessary measures to comply with legal requirements and local regulations.

The information given on this safety data sheet must be regarded as a description of the safety requirements relating to our product and not a guarantee of its properties.

Full text of risk phrases appearing in section 2:

| R 10 | Flammable. |
|---------|--|
| R 11 | Highly flammable. |
| R 20 | Harmful by inhalation. |
| R 20/21 | Harmful by inhalation and in contact with the skin. |
| R 36 | Irritating to eyes. |
| R 36/37 | Irritating to eyes and respiratory system. |
| R 37/38 | Irritating to respiratory system and skin. |
| R 38 | Irritating to skin. |
| R 41 | Risk of serious damage to eyes. |
| R 48/20 | Harmful: danger of serious damage to health by prolo |
| | |

R 48/20 Harmful: danger of serious damage to health by prolonged exposure through inhalation.

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| R63.G3 | Possible | risk of | harm to | the | unborn | child. |
|--------|----------|---------|---------|-----|--------|--------|
| | | | | | | |

R65 Harmful: may cause lung damage if swallowed.

R66 Repeated exposure may cause skin dryness or cracking.

R67 Vapours may cause drowsiness and dizziness.