

SAFETY DATA SHEET

in accordance with REACH (1907/2006/EC, as amended by 453/2010/EC) and WHMIS 2015

Revision date: 26 April 2018 Initial date of issue: 4 March 2008 SDS No. 1097-3a

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

1.1. Product identifier

459

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

Laminated Graphite sheet with a Nickel insert. This material is designed for use in high temperature, high pressure, flange applications. It can be used up to 454°C (850°F) in an oxidizing atmosphere and 870°C (1600°F) in a non-oxidizing atmosphere.

1.3. Details of the supplier of the safety data sheet

Company:

Supplier:

A.W. CHESTERTON COMPANY

860 Salem Street

Groveland, MA 01834-1507, USA

Tel.: +1 978-469-6446 Fax: +1 978-469-6785

(Mon. - Fri. 8:30 - 5:00 PM EST)

E-mail (SDS questions): ProductMSDSs@chesterton.com

E-mail: customer.service@chesterton.com SDS requests: www.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

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)

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

2.1.1. Classification according to Regulation (EC) No 1272/2008 [CLP] / WHMIS 2015 / 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.

2.1.2. Classification according to Directive 1999/45/EC

This product does not meet the criteria for classification in any danger category according to Directive 1999/45/EC on classification, packaging and labelling of dangerous preparations.

2.1.3. Classification according to WHMIS 1988

None

2.1.4. Australian classification

Not classified as hazardous according to criteria of Safe Work Australia.

2.1.5. Additional information

This product is not classified as a "hazardous material" in normal use as defined in: 29 CFR 1910.1200, 1915, 1916, 1917, Massachusetts Right-To-Know Law, Chapter 40, Acts and Resolves of 1983 (M.G.L. O. 111F).

2.2. Label elements

Labelling according to Regulation (EC) No 1272/2008 [CLP] / WHMIS 2015 / GHS

Hazard pictograms: N/A
Signal word: None
Hazard statements: None

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Precautionary statements: None **Supplemental information:** None

2.3. Other hazards

None expected in industrial use.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures

% Wt. REACH Classification Hazardous Ingredients¹ CAS No./ Classification

EC No. Reg. No.

(acc. to 1272/2008/EC)

(67/548/EEC)

None

Indications of danger acc. to 67/548/EEC: Not applicable For full text of H-statements and R-phrases: see SECTION 16.

¹Classified according to: * 29 CFR 1910.1200, 1915, 1916, 1917, Mass. Right-to-Know Law (ch. 40, M.G.L..O. 111F), California Proposition 65

* 1272/2008/EC, 67/548/EEC, 99/45/EC, REACH

* WHMIS 2015

* Safe Work Australia [NOHSC: 1008 (2004)]

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

Inhalation: not applicable

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

Eye contact: not applicable Ingestion: not applicable

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

None

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

Treat symptoms.

SECTION 5: FIRE-FIGHTING MEASURES

5.1. Extinguishing media

Carbon Dioxide, dry chemical, water or foam

5.2. Special hazards arising from the substance or mixture

None

5.3. Advice for firefighters

Recommend Firefighters wear self-contained breathing apparatus.

Flammability Classification: not determined **HAZCHEM Emergency Action Code:**

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Utilize exposure controls and personal protection as specified in Section 8.

6.2. Environmental Precautions

None

6.3. Methods and material for containment and cleaning up

No special steps required. Nontoxic.

6.4. Reference to other sections

Refer to section 13 for disposal advice.

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SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Utilize exposure controls and personal protection as specified in Section 8.

7.2. Conditions for safe storage, including any incompatibilities

Store in a dark, cool, dry area.

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 ACGIH TLV UK WEL 2 AUSTRALIA ES 3 ppm mg/m 3 ppm mg/m 3 ppm mg/m 3

None

- ² EH40 Workplace exposure limits, as amended.
- 3 Adopted National Exposure Standards for Atmospheric Contaminants in the Occupational Environment [NOHSC:1003].

8.2. Exposure controls

8.2.1. Engineering measures

not applicable

8.2.2. Individual protection measures

Respiratory protection: Not applicable

Protective gloves: Not normally needed.

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 solid Odour odorless Colour black **Odour threshold** not determined **Initial boiling point** not applicable not applicable Vapour pressure @ 20°C not applicable **Melting point** % Aromatics by weight not applicable % Volatile (by volume) not applicable not applicable Ηq Flash point not applicable Relative density not applicable Method not applicable Weight per volume not applicable Viscosity not applicable Coefficient (water/oil) not applicable **Autoignition temperature** not applicable not applicable Vapour density (air=1) **Decomposition temperature** not determined Rate of evaporation (ether=1) not applicable Upper/lower flammability or not applicable Solubility in water Insoluble

explosive limits

Flammability (solid, gas) not determined **Oxidising properties** not determined **Explosive properties** not determined

9.2. Other information

None

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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. No dangerous reactions known under conditions of normal use.

10.4. Conditions to avoid

Open flames and red hot surfaces.

10.5. Incompatible materials

Fluorine, aqua regia, oleum, fuming Nitric Acid and Hydrochloric Acid and Hydrofluoric Acid when used as a positive electrode.

10.6. Hazardous decomposition products

Carbon Monoxide, Carbon Dioxide and other toxic fumes.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Primary route of exposure skin contact

under normal use:

Acute effects: None
Chronic effects: None

Carcinogenicity: As per 29 CFR 1910.1200 (Hazard Communication), 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 Regulation (EC) No 1272/2008.

Aspiration hazard: Not applicable

Other information: None known

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 determined

12.2. Persistence and degradability

Graphite, Nickel: inorganic substances, exist in nature.

12.3. Bioaccumulative potential

Not determined

12.4. Mobility in soil

Solid. Insoluble 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. Other adverse effects

None known

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Check local, state and national/federal regulations and comply with the most stringent requirement. This product is not classified as a hazardous waste according to 2008/98/EC.

European List of Wastes code: 20 01 40

SECTION 14: TRANSPORT INFORMATION

14.1. UN number

ADR/RID/ADN/IMDG/ICAO: NOT APPLICABLE TDG: NOT APPLICABLE

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US DOT: NOT APPLICABLE

14.2. UN proper shipping name

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)

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

14.4. Packing group

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

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 Hazardous Materials Identification System (HMIS)

312 Hazards: 313 Chemicals:

None

None

None

None

A = Severe Hazard
3 = Serious Hazard
2 = Moderate Hazard
1 = Slight Hazard
0 = Minimal Hazard
* = See Section 8

REACTIV
Personal

HEALTH 0
FLAMMABILITY 0
REACTIVITY 1
Personal Protection *

Other national regulations:

15.2. Chemical safety assessment

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

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SECTION 16: OTHER INFORMATION

Abbreviations ACGIH: American Conference of Governmental Industrial Hygienists

and acronyms: 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

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

NOAEL: No Observed Adverse Effect Level

NOEL: No Observed Effect Level

OSHA: Occupational Health & Safety Administration PBT: Persistent, Bioaccumulative and Toxic substance

PEL: Permissible Exposure Limit

(Q)SAR: Quantitative Structure-Activity Relationship

REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (1907/2006/EC)

RID: Regulations concerning the International Carriage of Dangerous Goods by Rail

SDS: Safety Data Sheet

STEL: Short Term Exposure Limit STOT: Specific Target Organ Toxicity

TDG: Transportation of Dangerous Goods (Canada)

TLV: Threshold Limit Value

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 Commission de la santé et de la sécurité du travail (CSST) and sources for data: European chemical Substances Information System (ESIS)

European Chemicals Agency (ECHA) - Information on Chemicals

Hazardous Substances Data Bank (HSDB) Hazardous Substances Information System (HSIS)

Swedish Chemicals Agency (KEMI)

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

Classification	Classification procedure
Not applicable	Not applicable

Relevant H-statements: None Relevant R-phrases: None

Hazard pictogram names: Not applicable

Changes to the SDS in this revision: Sections 1.3, 2.1, 2.2, 3, 16.

Date of last revision: 26 April 2018

Further information: None

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.