



Safety Data Sheet

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|---------------------------------------|-------------------|-------------------------|------------|
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This Safety Data Sheet has been prepared in accordance with the REACH Regulation (EC) 1907/2006 and its modifications.

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

1.1. Product identifier

3M Scotch 1633

Product Identification Numbers

DE-2729-1247-3

7100047862

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

Identified uses

Rust remover.

1.3. Details of the supplier of the safety data sheet

| | |
|-------------------|------------------------------------------------------------------------------|
| Address: | 3M United Kingdom PLC, 3M Centre, Cain Road, Bracknell, Berkshire, RG12 8HT. |
| Telephone: | +44 (0)1344 858 000 |
| E Mail: | tox.uk@mmm.com |
| Website: | www.3M.com/uk |

1.4. Emergency telephone number

+44 (0)1344 858 000

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture

CLP REGULATION (EC) No 1272/2008

CLASSIFICATION:

Aerosol, Category 1 - Aerosol 1; H222, H229

Skin Corrosion/Irritation, Category 2 - Skin Irrit. 2; H315

Specific Target Organ Toxicity-Single Exposure, Category 3 - STOT SE 3; H336

Hazardous to the Aquatic Environment (Chronic), Category 2 - Aquatic Chronic 2; H411

For full text of H phrases, see Section 16.

2.2. Label elements**CLP REGULATION (EC) No 1272/2008****SIGNAL WORD**

DANGER.

Symbols:

GHS02 (Flame) | GHS07 (Exclamation mark) | GHS09 (Environment) |

Pictograms**Ingredients:**

| Ingredient | CAS Nbr | EC No. | % by Wt |
|---------------------------------------------|------------|-----------|---------|
| Distillates (petroleum), hydrotreated light | 64742-47-8 | 265-149-8 | 30 - 60 |

HAZARD STATEMENTS:

| | |
|------|--------------------------------------------------|
| H222 | Extremely flammable aerosol. |
| H229 | Pressurised container. may burst if heated. |
| H315 | Causes skin irritation. |
| H336 | May cause drowsiness or dizziness. |
| H411 | Toxic to aquatic life with long lasting effects. |

PRECAUTIONARY STATEMENTS**General:**

| | |
|------|--------------------------------|
| P102 | Keep out of reach of children. |
|------|--------------------------------|

Prevention:

| | |
|-------|------------------------------------------------------------------------------------------------|
| P210A | Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. |
| P211 | Do not spray on an open flame or other ignition source. |
| P251 | Do not pierce or burn, even after use. |

Storage:

| | |
|-------------|--------------------------------------------------------------------------|
| P410 + P412 | Protect from sunlight. Do not expose to temperatures exceeding 50C/122F. |
|-------------|--------------------------------------------------------------------------|

Disposal:

| | |
|------|----------------------------------------------------------------------------------------------------------------|
| P501 | Dispose of contents/container in accordance with applicable local/regional/national/international regulations. |
|------|----------------------------------------------------------------------------------------------------------------|

1% of the mixture consists of components of unknown acute dermal toxicity.

47% of the mixture consists of components of unknown acute inhalation toxicity.

Notes on labelling

Updated per Regulation (EC) No. 648/2004 on detergents. H304 is not required on the label because the product is an aerosol.

Nota L applied to CAS 64742-53-6

2.3. Other hazards

May cause frostbite.

SECTION 3: Composition/information on ingredients

| Ingredient | CAS Nbr | EC No. | REACH Registration No. | % by Wt | Classification |
|--------------------------------------------------------|------------|-----------|------------------------------|---------|----------------------------------------------------------------------------------------------------------------|
| Distillates (petroleum), hydrotreated light | 64742-47-8 | 265-149-8 | | 30 - 60 | Asp. Tox. 1, H304 Aquatic Chronic 2, H411 Flam. Liq. 3, H226; Skin Irrit. 2, H315; STOT SE 3, H336 |
| Distillates (petroleum), hydrotreated light naphthenic | 64742-53-6 | 265-156-6 | | 10 - 30 | Nota L Acute Tox. 4, H332; Asp. Tox. 1, H304 |
| Isobutane | 75-28-5 | 200-857-2 | | 10 - 30 | Flam. Gas 1, H220; Liquified gas, H280 - Nota C,U |
| Propane | 74-98-6 | 200-827-9 | | 10 - 30 | Flam. Gas 1, H220; Liquified gas, H280 - Nota U |
| Butane | 106-97-8 | 203-448-7 | | 1 - 10 | Flam. Gas 1, H220; Liquified gas, H280 - Nota C,U |
| 2-Butoxyethanol | 111-76-2 | 203-905-0 | | 1 - 5 | Acute Tox. 4, H332; Acute Tox. 4, H312; Acute Tox. 4, H302; Skin Irrit. 2, H315; Eye Irrit. 2, H319 |
| Molybdenum disulphide | 1317-33-5 | 215-263-9 | | <= 1 | Substance with a Community level exposure limit in the workplace |

Please see section 16 for the full text of any H statements referred to in this section

For information on ingredient occupational exposure limits or PBT or vPvB status, see sections 8 and 12 of this SDS

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation

Remove person to fresh air. Get medical attention.

Skin contact

Thaw frosted skin with lukewarm water. Do not rub affected area. Get medical attention.

Eye contact

Immediately flush with large amounts of water. Remove contact lenses if easy to do. Continue rinsing. Get medical attention.

If swallowed

Rinse mouth. If you feel unwell, get medical attention.

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

See Section 11.1 Information on toxicological effects

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

Exposure may increase myocardial irritability. Do not administer sympathomimetic drugs unless absolutely necessary.

SECTION 5: Fire-fighting measures

5.1. Extinguishing media

Use a fire fighting agent suitable for the surrounding fire.

5.2. Special hazards arising from the substance or mixture

Closed containers exposed to heat from fire may build pressure and explode.

Hazardous Decomposition or By-Products

| <u>Substance</u> | <u>Condition</u> |
|------------------|--------------------|
| Carbon monoxide. | During combustion. |
| Carbon dioxide. | During combustion. |

5.3. Advice for fire-fighters

Water may not effectively extinguish fire; however, it should be used to keep fire-exposed containers and surfaces cool and prevent explosive rupture. No special protective actions for fire-fighters are anticipated.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Evacuate area. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use only non-sparking tools.

Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapours, in accordance with good industrial hygiene practice. Warning! A motor could be an ignition source and could cause flammable gases or vapours in the spill area to burn or explode. Refer to other sections of this SDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment.

6.2. Environmental precautions

For larger spills, cover drains and build dykes to prevent entry into sewer systems or bodies of water.

6.3. Methods and material for containment and cleaning up

If possible, seal leaking container. Place leaking containers in a well-ventilated area, preferably an operating exhaust hood, or if necessary outdoors on an impermeable surface until appropriate packaging for the leaking container or its contents is available. Contain spill. Cover spill area with a fire-extinguishing foam. An appropriate aqueous film forming foam (AFFF) is recommended. Working from around the edges of the spill inward, cover with bentonite, vermiculite, or commercially available inorganic absorbent material. Mix in sufficient absorbent until it appears dry. Remember, adding an absorbent material does not remove a physical, health, or environmental hazard. Collect as much of the spilled material as possible using non-sparking tools. Place in a metal container approved for transportation by appropriate authorities. Clean up residue with an appropriate solvent selected by a qualified and authorised person. Ventilate the area with fresh air. Read and follow safety precautions on the solvent label and Safety Data Sheet. Seal the container. Dispose of collected material as soon as possible.

6.4. Reference to other sections

Refer to Section 8 and Section 13 for more information

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Keep out of reach of children. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Do not spray on an open flame or other ignition source. Do not pierce or burn, even after use. Do not breathe dust/fume/gas/mist/vapours/spray. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Avoid contact with oxidising agents (eg. chlorine, chromic acid etc.)

7.2. Conditions for safe storage including any incompatibilities

Store in a well-ventilated place. Keep container tightly closed. Protect from sunlight. Do not expose to temperatures exceeding 50C/122F. Store away from heat. Store away from acids. Store away from oxidising agents.

7.3. Specific end use(s)

See information in Section 7.1 and 7.2 for handling and storage recommendations. See Section 8 for exposure controls and personal protection recommendations.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters**Occupational exposure limits**

If a component is disclosed in section 3 but does not appear in the table below, an occupational exposure limit is not available for the component.

| Ingredient | CAS Nbr | Agency | Limit type | Additional comments |
|---------------------------------|----------------|---------------|----------------------------------------------------------------------------|----------------------------|
| Butane | 106-97-8 | UK HSC | TWA:1450 mg/m ³ (600 ppm);STEL:1810 mg/m ³ (750 ppm) | |
| 2-Butoxyethanol | 111-76-2 | UK HSC | TWA:123 mg/m ³ (25 ppm);STEL:246 mg/m ³ (50 ppm) | SKIN |
| Molybdenum, insoluble compounds | 1317-33-5 | UK HSC | TWA(as Mo):10 mg/m ³ ;STEL(as Mo):20 mg/m ³ | |
| Propane | 74-98-6 | UK HSC | Limit value not established: | asphyxiant |

UK HSC : UK Health and Safety Commission

TWA: Time-Weighted-Average

STEL: Short Term Exposure Limit

CEIL: Ceiling

Biological limit values

| Ingredient | CAS Nbr | Agency | Determinant | Biological Specimen | Sampling Time | Value | Additional comments |
|-------------------|----------------|---------------|--------------------|----------------------------|----------------------|--------------|----------------------------|
| 2-Butoxyethanol | 111-76-2 | UK EH40 BMGVs | Butoxyacetic acid | Creatinine in urine | EOS | 240 mmol/mol | |

UK EH40 BMGVs : UK. EH40 Biological Monitoring Guidance Values (BMGVs)

EOS: End of shift.

8.2. Exposure controls**8.2.1. Engineering controls**

Provide ventilated enclosure for heat curing. Curing enclosures must be exhausted to outdoors or to a suitable emission control device. Do not remain in area where available oxygen may be reduced. Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below relevant Exposure Limits and/or control dust/fume/gas/mist/vapours/spray. If ventilation is not adequate, use respiratory protection equipment.

8.2.2. Personal protective equipment (PPE)**Eye/face protection**

Select and use eye/face protection to prevent contact based on the results of an exposure assessment. The following eye/face protection(s) are recommended:

Full face shield.

Indirect vented goggles.

Applicable Norms/Standards

Use eye/face protection conforming to EN 166

Skin/hand protection

Select and use gloves and/or protective clothing approved to relevant local standards to prevent skin contact based on the results of an exposure assessment. Selection should be based on use factors such as exposure levels, concentration of the substance or mixture, frequency and duration, physical challenges such as temperature extremes, and other use conditions. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible gloves/protective clothing. Note: Nitrile gloves may be worn over polymer laminate gloves to improve dexterity. Gloves made from the following material(s) are recommended:

| Material | Thickness (mm) | Breakthrough Time |
|------------------|-------------------|-------------------|
| Polymer laminate | No data available | No data available |

Applicable Norms/Standards

Use gloves tested to EN 374

Respiratory protection

An exposure assessment may be needed to decide if a respirator is required. If a respirator is needed, use respirators as part of a full respiratory protection program. Based on the results of the exposure assessment, select from the following respirator type(s) to reduce inhalation exposure:

Half facepiece or full facepiece air-purifying respirator suitable for organic vapours

Half facepiece or full facepiece supplied-air respirator

Organic vapour respirators may have short service life.

For questions about suitability for a specific application, consult with your respirator manufacturer.

Applicable Norms/Standards

Use a respirator conforming to EN 140 or EN 136

Use a respirator conforming to EN 140 or EN 136: filter type A

Thermal hazards

Wear cold insulating gloves/face shield/eye protection.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | |
|-----------------------------|---------------------------------------------------|
| Physical state | Liquid. |
| Specific Physical Form: | Aerosol |
| Appearance/Odour | Slightly yellow; Petroleum odour. |
| Odour threshold | No data available. |
| pH | Not applicable. |
| Boiling point/boiling range | No data available. |
| Melting point | No data available. |
| Flammability (solid, gas) | Not applicable. |
| Explosive properties | Not classified |
| Oxidising properties | Not classified |
| Flash point | -104 °C [Details:Based on propane] |
| Autoignition temperature | No data available. |
| Flammable Limits(LEL) | 1.2 % volume [Details:Conditions: Propane/Butane] |
| Flammable Limits(UEL) | No data available. |
| Vapour pressure | No data available. |
| Relative density | 0.7 [Ref Std:WATER=1] |
| Water solubility | Nil |

| | |
|-----------------------------------------------|---------------------------|
| Solubility- non-water | <i>No data available.</i> |
| Partition coefficient: n-octanol/water | <i>No data available.</i> |
| Evaporation rate | <i>No data available.</i> |
| Vapour density | <i>No data available.</i> |
| Decomposition temperature | <i>No data available.</i> |
| Viscosity | <i>Not applicable.</i> |

9.2. Other information

| | |
|--------------------------------------|---------------------------|
| EU Volatile Organic Compounds | <i>No data available.</i> |
| Percent volatile | <i>No data available.</i> |

SECTION 10: Stability and reactivity

10.1 Reactivity

This material may be reactive with certain agents under certain conditions - see the remaining headings in this section

10.2 Chemical stability

Stable.

10.3 Possibility of hazardous reactions

Hazardous polymerisation will not occur.

10.4 Conditions to avoid

Heat.

High shear and high temperature conditions

Temperatures above the boiling point.

10.5 Incompatible materials

Strong acids.

Explosive when mixed with oxidizing substances.

10.6 Hazardous decomposition products**Substance****Condition**

None known.

Refer to section 5.2 for hazardous decomposition products during combustion.

SECTION 11: Toxicological information

The information below may not agree with the EU material classification in Section 2 and/or the ingredient classifications in Section 3 if specific ingredient classifications are mandated by a competent authority. In addition, statements and data presented in Section 11 are based on UN GHS calculation rules and classifications derived from 3M assessments.

11.1 Information on Toxicological effects**Signs and Symptoms of Exposure**

Based on test data and/or information on the components, this material may produce the following health effects:

Inhalation

May be harmful if inhaled. Intentional concentration and inhalation may be harmful or fatal. Simple asphyxiation: Signs/symptoms may include increased heart rate, rapid respirations, drowsiness, headache, incoordination, altered

judgement, nausea, vomiting, lethargy, seizures, coma, and may be fatal. Respiratory tract irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain. May cause additional health effects (see below).

Skin contact

Frostbite: Signs/symptoms may include intense pain, discoloration of skin, and tissue destruction. Mild Skin Irritation: Signs/symptoms may include localised redness, swelling, itching, and dryness.

Eye contact

Frostbite: Signs/symptoms may include intense pain, clouding of the cornea, redness, swelling, and blindness.

Ingestion

Gastrointestinal irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhoea. May cause additional health effects (see below).

Additional Health Effects:

Single exposure may cause target organ effects:

Central nervous system (CNS) depression: Signs/symptoms may include headache, dizziness, drowsiness, incoordination, nausea, slowed reaction time, slurred speech, giddiness, and unconsciousness. Cardiac sensitisation: Signs/symptoms may include irregular heartbeat (arrhythmia), faintness, chest pain, and may be fatal.

Toxicological Data

If a component is disclosed in section 3 but does not appear in a table below, either no data are available for that endpoint or the data are not sufficient for classification.

Acute Toxicity

| Name | Route | Species | Value |
|--------------------------------------------------------|--------------------------------|------------|------------------------------------------------|
| Overall product | Dermal | | No data available; calculated ATE >5,000 mg/kg |
| Overall product | Inhalation-Dust/Mist(4 hr) | | No data available; calculated ATE5 - 12.5 mg/l |
| Overall product | Ingestion | | No data available; calculated ATE >5,000 mg/kg |
| Distillates (petroleum), hydrotreated light | Dermal | Rabbit | LD50 > 3,160 mg/kg |
| Distillates (petroleum), hydrotreated light | Inhalation-Dust/Mist (4 hours) | Rat | LC50 > 3 mg/l |
| Distillates (petroleum), hydrotreated light | Ingestion | Rat | LD50 > 5,000 mg/kg |
| Isobutane | Inhalation-Gas (4 hours) | Rat | LC50 276,000 ppm |
| Propane | Inhalation-Gas (4 hours) | Rat | LC50 > 200,000 ppm |
| Distillates (petroleum), hydrotreated light naphthenic | Dermal | Rabbit | LD50 > 2,000 mg/kg |
| Distillates (petroleum), hydrotreated light naphthenic | Inhalation-Dust/Mist (4 hours) | Rat | LC50 2.2 mg/l |
| Distillates (petroleum), hydrotreated light naphthenic | Ingestion | Rat | LD50 > 5,000 mg/kg |
| Butane | Inhalation-Gas (4 hours) | Rat | LC50 277,000 ppm |
| 2-Butoxyethanol | Dermal | Guinea pig | LD50 > 2,000 mg/kg |
| 2-Butoxyethanol | Inhalation-Vapour (4 hours) | Guinea pig | LC50 > 2.6 mg/l |
| 2-Butoxyethanol | Ingestion | Guinea pig | LD50 1,414 mg/kg |

ATE = acute toxicity estimate

3M Scotch 1633**Skin Corrosion/Irritation**

| Name | Species | Value |
|--------------------------------------------------------|------------------------|---------------------------|
| Distillates (petroleum), hydrotreated light | Rabbit | Mild irritant |
| Isobutane | Professional judgement | No significant irritation |
| Propane | Rabbit | Minimal irritation |
| Distillates (petroleum), hydrotreated light naphthenic | Rabbit | Mild irritant |
| Butane | Professional judgement | No significant irritation |
| 2-Butoxyethanol | Rabbit | Irritant |

Serious Eye Damage/Irritation

| Name | Species | Value |
|--------------------------------------------------------|------------------------|---------------------------|
| Distillates (petroleum), hydrotreated light | Rabbit | Mild irritant |
| Isobutane | Professional judgement | No significant irritation |
| Propane | Rabbit | Mild irritant |
| Distillates (petroleum), hydrotreated light naphthenic | Rabbit | Mild irritant |
| Butane | Rabbit | No significant irritation |
| 2-Butoxyethanol | Rabbit | Severe irritant |

Skin Sensitisation

| Name | Species | Value |
|--------------------------------------------------------|------------|----------------|
| Distillates (petroleum), hydrotreated light | Guinea pig | Not classified |
| Distillates (petroleum), hydrotreated light naphthenic | Guinea pig | Not classified |
| 2-Butoxyethanol | Guinea pig | Not classified |

Respiratory Sensitisation

For the component/components, either no data is currently available or the data is not sufficient for classification.

Germ Cell Mutagenicity

| Name | Route | Value |
|--------------------------------------------------------|----------|------------------------------------------------------------------------------|
| Distillates (petroleum), hydrotreated light | In Vitro | Not mutagenic |
| Isobutane | In Vitro | Not mutagenic |
| Propane | In Vitro | Not mutagenic |
| Distillates (petroleum), hydrotreated light naphthenic | In Vitro | Some positive data exist, but the data are not sufficient for classification |
| Distillates (petroleum), hydrotreated light naphthenic | In vivo | Some positive data exist, but the data are not sufficient for classification |
| Butane | In Vitro | Not mutagenic |
| 2-Butoxyethanol | In Vitro | Some positive data exist, but the data are not sufficient for classification |

Carcinogenicity

| Name | Route | Species | Value |
|--------------------------------------------------------|------------|-----------------|------------------------------------------------------------------------------|
| Distillates (petroleum), hydrotreated light | Dermal | Mouse | Some positive data exist, but the data are not sufficient for classification |
| Distillates (petroleum), hydrotreated light naphthenic | Dermal | Mouse | Not carcinogenic |
| 2-Butoxyethanol | Inhalation | Multiple animal | Some positive data exist, but the data are not sufficient for classification |

| | | | |
|--|--|---------|--|
| | | species | |
|--|--|---------|--|

Reproductive Toxicity

Reproductive and/or Developmental Effects

| Name | Route | Value | Species | Test result | Exposure Duration |
|--------------------------------------------------------|------------|----------------------------------------|-------------------------|-----------------------|------------------------------|
| Distillates (petroleum), hydrotreated light naphthenic | Ingestion | Not classified for female reproduction | Rat | NOAEL 1,000 mg/kg/day | premating & during gestation |
| Distillates (petroleum), hydrotreated light naphthenic | Ingestion | Not classified for male reproduction | Rat | NOAEL 1,000 mg/kg/day | premating & during gestation |
| Distillates (petroleum), hydrotreated light naphthenic | Dermal | Not classified for development | Rat | NOAEL 2,000 mg/kg/day | during gestation |
| Distillates (petroleum), hydrotreated light naphthenic | Ingestion | Not classified for development | Rat | NOAEL 1,000 mg/kg/day | premating & during gestation |
| Distillates (petroleum), hydrotreated light naphthenic | Dermal | Not classified for male reproduction | Rabbit | NOAEL 1,000 mg/kg/day | 28 days |
| 2-Butoxyethanol | Dermal | Not classified for development | Rat | NOAEL 1,760 mg/kg/day | during gestation |
| 2-Butoxyethanol | Ingestion | Not classified for development | Rat | NOAEL 100 mg/kg/day | during organogenesis |
| 2-Butoxyethanol | Inhalation | Not classified for development | Multiple animal species | NOAEL 0.48 mg/l | during organogenesis |

Target Organ(s)

Specific Target Organ Toxicity - single exposure

| Name | Route | Target Organ(s) | Value | Species | Test result | Exposure Duration |
|---------------------------------------------|------------|-----------------------------------|------------------------------------------------------------------------------|-------------------------|---------------------|-------------------|
| Distillates (petroleum), hydrotreated light | Inhalation | central nervous system depression | May cause drowsiness or dizziness | Human and animal | NOAEL Not available | |
| Distillates (petroleum), hydrotreated light | Inhalation | respiratory irritation | Some positive data exist, but the data are not sufficient for classification | | NOAEL Not available | |
| Distillates (petroleum), hydrotreated light | Ingestion | central nervous system depression | May cause drowsiness or dizziness | Professional judgement | NOAEL Not available | |
| Isobutane | Inhalation | cardiac sensitisation | Causes damage to organs | Multiple animal species | NOAEL Not available | |
| Isobutane | Inhalation | central nervous system depression | May cause drowsiness or dizziness | Human and animal | NOAEL Not available | |
| Isobutane | Inhalation | respiratory irritation | Not classified | Mouse | NOAEL Not available | |
| Propane | Inhalation | cardiac sensitisation | Causes damage to organs | Human | NOAEL Not available | |
| Propane | Inhalation | central nervous system depression | May cause drowsiness or dizziness | Human | NOAEL Not available | |
| Propane | Inhalation | respiratory irritation | Not classified | Human | NOAEL Not available | |
| Butane | Inhalation | cardiac sensitisation | Causes damage to organs | Human | NOAEL Not available | |
| Butane | Inhalation | central nervous system depression | May cause drowsiness or dizziness | Human and animal | NOAEL Not available | |
| Butane | Inhalation | heart | Not classified | Dog | NOAEL | 25 minutes |

3M Scotch 1633

| | | | | | | |
|-----------------|------------|-----------------------------------|------------------------------------------------------------------------------|-------------------------|---------------------|------------------------|
| | | | | | 5,000 ppm | |
| Butane | Inhalation | respiratory irritation | Not classified | Rabbit | NOAEL Not available | |
| 2-Butoxyethanol | Dermal | endocrine system | Not classified | Rabbit | NOAEL 902 mg/kg | 6 hours |
| 2-Butoxyethanol | Dermal | liver | Not classified | Rabbit | LOAEL 72 mg/kg | not available |
| 2-Butoxyethanol | Dermal | kidney and/or bladder | Not classified | Rabbit | LOAEL 451 mg/kg | 6 hours |
| 2-Butoxyethanol | Dermal | blood | Not classified | Multiple animal species | NOAEL Not available | |
| 2-Butoxyethanol | Inhalation | central nervous system depression | May cause drowsiness or dizziness | Human | NOAEL Not available | |
| 2-Butoxyethanol | Inhalation | respiratory irritation | Some positive data exist, but the data are not sufficient for classification | Human | NOAEL Not available | |
| 2-Butoxyethanol | Inhalation | blood | Not classified | Multiple animal species | NOAEL Not available | |
| 2-Butoxyethanol | Ingestion | central nervous system depression | May cause drowsiness or dizziness | Professional judgment | NOAEL Not available | |
| 2-Butoxyethanol | Ingestion | blood | Not classified | Multiple animal species | NOAEL Not available | |
| 2-Butoxyethanol | Ingestion | kidney and/or bladder | Not classified | Human | NOAEL Not available | poisoning and/or abuse |

Specific Target Organ Toxicity - repeated exposure

| Name | Route | Target Organ(s) | Value | Species | Test result | Exposure Duration |
|-----------------|------------|-------------------------------|----------------|-------------------------|---------------------|-------------------|
| Isobutane | Inhalation | kidney and/or bladder | Not classified | Rat | NOAEL 4,500 ppm | 13 weeks |
| Butane | Inhalation | kidney and/or bladder blood | Not classified | Rat | NOAEL 4,489 ppm | 90 days |
| 2-Butoxyethanol | Dermal | blood | Not classified | Multiple animal species | NOAEL Not available | not available |
| 2-Butoxyethanol | Dermal | endocrine system | Not classified | Rabbit | NOAEL 150 mg/kg/day | 90 days |
| 2-Butoxyethanol | Inhalation | liver | Not classified | Rat | NOAEL 2.4 mg/l | 14 weeks |
| 2-Butoxyethanol | Inhalation | kidney and/or bladder | Not classified | Rat | NOAEL 0.15 mg/l | 14 weeks |
| 2-Butoxyethanol | Inhalation | blood | Not classified | Rat | LOAEL 0.15 mg/l | 6 months |
| 2-Butoxyethanol | Inhalation | endocrine system | Not classified | Dog | LOAEL 1.9 mg/l | 8 days |
| 2-Butoxyethanol | Ingestion | blood | Not classified | Rat | LOAEL 69 mg/kg/day | 13 weeks |
| 2-Butoxyethanol | Ingestion | kidney and/or bladder | Not classified | Multiple animal species | NOAEL Not available | not available |

Aspiration Hazard

| Name | Value |
|--------------------------------------------------------|-------------------|
| Distillates (petroleum), hydrotreated light | Aspiration hazard |
| Distillates (petroleum), hydrotreated light naphthenic | Aspiration hazard |

Please contact the address or phone number listed on the first page of the SDS for additional toxicological information on this material and/or its components.

SECTION 12: Ecological information

The information below may not agree with the EU material classification in Section 2 and/or the ingredient classifications in Section 3 if specific ingredient classifications are mandated by a competent authority. In addition, statements and data presented in Section 12 are based on UN GHS calculation rules and classifications derived from 3M assessments.

12.1. Toxicity

No product test data available.

| Material | CAS Nbr | Organism | Type | Exposure | Test endpoint | Test result |
|--------------------------------------------------------|------------|----------------|-------------------------------------------------------|----------|--------------------------|-------------|
| Distillates (petroleum), hydrotreated light | 64742-47-8 | Rainbow trout | Estimated | 96 hours | Lethal Level 50% | 2 mg/l |
| Distillates (petroleum), hydrotreated light | 64742-47-8 | Green Algae | Estimated | 72 hours | EC50 | 1 mg/l |
| Distillates (petroleum), hydrotreated light | 64742-47-8 | Water flea | Estimated | 48 hours | Effect Level 50% | 1.4 mg/l |
| Distillates (petroleum), hydrotreated light | 64742-47-8 | Water flea | Estimated | 21 days | No obs Effect Level | 0.48 mg/l |
| Distillates (petroleum), hydrotreated light | 64742-47-8 | Green Algae | Estimated | 72 hours | No obs Effect Level | 1 mg/l |
| Distillates (petroleum), hydrotreated light naphthenic | 64742-53-6 | Green algae | Estimated | 96 hours | EC50 | >100 mg/l |
| Distillates (petroleum), hydrotreated light naphthenic | 64742-53-6 | Water flea | Experimental | 48 hours | EC50 | >100 mg/l |
| Isobutane | 75-28-5 | | Data not available or insufficient for classification | | | |
| Propane | 74-98-6 | | Data not available or insufficient for classification | | | |
| Butane | 106-97-8 | | Data not available or insufficient for classification | | | |
| 2-Butoxyethanol | 111-76-2 | Green Algae | Experimental | 72 hours | EC50 | 1,840 mg/l |
| 2-Butoxyethanol | 111-76-2 | Water flea | Experimental | 48 hours | EC50 | 1,550 mg/l |
| 2-Butoxyethanol | 111-76-2 | Rainbow trout | Experimental | 96 hours | LC50 | 1,474 mg/l |
| 2-Butoxyethanol | 111-76-2 | Eastern oyster | Experimental | 96 hours | LC50 | 89.4 mg/l |
| 2-Butoxyethanol | 111-76-2 | Green Algae | Experimental | 72 hours | Effect Concentration 10% | 679 mg/l |
| 2-Butoxyethanol | 111-76-2 | Water flea | Experimental | 21 days | NOEC | 100 mg/l |
| Molybdenum disulphide | 1317-33-5 | | Data not available or insufficient for classification | | | |

12.2. Persistence and degradability

| Material | CAS Nbr | Test type | Duration | Study Type | Test result | Protocol |
|--------------------------------------------------------|------------|-------------------------------------------------------|----------|-------------------------------|-------------------|-------------------------------------|
| Distillates (petroleum), hydrotreated light | 64742-47-8 | Data not available or insufficient for classification | N/A | N/A | N/A | N/A |
| Distillates (petroleum), hydrotreated light naphthenic | 64742-53-6 | Experimental Biodegradation | 28 days | BOD | 42 % weight | OECD 301F - Manometric respirometry |
| Isobutane | 75-28-5 | Experimental Photolysis | | Photolytic half-life (in air) | 13.4 days (t 1/2) | Other methods |
| Propane | 74-98-6 | Experimental | | Photolytic half-life | 27.5 days (t 1/2) | Other methods |

3M Scotch 1633

| | | | | | | |
|-----------------------|-----------|-------------------------------------------------------|---------|-------------------------------|-------------------|-----------------------------------|
| | | Photolysis | | (in air) | 1/2) | |
| Butane | 106-97-8 | Experimental Photolysis | | Photolytic half-life (in air) | 12.3 days (t 1/2) | Other methods |
| 2-Butoxyethanol | 111-76-2 | Experimental Biodegradation | 28 days | CO2 evolution | 90.4 % weight | OECD 301B - Modified sturm or CO2 |
| Molybdenum disulphide | 1317-33-5 | Data not available or insufficient for classification | N/A | N/A | N/A | N/A |

12.3 : Bioaccumulative potential

| Material | CAS Nbr | Test type | Duration | Study Type | Test result | Protocol |
|--------------------------------------------------------|------------|-------------------------------------------------------|----------|------------|-------------|---------------|
| Distillates (petroleum), hydrotreated light | 64742-47-8 | Data not available or insufficient for classification | N/A | N/A | N/A | N/A |
| Distillates (petroleum), hydrotreated light naphthenic | 64742-53-6 | Estimated Bioconcentration | | Log Kow | 5.07 | Other methods |
| Isobutane | 75-28-5 | Experimental Bioconcentration | | Log Kow | 2.76 | Other methods |
| Propane | 74-98-6 | Experimental Bioconcentration | | Log Kow | 2.36 | Other methods |
| Butane | 106-97-8 | Experimental Bioconcentration | | Log Kow | 2.89 | Other methods |
| 2-Butoxyethanol | 111-76-2 | Experimental Bioconcentration | | Log Kow | 0.81 | Other methods |
| Molybdenum disulphide | 1317-33-5 | Data not available or insufficient for classification | N/A | N/A | N/A | N/A |

12.4. Mobility in soil

Please contact manufacturer for more details

12.5. Results of the PBT and vPvB assessment

No information available at this time, contact manufacturer for more details

12.6. Other adverse effects

No information available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

See Section 11.1 Information on toxicological effects

Incinerate in a permitted waste incineration facility. Proper destruction may require the use of additional fuel during incineration processes. Facility must be capable of handling aerosol cans. As a disposal alternative, utilize an acceptable permitted waste disposal facility. Empty drums/barrels/containers used for transporting and handling hazardous chemicals (chemical substances/mixtures/preparations classified as Hazardous as per applicable regulations) shall be considered, stored, treated & disposed of as hazardous wastes unless otherwise defined by applicable waste regulations. Consult with the respective regulating authorities to determine the available treatment and disposal facilities.

The coding of a waste stream is based on the application of the product by the consumer. Since this is out of the control of 3M, no waste code(s) for products after use will be provided. Please refer to the European Waste Code (EWC - 2000/532/EC and amendments) to assign the correct waste code to your waste stream. Ensure national and/or regional regulations are complied with and always use a licensed waste contractor.

EU waste code (product as sold)

070604* Other organic solvents, washing liquids and mother liquors

3M Scotch 1633

16 05 04* Gases in pressure containers (including halons) containing dangerous substances

EU waste code (product container after use)

15 01 04 Metallic packaging

SECTION 14: Transportation information

DE-2729-1247-3

ADR/RID: UN1950, AEROSOLS, LIMITED QUANTITY, 2.1, (E), ADR Classification Code: 5F.

IMDG-CODE: UN1950, AEROSOLS, 2.1, IMDG-Code segregation code: NONE, LIMITED QUANTITY, EMS: FD,SU.

ICAO/IATA: UN1950, AEROSOLS, FLAMMABLE, 2.1.

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****Carcinogenicity****Ingredient**

2-Butoxyethanol

CAS Nbr

111-76-2

Classification

Gr. 3: Not classifiable

Regulation

International Agency
for Research on Cancer

Global inventory status

Contact 3M for more information. The components of this product are in compliance with the chemical notification requirements of TSCA.

List of ingredients according to Annex VII D of the regulation on detergents 648/2004/EC

Hydrotreated light petroleum distillates

Isobutane

Hydrotreated light naphthenic petroleum distillates

Propane

Butane

Butoxyethanol

Molybdenum sulfide

15.2. Chemical Safety Assessment

Not applicable

SECTION 16: Other information**List of relevant H statements**

| | |
|------|-----------------------------------------------------|
| H220 | Extremely flammable gas. |
| H222 | Extremely flammable aerosol. |
| H226 | Flammable liquid and vapour. |
| H229 | Pressurised container. may burst if heated. |
| H280 | Contains gas under pressure; may explode if heated. |
| H302 | Harmful if swallowed. |
| H304 | May be fatal if swallowed and enters airways. |
| H312 | Harmful in contact with skin. |
| H315 | Causes skin irritation. |
| H319 | Causes serious eye irritation. |
| H332 | Harmful if inhaled. |
| H336 | May cause drowsiness or dizziness. |

H411 Toxic to aquatic life with long lasting effects.

Revision information:

Section 01: SAP Material Numbers information was added.
Section 2: Additional label requirements phrase information was deleted.
CLP: Ingredient table information was modified.
CLP Remark(phrase) information was added.
Section 2: EU Detergent Regulation label remarks information was deleted.
Section 2: Indication of danger information information was deleted.
Label: CLP Classification information was modified.
Label: CLP Environmental Hazard Statements information was added.
Label: CLP Percent Unknown information was deleted.
Label: CLP Precautionary - General information was modified.
Label: CLP Precautionary - Prevention information was modified.
Label: CLP Supplemental Hazard Statements information was deleted.
Label: Graphic Text information was deleted.
Label: Graphic information was deleted.
Label: Graphic information was modified.
Label: Signal Word information was modified.
Section 2: Label ingredient information was deleted.
Section 2: Label remarks information was deleted.
Section 2: R phrase reference information was deleted.
Remark (phrase) information was deleted.
Risk phrase information was deleted.
Safety phrase information was deleted.
Section 3: Composition/ Information of ingredients table information was added.
Section 3: Composition/ Information of ingredients table information was deleted.
Section 3: Reference to H statement explanation in Section 016 information was added.
Section 3: Reference to R and H statement explanation in Section 16 information was deleted.
Section 3: Reference to section 15 for Nota info information was deleted.
Section 5: Fire - Advice for fire fighters information information was modified.
Section 6: Accidental release environmental information information was modified.
Section 6: Accidental release personal information information was modified.
Section 8: Occupational exposure limit table information was modified.
Section 9: Property description for optional properties information was added.
Section 9: Property description for optional properties information was deleted.
Section 9: Relative density information information was modified.
Section 11: Acute Toxicity table information was modified.
Section 11: Health Effects - Skin information information was modified.
Section 11: Prolonged or repeated exposure may cause standard phrases information was deleted.
Section 11: Reproductive Toxicity Table information was modified.
Section 11: Single exposure may cause standard phrases information was modified.
Section 11: Skin Sensitization Table information was modified.
Section 11: Target Organs - Repeated Table information was modified.
Section 11: Target Organs - Single Table information was modified.
Section 12: Component ecotoxicity information information was modified.
Section 12: Persistence and Degradability information information was modified.
Section 12: Biocumulative potential information information was modified.
Section 13: Standard Phrase Category Waste GHS information was modified.
Section 16: List of relevant R phrase information information was deleted.
Section 16: List of relevant R-phrases information was deleted.
Two-column table displaying the unique list of H Codes and statements (std phrases) for all components of the given material.
information was modified.

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