

essentials:

SAFETY DATA SHEET TSRO BROWN BROTHERS RED OXIDE TRADE SPRAY

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product name TSRO BROWN BROTHERS RED OXIDE TRADE SPRAY
Product No. BRO600

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

Identified uses Primer.

1.3. Details of the supplier of the safety data sheet

Supplier Brown Brothers Distribution Limited
PO Box 162
Needham Road,
Stowmarket
IP14 2ZR
Tel: 01449 778 333
Emergency telephone number: Tel:
+44(0) 1449 778 333
Fax: 01449 773 472
enquiries@brownbrothers.com

Manufacturer Brown Brothers Distribution Limited
PO Box 162
Needham Road,
Stowmarket
IP14 2ZR
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+44(0) 1449 778 333
Fax: 01449 773 472
enquiries@brownbrothers.com

1.4. Emergency telephone number

Brown Brothers Emergency telephone number: Tel: +44(0) 1449 778 333

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical and Chemical Hazards	Flam. Aerosol 1 - H222
Human health	EUH066; Eye Irrit. 2 - H319; STOT SE 3 - H336
Environment	Not classified.

Classification (1999/45/EEC) Xi; R36. F+; R12. R66, R67.

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

2.2. Label elements

TSRO BROWN BROTHERS RED OXIDE TRADE SPRAY

Label In Accordance With (EC) No. 1272/2008



Signal Word	Danger	
Hazard Statements	H222	Extremely flammable aerosol.
	H319	Causes serious eye irritation.
	H336	May cause drowsiness or dizziness.
Precautionary Statements	P101	If medical advice is needed, have product container or label at hand.
	P102	Keep out of reach of children.
	P210	Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
	P211	Do not spray on an open flame or other ignition source.
	P271	Use only outdoors or in a well-ventilated area.
	P251	Pressurized container: Do not pierce or burn, even after use.
	P261	Avoid breathing vapour/spray.
	P280	Wear eye and face protection.
	P312	Call a POISON CENTER or doctor/physician if you feel unwell.
	P337+313	If eye irritation persists: Get medical advice/attention.
	P305+351+338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
	P405	Store locked up.
	P410+412	Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122°F.
	P501	Dispose of contents/container in accordance with local regulations.
Supplementary Precautionary Statements	P264	Wash contaminated skin thoroughly after handling.
	P304+340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
	P403+233	Store in a well-ventilated place. Keep container tightly closed.
Supplemental label information	EUH066	Repeated exposure may cause skin dryness or cracking.

2.3. Other hazards**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS****3.2. Mixtures**

TSRO BROWN BROTHERS RED OXIDE TRADE SPRAY

2-METHOXY-1-METHYLETHYL ACETATE		1.0 - <3.0%
CAS-No.: 108-65-6	EC No.: 203-603-9	
Classification (EC 1272/2008) Flam. Liq. 3 - H226	Classification (67/548/EEC) R10	
ACETONE		25.0 - <50.0%
CAS-No.: 67-64-1	EC No.: 200-662-2	
Classification (EC 1272/2008) Flam. Liq. 2 - H225 EUH066 Eye Irrit. 2 - H319 STOT SE 3 - H336	Classification (67/548/EEC) F;R11 Xi;R36 R66 R67	
BUTYL ACETATE -norm		10.0 - <20.0%
CAS-No.: 123-86-4	EC No.: 204-658-1	
Classification (EC 1272/2008) Flam. Liq. 3 - H226 EUH066 STOT SE 3 - H336	Classification (67/548/EEC) R10 R66 R67	
ETHYLBENZENE		0.1 - <0.3%
CAS-No.: 100-41-4	EC No.: 202-849-4	
Classification (EC 1272/2008) Flam. Liq. 2 - H225 Acute Tox. 4 - H332	Classification (67/548/EEC) F;R11 Xn;R20	
IPA		1.0 - <3.0%
CAS-No.: 67-63-0	EC No.: 200-661-7	Registration Number: 01-2119457558-25-XXXX
Classification (EC 1272/2008) Flam. Liq. 2 - H225 Eye Irrit. 2 - H319 STOT SE 3 - H336	Classification (67/548/EEC) F;R11 Xi;R36 R67	
ISO-BUTANOL		1.0 - <3.0%
CAS-No.: 78-83-1	EC No.: 201-148-0	Registration Number: 01-2119484609-23-XXXX

TSRO BROWN BROTHERS RED OXIDE TRADE SPRAY

Classification (EC 1272/2008) Flam. Liq. 3 - H226 Skin Irrit. 2 - H315 Eye Dam. 1 - H318 STOT SE 3 - H335 STOT SE 3 - H336	Classification (67/548/EEC) R10 Xi;R37/38,R41 R67
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PETROLEUM DISTILLATES (AROMATIC HYDROCARBON SOLVENT 160-180)	0.5 - < 1.0%
CAS-No.: 64742-95-6	EC No.: 265-199-0

Classification (EC 1272/2008) Not classified.	Classification (67/548/EEC) Xn;R65. Xi;R37. N;R51/53. R10.
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PETROLEUM GASES, LIQUEFIED	20.0 - <25.0%
CAS-No.: 68476-85-7	EC No.: 270-704-2

Classification (EC 1272/2008) Flam. Gas 1 - H220 Press. Gas - H280	Classification (67/548/EEC) F+;R12.
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XYLENE	3.0 - <5.0%
CAS-No.: 1330-20-7	EC No.: 215-535-7

Classification (EC 1272/2008) Flam. Liq. 3 - H226 Acute Tox. 4 - H312 Acute Tox. 4 - H332 Skin Irrit. 2 - H315	Classification (67/548/EEC) R10 Xn;R20/21 Xi;R38
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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

General information

Get medical attention if any discomfort continues. Remove affected person from source of contamination. General first aid, rest, warmth and fresh air. NOTE! Effects may be delayed. Keep affected person under observation.

Inhalation

Remove victim immediately from source of exposure. In case of inhalation of spray mist: Move person into fresh air and keep at rest. Move injured person into fresh air and keep person calm under observation. If necessary, seek hospital and bring these instructions. Be aware that symptoms of lung oedema (shortness of breath) may develop up to 24 hours after exposure. Immediately call an ambulance.

TSRO BROWN BROTHERS RED OXIDE TRADE SPRAY**Ingestion**

Immediately rinse mouth and drink plenty of water. Keep person under observation. If person becomes uncomfortable take to hospital along with these instructions. Provide rest, warmth and fresh air. Do not induce vomiting. If vomiting occurs, the head should be kept low so that stomach vomit doesn't enter the lungs.

Skin contact

Wash skin thoroughly with soap and water. Remove contaminated clothing immediately and wash skin with soap and water. Get medical attention if any discomfort continues.

Eye contact

Immediately flush with plenty of water for up to 15 minutes. Remove any contact lenses and open eyes wide apart. Do not rub eye. Get medical attention promptly if symptoms occur after washing.

4.2. Most important symptoms and effects, both acute and delayed**General information**

The severity of the symptoms described will vary dependant of the concentration and the length of exposure. NOTE! Effects may be delayed. Keep affected person under observation.

Inhalation

May cause an asthma-like shortness of breath. In case of overexposure, organic solvents may depress the central nervous system causing dizziness and intoxication, and at very high concentrations unconsciousness and death. Drowsiness, dizziness, disorientation, vertigo. Vapours may cause drowsiness and dizziness. In high concentrations, vapours are anaesthetic and may cause headache, fatigue, dizziness and central nervous system effects.

Ingestion

May cause discomfort if swallowed. May cause stomach pain or vomiting. May cause nausea, headache, dizziness and intoxication. Due to the physical nature of this material it is unlikely that swallowing will occur.

Skin contact

Prolonged contact may cause redness, irritation and dry skin. May cause skin irritation/eczema.

Eye contact

Extreme irritation of eyes and mucous membranes, including burning and tearing. Vapour, spray or dust may cause chronic eye irritation or eye damage. May cause blurred vision and serious eye damage.

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

No recommendation given, but first aid may still be required in case of accidental exposure, inhalation or ingestion of this chemical. If in doubt, GET MEDICAL ATTENTION PROMPTLY!

SECTION 5: FIREFIGHTING MEASURES**5.1. Extinguishing media****Extinguishing media**

Use: Foam, carbon dioxide or dry powder. Water spray. Use fire-extinguishing media appropriate for surrounding materials.

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**Hazardous combustion products**

In case of fire, toxic gases (CO, CO₂, NO_x) may be formed. During fire, toxic gases (CO, CO₂, NO_x) are formed.

Unusual Fire & Explosion Hazards

Extremely flammable. Severe explosion hazard when vapours are exposed to flames. Risk of explosion if heated. Vapours are heavier than air and may spread near ground to sources of ignition. May travel considerable distance to source of ignition and flash back. Heat may cause the containers to explode. Aerosol cans may explode in a fire.

Specific hazards

Aerosol containers can explode when heated, due to excessive pressure build-up. Vapours may be ignited by a spark, a hot surface or an ember. Vapours may form explosive air mixtures even at room temperature.

TSRO BROWN BROTHERS RED OXIDE TRADE SPRAY**5.3. Advice for firefighters**

Special Fire Fighting Procedures

Be aware of risk of fire re-starting, and risk of explosion. Cool containers exposed to flames with water until well after the fire is out. Use water to keep fire exposed containers cool and disperse vapours.

Protective equipment for fire-fighters

Self contained breathing apparatus and full protective clothing must be worn in case of fire.

SECTION 6: ACCIDENTAL RELEASE MEASURES**6.1. Personal precautions, protective equipment and emergency procedures**

Wear protective clothing as described in Section 8 of this safety data sheet. Avoid inhalation of vapours and aerosol spray. In case of spills, beware of slippery floors and surfaces.

6.2. Environmental precautions

Avoid discharge into drains, water courses or onto the ground. The product should not be dumped in nature but collected and delivered according to agreement with the local authorities.

6.3. Methods and material for containment and cleaning up

For waste disposal, see section 13. If leakage cannot be stopped, evacuate area. Stop leak if possible without risk. Extinguish all ignition sources. Avoid sparks, flames, heat and smoking. Ventilate. Remove sources of ignition. Collect with absorbent, non-combustible material into suitable containers.

6.4. Reference to other sections

Wear protective clothing as described in Section 8 of this safety data sheet. For waste disposal, see section 13.

SECTION 7: HANDLING AND STORAGE**7.1. Precautions for safe handling**

Read and follow manufacturer's recommendations. Eliminate all sources of ignition. Wear full protective clothing for prolonged exposure and/or high concentrations. Good personal hygiene is necessary. Wash hands and contaminated areas with water and soap before leaving the work site. Do not eat, drink or smoke when using the product. Avoid inhalation of vapours/spray and contact with skin and eyes. Ventilate well, avoid breathing vapours. Use approved respirator if air contamination is above accepted level. Do not use in confined spaces without adequate ventilation and/or respirator. Mechanical ventilation or local exhaust ventilation may be required. Observe occupational exposure limits and minimise the risk of inhalation of vapours and mist.

7.2. Conditions for safe storage, including any incompatibilities

Keep away from heat, sparks and open flame. Keep upright. Protect against physical damage and/or friction. Aerosol cans: Must not be exposed to direct sunlight or temperatures above 50°C. Do not store for long periods or in large quantities. Store in a cool and well-ventilated place. Store in a dry place. Do not store near heat sources or expose to high temperatures.

7.3. 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**

TSRO BROWN BROTHERS RED OXIDE TRADE SPRAY

Name	STD	TWA - 8 Hrs		STEL - 15 Min		Notes
2-METHOXY-1-METHYLETHYL ACETATE	WEL	50 ppm(Sk)	274 mg/m3(Sk)	100 ppm(Sk)	548 mg/m3(Sk)	
ACETONE	WEL	500 ppm	1210 mg/m3	1500 ppm	3620 mg/m3	
BUTYL ACETATE -norm	WEL	150 ppm	724 mg/m3	200 ppm	966 mg/m3	
ETHYLBENZENE	WEL	100 ppm	441 mg/m3	125 ppm	552 mg/m3	Sk
IPA	WEL	400 ppm	999 mg/m3	500 ppm	1250 mg/m3	
ISO-BUTANOL	WEL	50 ppm	154 mg/m3	75 ppm	231 mg/m3	
PETROLEUM GASES, LIQUEFIED	WEL	1000 ppm	1750 mg/m3	1250 ppm	2180 mg/m3	Carc
XYLENE	WEL	50 ppm	220 mg/m3	100 ppm	441 mg/m3	Sk

WEL = Workplace Exposure Limit.

Sk = Can be absorbed through skin.

Carc = Capable of causing cancer and/or heritable genetic damage.

8.2. Exposure controls

Protective equipment



Engineering measures

Provide adequate ventilation. Observe occupational exposure limits and minimize the risk of inhalation of spray.

Provide explosion proof ventilation for high concentrations.

Respiratory equipment

In case of inadequate ventilation use suitable respirator.

Hand protection

No specific hand protection noted, but gloves may still be advisable.

Eye protection

Wear approved, tight fitting safety glasses where splashing is probable.

Other Protection

Provide eyewash station. Wear appropriate clothing to prevent repeated or prolonged skin contact.

Hygiene measures

Wash contaminated clothing before reuse. Wash hands at the end of each work shift and before eating, smoking and using the toilet. Promptly remove any clothing that becomes contaminated. Wash promptly with soap & water if skin becomes contaminated. DO NOT SMOKE IN WORK AREA! When using do not eat, drink or smoke.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**9.1. Information on basic physical and chemical properties**

Appearance Aerosol.
 Colour Red.
 Odour of solvents

TSRO BROWN BROTHERS RED OXIDE TRADE SPRAY

Solubility Insoluble in water
Initial boiling point and boiling range (°C)
Technically not feasible.
Melting point (°C)
Not determined.
Relative density 0.965g/cm³ 20°C
Vapour density (air=1)
Not determined.
Vapour pressure
Not determined.
Evaporation rate
Not determined.
Viscosity ~1000 cP 20
Decomposition temperature (°C)
Not determined.
Odour Threshold, Lower
Not determined.
Odour Threshold, Upper
Not determined.
Flash point (°C)
Technically not feasible.
Auto Ignition Temperature (°C)
Not determined.
Flammability Limit - Lower(%)
Not determined.
Flammability Limit - Upper(%)
Not determined.
Partition Coefficient Not determined. log Pow -0.24
(N-Octanol/Water)
Oxidising properties
Not available.

9.2. Other information

None.

SECTION 10: STABILITY AND REACTIVITY**10.1. Reactivity**

No specific reactivity hazards associated with this product. The product may form explosive vapours/air mixtures even at normal room temperatures.

10.2. Chemical stability

Stable under normal temperature conditions and recommended use.

10.3. Possibility of hazardous reactions

Not relevant

10.4. Conditions to avoid

Avoid heat, flames and other sources of ignition. Avoid exposure to high temperatures or direct sunlight.

10.5. Incompatible materials

Materials To Avoid

No incompatible groups noted.

10.6. Hazardous decomposition products

TSRO BROWN BROTHERS RED OXIDE TRADE SPRAY

None under normal conditions.

SECTION 11: TOXICOLOGICAL INFORMATION**11.1. Information on toxicological effects**

Toxic Dose 1 - LD 50

10768 mg/kg (oral rat)

Toxic Dose 2 - LD 50

3200 mg/kg (oral-rbt)

Toxic Conc. - LC 50

390 ppm/4h (inh-rat)

Acute toxicity:

Butyl Acetate - norm

Acute Toxicity (Dermal LD50)

> 7400 mg/kg Rat

Carcinogenicity:

Does not contain any substances known to be carcinogenic.

Reproductive Toxicity:

Suspected reproductive toxicant based on limited evidence.

Target Organs

Central nervous system

Central nervous system depression including narcotic effects such as drowsiness, narcosis, reduced alertness, loss of reflexes, lack of coordination and vertigo.

Specific target organ toxicity - repeated exposure:

STOT - Repeated exposure

NOAEL 900 mg/kg Oral Rat

Target Organs

Skin

Morphological changes that are potentially reversible but provide clear evidence of marked organ dysfunction.

Aspiration hazard:

Not relevant, due to the form of the product.

General information

Prolonged and repeated contact with solvents over a long period may lead to permanent health problems.

Inhalation

Vapour from this chemical can be hazardous when inhaled. Vapours have a narcotic effect and may cause headache, fatigue, dizziness and nausea.

Ingestion

No harmful effects expected in amounts likely to be ingested by accident.

Skin contact

Contains components which may penetrate the skin. Repeated exposure may cause skin dryness or cracking.

Eye contact

Spray and vapour in the eyes may cause irritation and smarting.

TSRO BROWN BROTHERS RED OXIDE TRADE SPRAY**Health Warnings**

This chemical can be hazardous when inhaled and/or touched. This chemical may cause skin/eye irritation. Prolonged and repeated contact with solvents over a long period may lead to permanent health problems.

Route of entry

Inhalation. Ingestion. Skin and/or eye contact. Skin absorption.

Target Organs

Central nervous system Eyes Skin

Medical Symptoms

Skin irritation. Irritation of eyes and mucous membranes. Central nervous system depression. Drowsiness, dizziness, disorientation, vertigo.

Medical Considerations

Skin disorders and allergies. Pre-existing eye problems.

SECTION 12: ECOLOGICAL INFORMATION**Ecotoxicity**

Dangerous for the environment if discharged into watercourses.

12.1. Toxicity**Acute Toxicity - Fish**

LC50 96 hours 5540 mg/l Onchorhynchus mykiss (Rainbow trout)

Butyl Acetate - norm

EC 50, 48 Hrs, Daphnia, mg/l 44

Acute Toxicity - Aquatic Invertebrates

Not available.

12.2. Persistence and degradability**Degradability**

The product is easily biodegradable. Volatile substances are degraded in the atmosphere within a few days.

12.3. Bioaccumulative potential**Bioaccumulative potential**

The product does not contain any substances expected to be bioaccumulating.

Bioaccumulation factor

BCF 3

Partition coefficient

Not determined.

log Pow -0.24

12.4. Mobility in soil**Mobility:**

The product is soluble in water.

Adsorption/Desorption Coefficient

Not available.

12.5. Results of PBT and vPvB assessment

Not Classified as PBT/vPvB by current EU criteria.

12.6. Other adverse effects

Not available.

SECTION 13: DISPOSAL CONSIDERATIONS

TSRO BROWN BROTHERS RED OXIDE TRADE SPRAY**General information**

Waste is classified as hazardous waste. Disposal to licensed waste disposal site in accordance with the local Waste Disposal Authority. Do not puncture or incinerate even when empty.

13.1. Waste treatment methods

Dispose of waste and residues in accordance with local authority requirements. Confirm disposal procedures with environmental engineer and local regulations.

SECTION 14: TRANSPORT INFORMATION**14.1. UN number**

UN No. (ADR/RID/ADN)	1950
UN No. (IMDG)	1950
UN No. (ICAO)	1950

14.2. UN proper shipping name

Proper Shipping Name AEROSOLS

14.3. Transport hazard class(es)

ADR/RID/ADN Class	2.1
ADR/RID/ADN Class	Class 2: Gases
ADR Label No.	2.1
IMDG Class	2.1
ICAO Class/Division	2.1
Transport Labels	

**14.4. Packing group**

Not applicable.

14.5. Environmental hazards

Environmentally Hazardous Substance/Marine Pollutant
No.

14.6. Special precautions for user

EMS	F-D, S-U
Tunnel Restriction Code	(D)

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not applicable.

SECTION 15: REGULATORY INFORMATION**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

TSRO BROWN BROTHERS RED OXIDE TRADE SPRAY**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), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments. Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 with amendments.

15.2. Chemical Safety Assessment

No chemical safety assessment has been carried out.

SECTION 16: OTHER INFORMATION**Revision Comments**

NOTE: Lines within the margin indicate significant changes from the previous revision.

Revision Date 22/04/2015

Revision 1

Safety Data Sheet Status Approved.

Risk Phrases In Full

R12 Extremely flammable.
R10 Flammable
R20/21 Harmful by inhalation and in contact with skin.
R20 Harmful by inhalation.
R65 Harmful: may cause lung damage if swallowed.
R11 Highly flammable
R36 Irritating to eyes.
R37/38 Irritating to respiratory system and skin.
R37 Irritating to respiratory system.
R38 Irritating to skin.
R66 Repeated exposure may cause skin dryness or cracking.
R41 Risk of serious damage to eyes.
R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R67 Vapours may cause drowsiness and dizziness.

Hazard Statements In Full

H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H315 Causes skin irritation.
H280 Contains gas under pressure; may explode if heated.
H222 Extremely flammable aerosol.
H220 Extremely flammable gas.
H226 Flammable liquid and vapour.
H332 Harmful if inhaled.
H312 Harmful in contact with skin.
H225 Highly flammable liquid and vapour.
H336 May cause drowsiness or dizziness.
H335 May cause respiratory irritation.
EUH066 Repeated exposure may cause skin dryness or cracking.