# SAFETY DATA SHEET


| Revision date: | 26 April 2018 | Initial date of issue: | 29 March 2007 | SDS No. | 220A-14a |

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

### 1.1. Product identifier

995 Release Agent (Aerosol)

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

A highly effective, CFC-free release agent formulated for use in all mold applications ranging from sand core operations and investment casting to hard-to-release molding procedure with polyurethanes, rubber, filled thermosplastics and composites.

### 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    Fax: +1 978-469-6785
(Mon. - Fri. 8:30 - 5:00 PM EST)
SDS requests: www.chesterton.com
E-mail (SDS questions): ProductMSDSs@chesterton.com
E-mail: customer.service@chesterton.com

**Supplier:**
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)
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]

- Aerosol 1, H222, H229
- Skin Irrit. 2, H315
- STOT SE 3, H336
- Aquatic Chronic 2, H411

#### 2.1.2. Classification according to 29 CFR 1910.1200 / WHMIS 2015

- Flam. Aerosol 1, H222
- Press. Gas (Comp.), H280
- Skin Irrit. 2, H315
- STOT SE 3, H336
- Aquatic Chronic 2, H411

#### 2.1.3. Classification according to WHMIS 1988

- B5: Flammable aerosols; A: Compressed gases; D2B: Toxic materials causing other effects.

#### 2.1.4. Australian statement of hazardous nature

Hazardous according to criteria of Safe Work Australia.

#### 2.1.5. Additional information

For full text of H-statements: see SECTIONS 2.2 and 16.
PRODUCT: 995 Release Agent (Aerosol)

Date: 26 April 2018

2.2. Label elements

2.2.1. Labelling according to Regulation (EC) No 1272/2008 [CLP]

Hazard pictograms:

Signal word: Danger

Hazard statements:
- H222 Extremely flammable aerosol.
- H229 Pressurized 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:
- P210 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.
- P260 Do not breathe vapours/spray.
- P262 Do not get in eyes, on skin, or on clothing.
- P264 Wash skin thoroughly after handling.
- P273 Avoid release to the environment.
- P280 Wear protective gloves.
- P312 Call a POISON CENTER or doctor/physician if you feel unwell.
- P410/412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C.

Supplemental information: None

2.2.2. Labelling according to 29 CFR 1910.1200 / WHMIS 2015

Hazard pictograms:

Signal word: Danger

Hazard statements:
- H222 Extremely flammable aerosol.
- H280 Contains gas under pressure; may explode if heated.
- H315 Causes skin irritation.
- H336 May cause drowsiness or dizziness.
- H411 Toxic to aquatic life with long lasting effects.

Precautionary statements:
- P210 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.
- P260 Do not breathe vapours/spray.
- P261 Do not get in eyes, on skin, or on clothing.
- P264 Wash skin thoroughly after handling.
- P271 Use only outdoors or in a well-ventilated area.
- P273 Avoid release to the environment.
- P280 Wear protective gloves.
- P302/352 IF ON SKIN: Wash with plenty of soap and water.
- P304/340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
- P312 Call a POISON CENTER or doctor/physician if you feel unwell.
- P332/313 If skin irritation occurs: Get medical advice/attention.
- P362/364 Take off contaminated clothing and wash it before reuse.
- P403 Store in a well-ventilated place.
- P410/412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.
- P501 Dispose of contents/container to an approved waste disposal plant.

Supplemental information: None

2.3. Other hazards

None known
SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

### 3.2. Mixtures

<table>
<thead>
<tr>
<th>Hazardous Ingredients¹</th>
<th>% Wt.</th>
<th>CAS No./EC No.</th>
<th>REACH Reg. No.</th>
<th>CLP/GHS Classification</th>
</tr>
</thead>
</table>

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

* Contains less than 0.1 % w/w Benzene.


SECTION 4: FIRST AID MEASURES

### 4.1. Description of first aid measures

**Inhalation:** Remove to fresh air. If not breathing, administer artificial respiration. Contact physician.

**Skin contact:** Wash skin with soap and water. Take off contaminated clothing and wash it before reuse. 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 large quantities of water. Contact physician immediately.

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

Prolonged or repeated skin contact may defat the skin and cause skin irritation. Direct contact may cause mild eye irritation. Vapor concentrations above recommended exposure levels are irritating to the eyes and the respiratory tract, may cause headaches and dizziness, are anaesthetic and may have other central nervous system effects.

### 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:** Carbon dioxide, dry chemical, foam or water spray

**Unsuitable extinguishing media:** Water jets

### 5.2. Special hazards arising from the substance or mixture

Pressurized containers, when heated, are a potential explosive hazard.

### 5.3. Advice for firefighters

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

**Flammability Classification:** NFPA: Storage Level III; 16 CFR 1500.3 Extremely flammable aerosol

**HAZCHEM Emergency Action Code:** 2 Y

SECTION 6: ACCIDENTAL RELEASE MEASURES

### 6.1. Personal precautions, protective equipment and emergency procedures

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

### 6.2. Environmental Precautions

Keep out of sewers, streams and waterways.
6.3. Methods and material for containment and cleaning up  
Contain spill to a small area. Keep away from sources of ignition - No smoking. If removal of ignition sources is not possible, then flush material away with water. Pick up with absorbent material (sand, sawdust, clay, etc.) and place in a suitable container for disposal.

6.4. Reference to other sections  
Refer to section 13 for disposal advice.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling  
Do not spray on a naked flame or any incandescent material. Keep away from sources of ignition - No Smoking. Utilize exposure controls and personal protection as specified in Section 8. Wash skin thoroughly after handling. Vapors are heavier than air and will collect in low areas. Vapor accumulations could flash and/or explode if ignited.

7.2. Conditions for safe storage, including any incompatibilities  
Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C (120°F). Do not pierce or burn, even after use.

7.3. Specific end use(s)  
No special precautions.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters  

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>OSHA PEL¹</th>
<th>ACGIH TLV²</th>
<th>UK WEL³</th>
<th>AUSTRALIA ES⁴</th>
</tr>
</thead>
<tbody>
<tr>
<td>Naphtha (petroleum), light alkylate*</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Propane</td>
<td>1000</td>
<td>1800</td>
<td>**</td>
<td>-</td>
</tr>
</tbody>
</table>

* Chesterton recommended limit: 241 ppm, 1200mg/m³. **Simple asphyxiant.
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 Adopted National Exposure Standards for Atmospheric Contaminants in the Occupational Environment [NOHSC:1003]

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

<table>
<thead>
<tr>
<th>Substance</th>
<th>Route of exposure</th>
<th>Potential health effects</th>
<th>DNEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydrocarbons, C7-C9, isoalkanes</td>
<td>Inhalation</td>
<td>Chronic effects, systemic</td>
<td>2035 mg/m³</td>
</tr>
<tr>
<td></td>
<td>Dermal</td>
<td>Chronic effects, systemic</td>
<td>773 mg/kg bw/day</td>
</tr>
</tbody>
</table>

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. If necessary, provide explosion-proof ventilation.

8.2.2. Individual protection measures

<table>
<thead>
<tr>
<th>Respiratory protection</th>
<th>Not normally needed. If exposure limits are exceeded, use approved organic vapor respirator (e.g., EN filter type A/P).</th>
</tr>
</thead>
<tbody>
<tr>
<td>Protective gloves</td>
<td>Chemical resistant gloves (e.g. Viton*, neoprene, nitrile). *DuPont's registered trademark.</td>
</tr>
<tr>
<td>Eye and face protection</td>
<td>Safety glasses</td>
</tr>
<tr>
<td>Other</td>
<td>Impervious clothing (e.g. Viton*, neoprene or nitrile) as necessary to prevent skin contact.</td>
</tr>
</tbody>
</table>
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

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>low viscosity liquid</td>
</tr>
<tr>
<td>Colour</td>
<td>clear</td>
</tr>
<tr>
<td>Initial boiling point</td>
<td>116°C (240°F), product only</td>
</tr>
<tr>
<td>Melting point</td>
<td>not applicable</td>
</tr>
<tr>
<td>% Volatile (by volume)</td>
<td>94.5%</td>
</tr>
<tr>
<td>Flash point</td>
<td>&lt; 7°C (&lt;45°F)</td>
</tr>
<tr>
<td>Viscosity</td>
<td>&lt; 100 cps @ 25°C</td>
</tr>
<tr>
<td>Autoignition temperature</td>
<td>not determined</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>no data available</td>
</tr>
<tr>
<td>Upper/lower flammability or</td>
<td>LEL: 1.2, UEL: 9.9</td>
</tr>
<tr>
<td>explosive limits</td>
<td></td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>extremely flammable (propellant)</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>not determined</td>
</tr>
<tr>
<td>Odour</td>
<td>mild petroleum odor</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>not determined</td>
</tr>
<tr>
<td>Vapour pressure @ 20°C</td>
<td>54 mm Hg</td>
</tr>
<tr>
<td>% Aromatics by weight</td>
<td>0%</td>
</tr>
<tr>
<td>pH</td>
<td>not applicable</td>
</tr>
<tr>
<td>Relative density</td>
<td>0.6 kg/l</td>
</tr>
<tr>
<td>Weight per volume</td>
<td>5.3 lbs/gal</td>
</tr>
<tr>
<td>Coefficient (water/oil)</td>
<td>&lt; 1</td>
</tr>
<tr>
<td>Vapour density (air=1)</td>
<td>&gt; 1</td>
</tr>
<tr>
<td>Rate of evaporation (ether=1)</td>
<td>&lt; 1</td>
</tr>
<tr>
<td>Solubility in water</td>
<td>&lt; 1%</td>
</tr>
<tr>
<td>Oxidising properties</td>
<td>not determined</td>
</tr>
</tbody>
</table>

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
Open flames and red hot surfaces.

10.5. Incompatible materials
Strong oxidizers like liquid Chlorine and concentrated Oxygen.

10.6. Hazardous decomposition products
Carbon Monoxide, aldehydes and other toxic fumes (by combustion).

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Primary route of exposure under normal use:
Inhalation, skin and eye contact. Personnel with pre-existing skin and lung disorders are generally aggravated by exposure.

Acute toxicity -

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

<table>
<thead>
<tr>
<th>Substance</th>
<th>Test</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Naphtha (petroleum), light alkylate</td>
<td>LD50, rat</td>
<td>&gt; 5000 mg/kg</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Substance</th>
<th>Test</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Naphtha (petroleum), light alkylate</td>
<td>LD50, rabbit</td>
<td>&gt; 2000 mg/kg</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Substance</th>
<th>Test</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Naphtha (petroleum), light alkylate</td>
<td>LC50, rat, 4 hours</td>
<td>&gt; 21 mg/l (vapor)</td>
</tr>
<tr>
<td>Propane</td>
<td>LC50, rat, 4 hours</td>
<td>658 mg/l</td>
</tr>
</tbody>
</table>

Skin corrosion/irritation: Causes skin irritation.

<table>
<thead>
<tr>
<th>Substance</th>
<th>Test</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Naphtha (petroleum), light alkylate</td>
<td>Skin irritation, rabbit</td>
<td>Moderate irritation</td>
</tr>
</tbody>
</table>

Serious eye damage/irritation: May cause mild eye irritation.

Respiratory or skin sensitisation:

<table>
<thead>
<tr>
<th>Substance</th>
<th>Test</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Naphtha (petroleum), light alkylate</td>
<td>Skin sensitization, OECD 406</td>
<td>Not sensitizing</td>
</tr>
</tbody>
</table>

Germ cell mutagenicity: Naphtha (petroleum), light alkylate: not expected to be a germ cell mutagen, based on test data.

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.

Reproductive toxicity: Naphtha (petroleum), light alkylate: not expected to be a reproductive toxicant, based on data from similar materials.

STOT-single exposure: May cause drowsiness or dizziness.

STOT-repeated exposure: Naphtha (petroleum), light alkylate: not expected to cause organ damage from prolonged or repeated exposure, based on test data.

Aspiration hazard: Not classified as an aspiration toxicant due to the aerosol spray pattern.

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
Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment, based on data from similar materials.

12.2. Persistence and degradability
Naphtha (petroleum), light alkylate: expected to be inherently biodegradable (ready biodegradability, 28 days: 22%). Naphtha (petroleum), light alkylate, Propane: expected to degrade rapidly in air.

12.3. Bioaccumulative potential
Propane: bioconcentration in aquatic organisms is not expected to be significant.

12.4. Mobility in soil
Liquid. Solubility in water: < 1%. In determining environmental mobility, consider the product’s physical and chemical properties (see Section 9). The hazardous ingredients will rapidly evaporate to the air if released into the environment.

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
Incinerate absorbed material in an approved area. Incinerate pressurized containers at an approved facility. Check local, state and national/federal regulations and comply with the most stringent requirement. This product is classified as a hazardous waste according to 2008/98/EC.

SECTION 14: TRANSPORT INFORMATION

14.1. UN number
ADR/RID/ADN/IMDG/ICAO: UN1950
TDG: UN1950
US DOT: UN1950

14.2. UN proper shipping name
ICAO: Aerosols, Flammable
IMDG: Aerosols
ADR/RID/ADN: Aerosols, flammable
TDG: Aerosols, flammable
US DOT: Aerosols, flammable
14.3. Transport hazard class(es)
   ADR/RID/ADN/IMDG/ICAO: 2.1
   TDG: 2.1
   US DOT: 2.1

14.4. Packing group
   ADR/RID/ADN/IMDG/ICAO: NOT APPLICABLE
   TDG: NOT APPLICABLE
   US DOT: NOT APPLICABLE

14.5. Environmental hazards
   NO ENVIRONMENTAL HAZARDS

14.6. Special precautions for user
   NO SPECIAL PRECAUTIONS FOR USER

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code
   NOT APPLICABLE

14.8. Other information
   US DOT: Shipped as Consumer Commodity ORM-D in packaging having a rated capacity gross weight of 66 lb. or less (49 CFR 173.306(i)). ERG NO. 126
   IMDG: EmS. F-D, S-U. Shipped as Limited Quantity
   ADR: Classification code 5F, Tunnel restriction code (E). Shipped as Limited Quantity

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

15.1.2. National regulations

   US EPA SARA TITLE III

   312 Hazards: 313 Chemicals:
   Immediate None
   Fire
   Pressure Release

   Other national regulations: National implementation of the EC Directive referred to in section 15.1.1.

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:

- 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
- 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](http://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]:

<table>
<thead>
<tr>
<th>Classification</th>
<th>Classification procedure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aerosol 1, H222</td>
<td>On basis of components</td>
</tr>
<tr>
<td>STOT SE 3, H336</td>
<td>Calculation method</td>
</tr>
<tr>
<td>Skin Irrit. 2, H315</td>
<td>Calculation method</td>
</tr>
<tr>
<td>Aquatic Chronic 2, H411</td>
<td>Calculation method</td>
</tr>
</tbody>
</table>

### Relevant H-statements:

- H220: Extremely flammable gas.
- H225: Highly flammable liquid and vapour.
- H280: Contains gas under pressure; may explode if heated.
- H315: Causes skin irritation.
- H304: May be fatal if swallowed and enters airways.
- H336: May cause drowsiness or dizziness.
- H411: Toxic to aquatic life with long lasting effects.

### Hazard pictogram names:

- Flame, gas cylinder (non-CLP labelling) exclamation mark, environment

### Changes to the SDS in this revision:

- Section 1.3.

### Revision date:

- 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.