SAFETY DATA SHEET

in accordance with 2020/878/EU (REACH, Annex II) 29 CFR 1910.1200, WHMIS 2022 and Safe Work Australia

Revision: 29 January 2025 **Date of previous issue:** 9 December 2022 **SDS No.** 223B-18

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

1.1. Product identifier

388 Synthetic Tapping Fluid (Bulk)

Unique Formula Identifier (UFI): Not required

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

Relevant identified uses: A high-performance, synthetic metal working fluid. Synthetic Tapping fluid provides the industrial performance of conventional petroleum and solvent based fluids while eliminating the hazards normally associated with these traditional products. Effective for all hand and automatic tapping operations and is used for a variety of demanding metal cutting operations over a broad range of metals, including aluminum. Nonflammable.

Uses advised against: No data available

Reason why uses advised against: Not applicable

1.3. Details of the supplier of the safety data sheet

Company:
A.W. CHESTERTON COMPANY
860 Salem Street
Groveland, MA 01834-1507, USA
Tel. +1 978-469-6446
(Mon. - Fri. 8:30 - 5:00 PM EST)
SDS requests: www.chesterton.com
E-mail (SDS questions): ProductSDSs@chesterton.com
E-mail: customer.service@chesterton.com

Canada: A.W. Chesterton Company Ltd., 889 Fraser Drive, Unit 105, Burlington, Ontario L7L 4X8 – Tel. 905-335-5055
EU: Chesterton International GmbH, Am Lenzenfleck 23, D85737 Ismaning, Germany – Tel. +49-89-996-5460

Supplier:

1.4. Emergency telephone number

24 hours per day, 7 days per week
Call Infotrac: 1-800-535-5053
Outside N. America: +1 352-323-3500 (collect)
NSW Poisons Information Centre (Australia): 13 11 26

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

2.1.1. Classification according to Regulation (EC) No 1272/2008 [CLP] / 29 CFR 1910.1200 / WHMIS 2022 / Safe Work Australia / GHS

This product does not meet the criteria for classification in any hazard class according to Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures, 29 CFR 1910.1200, WHMIS 2022 and GHS. However, a safety data sheet is being supplied for it on request as it contains at least one substance posing human health or environmental hazards.

2.1.2. Additional information

None

2.2. Label elements

Labelling according to Regulation (EC) No 1272/2008 [CLP] / 29 CFR 1910.1200 / WHMIS 2022 / Safe Work Australia / GHS

Hazard pictograms: None

Signal word: None

Hazard statements: None

Precautionary statements: None

Supplemental information:

EUH208	Contains 2,2'2''-(Hexahydro-1,3,5-triazine-1,3,5-triyl)triethanol. May produce an allergic reaction.
EUH210	Safety data sheet available on request.

2.3. Other hazards

None known

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures

Hazardous Ingredients[1]	% Wt.	CAS No./ EC No.	REACH Reg. No.	CLP/GHS Classification	SCL, M-factor, ATE
Oxirane, methyl-, polymer with oxirane, monobutyl ether, phosphate	1-5	71662-44-7 Polymer	NA	Aquatic Chronic 3, H412	ATE (oral): > 5,000 mg/kg ATE (dermal): > 2,000 mg/kg
Oleic acid, ethoxylated	1-5	9004-96-0 500-015-7	NA	Skin Irrit. 2, H315 Eye Irrit. 2B, H320 (non-CLP)	ATE (oral): > 25,000 mg/kg
Ethylene oxide-Propylene oxide copolymer monobutyl ether	0.1-<1	9038-95-3 Polymer	NA	Acute Tox. 2, H330 STOT RE 1, H372 (lungs)	ATE (oral): 45,000 mg/kg ATE (dermal): > 20,000 mg/kg ATE (inhalation, mist): 0.106 mg/l
2,2'2''-(Hexahydro-1,3,5-triazine-1,3,5-triyl)triethanol	0.01-<0.1	4719-04-4 225-208-0	NA	Acute Tox. 4, H302 Acute Tox. 2, H330 Skin Sens. 1, H317 Eye Irrit. 2, H319 STOT RE 1, H372 (respiratory system, inhalation)	Skin Sens. 1, H317: C ≥ 0.1% ATE (oral): 928 mg/kg ATE (dermal): > 4,000 mg/kg ATE (inhalation, mist): 0.371 mg/l

For full text of H-statements: see SECTION 16.

[1] Classified according to:
- 29 CFR 1910.1200, 1915, 1916, 1917, Mass. Right-to-Know Law (ch. 40, M.G.L..O. 111F)
- 1272/2008/EC, GHS, REACH
- WHMIS 2022
- Safe Work Australia

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

Inhalation: Remove person to fresh air and keep comfortable for breathing. Contact physician immediately.

Skin contact: Wash skin with soap and water. Contact physician if irritation persists.

Eye contact: Flush eyes for at least 15 minutes with large amounts of water. Contact physician if irritation persists.

Ingestion: Do not induce vomiting. If conscious, drink milk, egg whites, gelatin. Contact physician immediately.

Protection of first-aiders: No special precautions.

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

Direct eye contact will cause minimal eye irritation. This product has the potential for slight skin irritation, rarely irritating to people.

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

Treat symptoms.

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media: Nonflammable. Use extinguishing media suitable for the surrounding fire.

Unsuitable extinguishing media: Not applicable

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products: Not applicable

Other hazards: None known

5.3. Advice for firefighters

Cool exposed containers with water. Recommend Firefighters wear self-contained breathing apparatus.

Australian HAZCHEM Emergency Action Code: Not applicable Not applicable

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Surfaces can be slippery. Evacuate area. Provide adequate ventilation. Utilize exposure controls and personal protection as specified in Section 8.

6.2. Environmental Precautions

No special requirements.

6.3. Methods and material for containment and cleaning up

Contain spill to a small area. Pick up with absorbent material (sand, sawdust, clay, etc.) and place in a suitable container for disposal. Clean with an industrial detergent followed by complete rinsing with water.

6.4. Reference to other sections

Refer to section 13 for disposal advice.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Avoid breathing mist. Do not contaminate with sodium nitrite or other nitrosating agents, which could cause the formation of cancer-causing nitrosamine. Utilize exposure controls and personal protection as specified in Section 8.

7.2. Conditions for safe storage, including any incompatibilities

Store in a cool, dry area. Do not store near food or feed.

7.3. Specific end use(s)

No special precautions.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Occupational exposure limit values

Ingredients	OSHA PEL[1]		ACGIH TLV[2]		UK WEL[3]		AUSTRALIA ES[4]	
	ppm	mg/m³	ppm	mg/m³	ppm	mg/m³	ppm	mg/m³
Oxirane, methyl-, polymer with oxirane, monobutyl ether, phosphate	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Oleic acid, ethoxylated	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Ethylene oxide-Propylene oxide copolymer monobutyl ether	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2,2'2"-(Hexahydro-1,3,5-triazine-1,3,5-triyl)triethanol	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

[1] United States Occupational Health & Safety Administration permissible exposure limits
[2] American Conference of Governmental Industrial Hygienists threshold limit values
[3] EH40 Workplace exposure limits, Health & Safety Executive
[4] Safe Work Australia, Workplace Exposure Standards for Airborne Contaminants

Biological limit values

No biological exposure limits noted for the ingredient(s).

Derived No Effect Level (DNEL) according to Regulation (EC) No 1907/2006:

Workers

Not available

Predicted No Effect Concentration (PNEC) according to Regulation (EC) No 1907/2006:

Not available

8.2. Exposure controls

8.2.1. Engineering measures

Use only in well-ventilated areas.

8.2.2. Individual protection measures

Respiratory protection: Not normally needed. In case of insufficient ventilation, use an approved amine cartridge respirator (e.g., EN filter type A-P).

Protective gloves: Barrier Cream or chemical resistant gloves (e.g., rubber, PVC) as appropriate.

Eye and face protection: Safety glasses

Other: None

8.2.3. Environmental exposure controls

Refer to sections 6 and 12.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical state	low viscosity liquid	**pH**	8.2
Colour	amber	**Kinematic viscosity**	4.9 cSt @ 25°C
Odour	mild odor	**Solubility in water**	complete
Odour threshold	not determined	**Partition coefficient n-octanol/water (log value)**	no data available
Boiling point or range	100°C (212°F)	**Vapour pressure @ 20°C**	not determined
Melting point/freezing point	0°C (32°F)	**Density and/or relative density**	1.02 kg/l
% Volatile (by volume)	85%	**Weight per volume**	8.5 lbs/gal.
Flammability	not applicable	**Vapour density (air=1)**	> 1
Lower/upper flammability or explosion limits	not applicable	**Rate of evaporation (ether=1)**	< 1
Flash point	none	**% Aromatics by weight**	not applicable
Method	PM Closed Cup	**Particle characteristics**	not applicable
Autoignition temperature	not applicable	**Explosive properties**	not applicable
Decomposition temperature	not determined	**Oxidising properties**	not determined

9.2. Other information

None

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

Refer to sections 10.3 and 10.5.

10.2. Chemical stability

Stable

10.3. Possibility of hazardous reactions

No dangerous reactions known under conditions of normal use.

10.4. Conditions to avoid

None

10.5. Incompatible materials

Strong reducers, alkali and strong oxidizers like liquid Chlorine and concentrated Oxygen.

10.6. Hazardous decomposition products

Oxides of Carbon and Nitrogen and other toxic fumes.

SECTION 11: TOXICOLOGICAL INFORMATION

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

Primary route of exposure under normal use: Skin and eye contact.

Acute toxicity -

Oral: Based on available data on components, the classification criteria are not met.

Substance	Test	Result
Oxirane, methyl-, polymer with oxirane, monobutyl ether, phosphate	LD50, rat	> 5,000 mg/kg (read-across)
Oleic acid, ethoxylated	LD50, mouse	> 25,000 mg/kg (1949)
Ethylene oxide-Propylene oxide copolymer monobutyl ether	LD50, rat	45,000 mg/kg

Dermal: Based on available data on components, the classification criteria are not met.

Substance	Test	Result
Oxirane, methyl-, polymer with oxirane, monobutyl ether, phosphate	LD50, rabbit	> 2,000 mg/kg (read-across)
Ethylene oxide-Propylene oxide copolymer monobutyl ether	LD50, rabbit	> 21,140 mg/kg

Inhalation: Based on available data on components, the classification criteria are not met.

ATE-mix = 10.82 mg/l (mist).

Substance	Test	Result
Ethylene oxide-Propylene oxide copolymer monobutyl ether	LC50 inhalation, rat, 4 h	0.106 - 0.26 mg/l (mist)

Skin corrosion/irritation: This product has the potential for slight skin irritation, rarely irritating to people.

Serious eye damage/ irritation: Direct eye contact will cause minimal eye irritation.

Respiratory or skin sensitisation: Ethylene oxide-Propylene oxide copolymer monobutyl ether: a similar material did not cause allergic skin reactions when tested in humans.

Germ cell mutagenicity: No information available

Carcinogenicity: This product contains no carcinogens as listed by the National Toxicology Program (NTP), the International Agency for Research on Cancer (IARC), the Occupational Safety and Health Administration (OSHA) or the European Chemicals Agency (ECHA).

Reproductive toxicity: No information available

STOT – single exposure: Ethylene oxide-Propylene oxide copolymer monobutyl ether: not expected to cause organ damage from a single exposure, based on available data.

STOT – repeated exposure: Not expected to cause toxicity.

Aspiration hazard: Based on available data, the classification criteria are not met.

11.2. Information on other hazards

None

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicological data have not been determined specifically for this product. The information given below is based on a knowledge of the components and the ecotoxicology of similar substances.

12.1. Toxicity

Not expected to be harmful to aquatic organisms. Long term adverse effects to aquatic organisms are not expected.

12.2. Persistence and degradability

Oxirane, methyl-, polymer with oxirane, monobutyl ether, phosphate: Dissolved organic carbon (DOC) 22.5% (28 days). Ethylene oxide-Propylene oxide copolymer monobutyl ether, biodegradation: 7% (OECD 301B, 28 days).

12.3. Bioaccumulative potential

Ethylene oxide-Propylene oxide copolymer monobutyl ether: not expected to bioaccumulate.

12.4. Mobility in soil

Liquid. Soluble in water. In determining environmental mobility, consider the product's physical and chemical properties (see Section 9).

12.5. Results of PBT and vPvB assessment

Not available

12.6. Endocrine disrupting properties

None known

12.7. Other adverse effects

None known

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Incinerate absorbed material with a properly licensed facility. Free product may be amenable to wastewater treatment with organic extraction. Removal of organics with activated carbon or biological treatment may be necessary. Check local, state and national/federal regulations and comply with the most stringent requirement. Unused product is not classified as a hazardous waste according to 2008/98/EC.

SECTION 14: TRANSPORT INFORMATION

14.1. UN number or ID number

ADG/ADR/RID/ADN/IMDG/ICAO: NOT APPLICABLE
TDG: NOT APPLICABLE
US DOT: NOT APPLICABLE

14.2. UN proper shipping name

ADG/ADR/RID/ADN/IMDG/ICAO: NON-HAZARDOUS, NON REGULATED
TDG: NON-HAZARDOUS, NON REGULATED
US DOT: NON-HAZARDOUS, NON REGULATED

14.3. Transport hazard class(es)

ADG/ADR/RID/ADN/IMDG/ICAO: NOT APPLICABLE
TDG: NOT APPLICABLE
US DOT: NOT APPLICABLE

14.4. Packing group

ADG/ADR/RID/ADN/IMDG/ICAO: NOT APPLICABLE
TDG: NOT APPLICABLE
US DOT: NOT APPLICABLE

14.5. Environmental hazards

NOT APPLICABLE

14.6. Special precautions for user

NOT APPLICABLE

14.7. Maritime transport in bulk according to IMO instruments

NOT APPLICABLE

14.8. Other information

NOT APPLICABLE

SECTION 15: REGULATORY INFORMATION

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

15.1.1. EU regulations

Authorisations under Title VII: Not applicable

Restrictions under Title VIII: None

Other EU regulations: None

15.1.2. National regulations

US EPA SARA TITLE III

312 Hazards:	**Chemicals subject to reporting requirements of Section 313 of EPCRA and of 40 CFR 372:**
None	None

TSCA: All chemical components are listed or exempted.

Other national regulations: None

15.2. Chemical safety assessment

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

SECTION 16: OTHER INFORMATION

Abbreviations and acronyms:

ADG: Australian Dangerous Goods Code
ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE: Acute Toxicity Estimate
BCF: Bioconcentration Factor
cATpE: Converted Acute Toxicity point Estimate
CLP: Classification Labelling Packaging Regulation (1272/2008/EC)
ES: Exposure Standard
GHS: Globally Harmonized System
ICAO: International Civil Aviation Organization
IMDG: International Maritime Dangerous Goods
LC50: Lethal Concentration to 50 % of a test population
LD50: Lethal Dose to 50% of a test population
LOEL: Lowest Observed Effect Level
N/A: Not Applicable
NA: Not Available
NOEC: No Observed Effect Concentration
NOEL: No Observed Effect Level
OECD: Organization for Economic Co-operation and Development
PBT: Persistent, Bioaccumulative and Toxic substance
(Q)SAR: Quantitative Structure-Activity Relationship
REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (1907/2006/EC)
REL: Recommended Exposure Limit
RID: Regulations concerning the International Carriage of Dangerous Goods by Rail
SCL: Specific Concentration Limit
SDS: Safety Data Sheet
STEL: Short Term Exposure Limit
STOT RE: Specific Target Organ Toxicity, Repeated Exposure
STOT SE: Specific Target Organ Toxicity, Single Exposure
TDG: Transportation of Dangerous Goods (Canada)
TWA: Time Weighted Average
US DOT: United States Department of Transportation
vPvB: very Persistent and very Bioaccumulative substance
WEL: Workplace Exposure Limit
WHMIS: Workplace Hazardous Materials Information System
Other abbreviations and acronyms can be looked up at www.wikipedia.org.

Key literature references and sources for data:

Commission des normes, de l'équité, de la santé et de la sécurité du travail (CNESST)
Chemical Classification and Information Database (CCID)
European Chemicals Agency (ECHA) - Information on Chemicals
Hazardous Chemical Information System (HCIS)
National Institute of Technology and Evaluation (NITE)
Swedish Chemicals Agency (KEMI)
U.S. National Library of Medicine Toxicology Data Network (TOXNET)

Procedure used to derive the classification for mixtures according to Regulation (EC) No 1272/2008 [CLP] / GHS:

Classification	Classification procedure
Not applicable	Not applicable

Relevant H-statements: H302: Harmful if swallowed.
H315: Causes skin irritation.
H317: May cause an allergic skin reaction.
H319: Causes serious eye irritation.
H320: Causes eye irritation.
H330: Fatal if inhaled.
H372: Causes damage to organs through prolonged or repeated exposure.
H412: Harmful to aquatic life with long lasting effects.

Hazard pictogram names: Not applicable

Further information: None

Date of last revision: 29 January 2025

Changes to the SDS in this revision: Sections 2.1, 2.2, 3, 8.1, 12.6, 16.

This information is based solely on data provided by suppliers of the materials used, not on the mixture itself. No warranty is expressed or implied regarding the suitability of the product for the user's particular purpose. The user must make their own determination as to suitability.