



SAFETY DATA SHEET

in accordance with 1907/2006/EC (REACH, as amended by 453/2010/EC) and 29 CFR 1910.1200

Revision date: 11 May 2015

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SDS No. 217-11

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

1.1. Product identifier

989 Release Compound

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

Provides multiple releases with one application for sand core operations, investment casting, polyurethanes, epoxies, other plastics and rubber. Release Compound can be used with molds of aluminum, steel, etc., cast, compression or injection.

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:

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] / 29 CFR 1910.1200 / WHMIS 2015 / GHS

Aquatic Chronic 3, H412

2.1.2. Classification according to Directives 1999/45/EC and 1975/324/EEC

R52/53

2.1.3. Classification according to WHMIS 1988

None

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 and R-phrases: see SECTIONS 2.2 and 16.

2.2. Label elements

Labelling according to Regulation (EC) No 1272/2008 [CLP] / 29 CFR 1910.1200 / WHMIS 2015 / GHS

Hazard pictograms: N/A

Signal word: None

Hazard statements: H412 Harmful to aquatic life with long lasting effects.

Precautionary statements: P273 Avoid release to the environment.
P501 Dispose of contents/container to an approved waste disposal plant.

Supplemental information: EUH208 Contains 7a-Ethylidihydro-1H, 3H, 5H-oxazolo [3,4-c] oxazole. May produce an allergic reaction.

2.3. Other hazards

Direct eye contact causes slight eye irritation. Inhalation of mists or vapors formed at elevated temperatures may cause irritation to eyes and respiratory tract.

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

Hazardous Ingredients ¹	% Wt.	CAS No./ EC No.	REACH Reg. No.	Classification (CLP/GHS)	Classification (67/548/EEC)
Nonylphenoxypoly(ethyleneoxy)ethanol	1-5	68412-54-4 500-209-1	NA	Eye Irrit. 2A, H319 Skin Irrit. 2, H315 Aquatic Chronic 2, H411	Xi; R36/38 N; R51/53
7a-Ethyldihydro-1H, 3H, 5H-oxazolo [3,4-c] oxazole	0.01-0.05	7747-35-5 231-810-4	NA	Acute Tox. 4, H332 Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1A, H317 Aquatic Chronic 3, H412	Xn; R20 Xi; R38-41-43

Indications of danger acc. to 67/548/EEC: Xi: Irritant; N: Dangerous for the environment; Xn: Harmful
For full text of H-statements and R-phrases: 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), 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: Remove to fresh air. If not breathing, administer artificial respiration. Contact physician.
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 large quantities of water. Contact physician immediately.

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

Direct eye contact causes slight eye irritation. Inhalation of mists or vapors formed at elevated temperatures may cause irritation to eyes and respiratory tract. Prolonged or repeated skin contact may defat the skin and cause skin irritation.

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, 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: –

HAZCHEM Emergency Action Code: 3 **Z**

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. Evacuate area. Provide adequate ventilation.

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.

6.4. Reference to other sections

Refer to section 13 for disposal advice.

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 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 ¹		ACGIH TLV ²		UK WEL ³		AUSTRALIA ES ⁴	
	ppm	mg/m ³	ppm	mg/m ³	ppm	mg/m ³	ppm	mg/m ³
Nonylphenoxy poly(ethyleneoxy) ethanol	–	–	–	–	–	–	–	–
7a-Ethyldihydro-1H, 3H, 5H-oxazolo [3,4-c] oxazole	–	–	–	–	–	–	–	–

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].

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

No special requirements.

8.2.2. Individual protection measures

Respiratory protection: Not normally needed. If necessary, utilize an approved organic vapor respirator (e.g., EN filter type A/P).

Protective gloves: Chemical resistant gloves.

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	liquid	Odour	not applicable
Colour	milky white	Odour threshold	not determined
Initial boiling point	100°C (212°F)	Vapour pressure @ 20°C	not determined
Melting point	not determined	% Aromatics by weight	not determined
% Volatile (by volume)	82%	pH	8.5 – 9.0
Flash point	> 93°C (> 200°F)	Relative density	0.995 kg/l
Method	PM Closed Cup	Weight per volume	8.3 lbs/gal.
Viscosity	not determined	Coefficient (water/oil)	> 1
Autoignition temperature	not determined	Vapour density (air=1)	> 1
Decomposition temperature	no data available	Rate of evaporation (ether=1)	< 1
Upper/lower flammability or explosive limits	not applicable	Solubility in water	soluble
Flammability (solid, gas)	not applicable	Oxidising properties	not applicable
Explosive properties	not applicable		

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 reducing agents and strong oxidizers like liquid Chlorine and concentrated Oxygen.

10.6. Hazardous decomposition products

None

SECTION 11: TOXICOLOGICAL INFORMATION**11.1. Information on toxicological effects****Primary route of exposure under normal use:** Inhalation, skin and eye contact.**Acute effects:** Direct eye contact causes slight eye irritation. Inhalation of mists or vapors formed at elevated temperatures may cause irritation to eyes and respiratory tract.

Substance	Test	Result
Nonylphenoxypoly(ethyleneoxy)ethanol	LD50 oral, rat	1980 mg/kg
Nonylphenoxypoly(ethyleneoxy)ethanol	LD50 dermal, rabbit	> 3000 mg/kg, estimated
Nonylphenoxypoly(ethyleneoxy)ethanol	Eye irritation, rabbit	severe
Nonylphenoxypoly(ethyleneoxy)ethanol	Skin irritation, rabbit	severe
7a-Ethylidihydro-1H, 3H, 5H-oxazolo [3,4-c] oxazole	LC50 inhal, rat	3.1 mg/l 8 hours
7a-Ethylidihydro-1H, 3H, 5H-oxazolo [3,4-c] oxazole	LD50 oral, rat	> 3600 mg/kg
7a-Ethylidihydro-1H, 3H, 5H-oxazolo [3,4-c] oxazole	LC50 dermal, rabbit	1948 mg/kg

Chronic effects: Prolonged or repeated skin contact may defat the skin and cause skin irritation.

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 classified as an aspiration toxicant.
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

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

12.2. Persistence and degradability

Nonylphenoxy poly(ethyleneoxy) ethanol: not readily biodegradable 7a-Ethyldihydro-1H, 3H, 5H-oxazolo [3,4-c] oxazole: OECD 301D (28 Days): 27% Biodegradability.

12.3. Bioaccumulative potential

7a-Ethyldihydro-1H, 3H, 5H-oxazolo [3,4-c] oxazole: low potential for bioaccumulation.

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. Other adverse effects

None known

SECTION 13: DISPOSAL CONSIDERATIONS**13.1. Waste treatment methods**

Incinerate absorbed material. Liquids may be amenable for water treatment with absorption of organics after neutralization. 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.

European List of Wastes code: 06 08 99

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

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

TDG: NOT APPLICABLE

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**

312 Hazards:	313 Chemicals:
Immediate	None

Hazardous Materials Identification System (HMIS)

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

HEALTH	1
FLAMMABILITY	0
PHYSICAL HAZARD	1
Personal Protection	*

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: 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
 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)
 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)
 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 de la santé et de la sécurité du travail (CSST)
 Chemical Classification and Information Database (CCID)
 European Chemicals Agency (ECHA) - Information on Chemicals
 Hazardous Substances Information System (HSIS)
 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:

Classification	Classification procedure
Aquatic Chronic 3, H412	Calculation method

Relevant H-statements: H332: Harmful if inhaled.
H318: Causes serious eye damage.
H317: May cause an allergic skin reaction.
H412: Harmful to aquatic life with long lasting effects.
H315: Causes skin irritation.
H319: Causes serious eye irritation.
H411: Toxic to aquatic life with long lasting effects.

Relevant R-phrases: R41: Risk of serious damage to eyes.
R43: May cause sensitisation by skin contact.
R36/38: Irritating to eyes and skin.
R51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R20: Harmful by inhalation.

Hazard pictogram names: None

Changes to the SDS in this revision: Section 2.2.

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.