

SECTION 1 Identification

1.1. GHS Product identifier

Product form : Mixture
Product name : A/C ReStart
Product code : 4060-55, 4060-56

1.2. Other means of identification

No additional information available

1.3. Recommended use of the chemical and restrictions on use

Recommended use : Acid neutralizer

1.4. Supplier's details

Manufacturer

Nu-Calgon
2611 Schuetz Road
St. Louis, MO
63043
US
T 314-469-7000 / 800-554-5499
www.nucalgon.com

1.5. Emergency phone number

Emergency number : 1-800-424-9300 (CHEMTREC)

SECTION 2 Hazard identification

2.1. Classification of the substance or mixture

Classification (GHS CA/US)

Flammable liquids, Category 4
Acute toxicity (oral), Category 4
Reproductive toxicity, Category 1B
Specific target organ toxicity, Repeated exposure, Category 1

Combustible liquid.
Harmful if swallowed.
May damage fertility or the unborn child.
Causes damage to organs through prolonged or repeated exposure.

2.2. GHS label elements, including precautionary statements

GHS CA/US labeling

Hazard pictograms (GHS CA/US)



Signal word (GHS CA/US)

: Danger

Hazard statements (GHS CA/US)

: Combustible liquid
Harmful if swallowed
May damage fertility or the unborn child
Causes damage to organs through prolonged or repeated exposure.

Precautionary statements (GHS CA/US)

: Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.

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According to SOR/2015-17, Hazardous Products Regulations (HPR) (amended 2022) & According to 29 CFR § 1910.1200, Hazard Communication Standard (HCS) (amended 2024)

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Do not breathe vapors.
Wash hands, forearms and face thoroughly after handling.
Do not eat, drink or smoke when using this product.
Wear protective gloves, protective clothing, eye protection, face protection, and hearing protection.
IF exposed or concerned: Get medical advice or attention.
IF SWALLOWED: Call a POISON CENTER or a doctor if you feel unwell.
Rinse mouth.
In case of fire: Use appropriate media to extinguish.
Store in a well-ventilated place.
Store locked up.
Dispose of contents and/or container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulations.

2.3. Other hazards which do not result in classification

No additional information available

SECTION 3 Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Chemical name / Synonyms	Product identifier	%
Benzenamine, N,N'-methanetetraylbis[2,6-bis(1-methylethyl)-	Bis(2,6-diisopropylphenyl)carbodiimide / 2,2',6,6'-Tetraisopropyl-diphenylcarbodiimide / N,N'-Bis(2,6-diisopropylphenyl)carbodiimide	CAS-No.: 2162-74-5	15 - 40

Comments : CANADA GHS: The exact percentage (concentration) of composition has been withheld as a trade secret in accordance with the amended HPR as of December 2022.
US GHS: The exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200.

SECTION 4 First-aid measures

4.1. Description of necessary first-aid measures

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. If you feel unwell, seek medical advice.

First-aid measures after skin contact : Wash skin with plenty of water. Obtain medical attention if irritation persists.

First-aid measures after eye contact : Rinse eyes with water as a precaution. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention if irritation persists.

First-aid measures after ingestion : IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell. Rinse mouth. Do not induce vomiting. If vomiting occurs have person lean forward. Never give anything by mouth to an unconscious person.

First-aid measures general : IF exposed or concerned: Get medical advice or attention. Call a poison center or a doctor if you feel unwell. If you feel unwell, seek medical advice (show the label where possible). Medical personnel should be made aware of substance(s) involved and take measures for self protection. Show this safety data sheet to the doctor in attendance. Avoid contact with skin and eyes. Keep out of the reach of children.

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According to SOR/2015-17, Hazardous Products Regulations (HPR) (amended 2022) & According to 29 CFR § 1910.1200, Hazard Communication Standard (HCS) (amended 2024)

4.2. Most important symptoms/effects, acute and delayed

Symptoms/effects after inhalation	: Prolonged inhalation may be harmful.
Symptoms/effects after skin contact	: Prolonged or repeated contact may dry skin and cause irritation.
Symptoms/effects after eye contact	: Direct contact with eyes may cause temporary irritation.
Symptoms/effects after ingestion	: Harmful if swallowed. May cause stomach distress, nausea or vomiting.
Chronic symptoms	: May damage fertility or the unborn child. Causes damage to organs through prolonged or repeated exposure.

4.3. Indication of immediate medical attention and special treatment needed, if necessary

Other medical advice or treatment	: Symptoms may be delayed. Treat symptomatically.
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SECTION 5 Fire-fighting measures

5.1. Suitable extinguishing media

Suitable extinguishing media	: Foam. Dry chemical powder. Carbon dioxide.
Unsuitable extinguishing media	: Do not use a water jet since it may cause the fire to spread.

5.2. Specific hazards arising from the chemical

Fire hazard	: Combustible liquid. During fire, gases hazardous to health may be formed. In case of fire or explosion do not breathe fumes.
Explosion hazard	: No direct explosion hazard.
Hazardous decomposition products in case of fire	: May include and are not limited to: oxides of carbon.

5.3. Special protective actions for fire-fighters

Firefighting instructions	: In case of fire: Stop leak if safe to do so. Do not enter fire area without proper protective equipment, including respiratory protection. Move containers from fire area if it can be done without personal risk.
Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6 Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures	: In the event of a significant spillage : Notify authorities if product enters sewers or public waters. Keep unnecessary personnel away. For personal protection, see section 8 of the SDS.
Environmental precautions	: Avoid release to the environment. Notify authorities if product enters sewers or public waters.

6.2. Methods and materials for containment and cleaning up

For containment	: Stop leaks if it can be done without personal risk. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.
Methods for cleaning up	: Soak up with inert absorbent material (for example sand, sawdust, a universal binder, silica gel). Clean contaminated surfaces with an excess of water.
Other information	: This material and its container must be disposed of in a safe way, and as per local legislation.

For further information refer to section 13

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According to SOR/2015-17, Hazardous Products Regulations (HPR) (amended 2022) & According to 29 CFR § 1910.1200, Hazard Communication Standard (HCS) (amended 2024)

SECTION 7 Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling	: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Wear personal protective equipment. Avoid contact with skin and eyes. Do not breathe vapors, mist. Do not taste or swallow. Ensure good ventilation of the work station. Handle and open container with care.
Hygiene measures	: Separate working clothes from town clothes. Launder separately. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions	: Keep out of reach of children. Store tightly closed in a dry, cool and well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS). Store locked up.
Packaging materials	: Store always product in container of same material as original container.

SECTION 8 Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Appropriate engineering controls

Appropriate engineering controls	: Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.
Environmental exposure controls	: Avoid release to the environment.

8.3. Individual protection measures, such as personal protective equipment (PPE)

Hand protection:

Wear protective gloves. Confirm with a reputable supplier first.

Eye protection:

Wear eye protection

Skin and body protection:

Wear suitable protective clothing. As required by employer code.

Respiratory protection:

Use respiratory protection. Where exposure guideline levels may be exceeded, use an approved NIOSH respirator. Respirator should be selected by and used under the direction of a trained health and safety professional following requirements found in OSHA's respirator standard (29 CFR 1910.134), CAN/CSA-Z94.4 and ANSI's standard for respiratory protection (Z88.2).

SECTION 9 Physical and chemical properties

9.1. Basic physical and chemical properties

Physical state	: Liquid
Appearance	: Clear.

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According to SOR/2015-17, Hazardous Products Regulations (HPR) (amended 2022) & According to 29 CFR § 1910.1200, Hazard Communication Standard (HCS) (amended 2024)

Color	: Straw
Odor	: No data available
Odor threshold	: No data available
pH	: No data available
Relative evaporation rate (butyl acetate=1)	: No data available
Relative evaporation rate (ether=1)	: No data available
Melting point	: Not applicable
Freezing point	: No data available
Boiling point	: 315 °C (599 °F)
Flash point	: 64.9 °C (148.9 °F)
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapor pressure	: No data available
Relative vapor density at 20°C	: No data available
Relative density	: 0.88
Solubility	: Insoluble.
Partition coefficient n-octanol/water (Log Pow)	: No data available
Viscosity, kinematic	: No data available
Explosive properties	: Not explosive.
Oxidizing properties	: Not oxidising.
Explosion limits	: No data available
Particle characteristics	: No data available

9.2. Data relevant with regard to physical hazard classes (supplemental)

No additional information available

SECTION 10 Stability and reactivity

Reactivity	: The product is non-reactive under normal conditions of use, storage and transport.
Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: No dangerous reactions known under normal conditions of use.
Conditions to avoid	: Heat. No flames, no sparks. Eliminate all sources of ignition. Do not mix with other chemicals.
Incompatible materials	: Strong oxidizing agents. Acids. Caustic.
Hazardous decomposition products	: May include and are not limited to: oxides of carbon. Nitrogen oxides. Hydrogen cyanide.

SECTION 11 Toxicological information

11.1. Likely routes of exposure

Acute toxicity (oral)	: Harmful if swallowed.
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

A/C ReStart	
ATE CA (oral)	500 mg/kg body weight
Benzenamine, N,N'-methanetetraylbis[2,6-bis(1-methylethyl)- (2162-74-5)	
LD50 oral rat	200 mg/kg (Source: NLM_CIP)
LD50 dermal rat	> 2000 mg/kg (Source: ECHA_API)
ATE CA (oral)	200 mg/kg body weight
Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitization	: Not classified

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Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: May damage fertility or the unborn child.
STOT-single exposure	: Not classified
STOT-repeated exposure	: Causes damage to organs through prolonged or repeated exposure.

Benzenamine, N,N'-methanetetraylbis[2,6-bis(1-methylethyl)- (2162-74-5)

NOAEL (oral,rat,90 days)	4 mg/kg body weight Animal: rat, Guideline: OECD Guideline 407 (Repeated Dose 28-Day Oral Toxicity Study in Rodents)
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Aspiration hazard	: Not classified
Likely routes of exposure	: Skin and eye contact. Ingestion. Inhalation.
Symptoms/effects after inhalation	: Prolonged inhalation may be harmful.
Symptoms/effects after skin contact	: Prolonged or repeated contact may dry skin and cause irritation.
Symptoms/effects after eye contact	: Direct contact with eyes may cause temporary irritation.
Symptoms/effects after ingestion	: Harmful if swallowed. May cause stomach distress, nausea or vomiting.
Chronic symptoms	: May damage fertility or the unborn child. Causes damage to organs through prolonged or repeated exposure.

SECTION 12 Ecological information

12.1. Toxicity

Ecology - general	: See below for route-specific details.
Hazardous to the aquatic environment, short-term (acute)	: Not classified
Hazardous to the aquatic environment, long-term (chronic)	: Not classified

Benzenamine, N,N'-methanetetraylbis[2,6-bis(1-methylethyl)- (2162-74-5)

LC50 - Fish [1]	> 0.1 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [semi-static] Source: ECHA)
EC50 - Crustacea [1]	0.004 mg/l Test organisms (species): Daphnia magna
EC50 72h - Algae [1]	> 0.0085 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)

12.2. Persistence and degradability

A/C ReStart	
Persistence and degradability	Rapidly degradable
Benzenamine, N,N'-methanetetraylbis[2,6-bis(1-methylethyl)- (2162-74-5)	
Persistence and degradability	Rapidly degradable

12.3. Bioaccumulative potential

Benzenamine, N,N'-methanetetraylbis[2,6-bis(1-methylethyl)- (2162-74-5)	
Partition coefficient n-octanol/water (Log Pow)	> 6.2 (at 30 °C (at pH 7)

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Ozone	: Not classified
Fluorinated greenhouse gases	: No

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According to SOR/2015-17, Hazardous Products Regulations (HPR) (amended 2022) & According to 29 CFR § 1910.1200, Hazard Communication Standard (HCS) (amended 2024)

SECTION 13 Disposal considerations

Waste treatment methods	: Dispose of the material collected according to regulations.
Sewage disposal recommendations	: Disposal must be done according to official regulations.
Product/Packaging disposal recommendations	: Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling, disposal or collection.

SECTION 14 Transport information

In accordance with TDG / DOT

General information: DOT - 49 CFR 173.150 (f) - Combustible Liquid Exemption

TDG	DOT
14.1. UN Number	
Not regulated	Not regulated
14.2. UN Proper Shipping Name	
Not regulated	Not regulated
14.3. Transport hazard class(es)	
Not regulated	Not regulated
14.4. Packing group, if applicable	
Not regulated	Not regulated
14.5. Environmental hazards	
Not regulated	Not regulated
No supplementary information available	

14.6. Special precautions for user

TDG

Not regulated

DOT

Not regulated

14.7. Transport in bulk according to Annex II of MARPOL 73/789(^9) and the IBC Code(^10)

Not applicable

SECTION 15 Regulatory information

All components of this product are present on DSL

All components of this product are present and listed as Active on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

This product or mixture is not known to contain a toxic chemical or chemicals in excess of the applicable de minimis concentration as specified in 40 CFR §372.38(a) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

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California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

SECTION 16 Other Information

Issue date : 08/01/2025

Other information : For an updated SDS, please contact the supplier or manufacturer listed on the first page of the document.

Prepared by: Nu-Calgon Technical Service Phone: (314) 469-7000.

The information in the safety data sheet was written based on the best knowledge and experience currently available. Information contained herein was obtained from sources considered technically accurate and reliable. While every effort has been made to ensure full disclosure of product hazards, in some cases data is not available and is so stated. Since conditions of actual product use are beyond control of the supplier, it is assumed that users of this material have been fully trained according to the requirements of all applicable legislation and regulatory instruments. No warranty, expressed or implied, is made and supplier will not be liable for any losses, injuries or consequential damages which may result from the use of or reliance on any information contained in this document.