

# SAFETY DATA SHEET

1. Identification

Product identifier A/C ReStart (4060-55, 4060-56)

Other means of identificationNot available.Recommended useAcid neutralizerRecommended restrictionsNone known.Manufacturer informationNu-Calgon

2611 Schuetz Road St. Louis, MO 63043 US

Phone: 314-469-7000 / 800-554-5499

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

Supplier See above.

2. Hazard identification

Physical hazardsFlammable liquidsCategory 4Health hazardsAcute toxicity, oralCategory 4Reproductive toxicityCategory 1BSpecific target organ toxicity, repeatedCategory 1

exposure

Environmental hazards Not classified.

WHMIS 2015 defined hazards Not classified

Label elements



Signal word Danger

Hazard statement Combustible liquid. Harmful if swallowed. May damage fertility or the unborn child. Causes

damage to organs through prolonged or repeated exposure.

**Precautionary statement** 

**Prevention** 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 protective gloves, protective clothing, eye protection and face protection. Wash thoroughly after handling. Do not eat, drink or smoke when using this product.

Do not breathe mist or vapor.

Response In case of fire: Use appropriate media to extinguish. IF SWALLOWED: Call a POISON CENTER

or doctor if you feel unwell. Rinse mouth. IF exposed or concerned: Get medical attention.

**Storage** Store in a well-ventilated place. Store locked up.

**Disposal** Dispose of container in accordance with local, regional, national and international regulations.

WHMIS 2015: Health Hazard(s)

not otherwise classified

(HHNOC)

WHMIS 2015: Physical Hazard(s) not otherwise

classified (PHNOC)

Hazard(s) not otherwise

classified (HNOC)

None known

None known

None known.

**Supplemental information** Not applicable.

3. Composition/Information on ingredients

Mixture

Chemical nameCommon name and synonymsCAS number%Benzenamine,2162-74-53-7\*

N,N'-methanetetraylbis[2,6-bis(1-m

ethylethyl)-

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All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

#### **Composition comments**

US GHS: The exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200.

\*CANADA GHS: The exact percentage (concentration) of composition has been withheld as a trade secret.

## 4. First-aid measures

Inhalation
Skin contact
Eye contact

Ingestion

If symptoms develop move victim to fresh air. If symptoms persist, obtain medical attention.

Flush with cool water. Wash with soap and water. Obtain medical attention if irritation persists.

Flush with cool water. Remove contact lenses, if applicable, and continue flushing. Obtain medical

attention if irritation persists.

IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell. Rinse mouth.

Most important symptoms/effects, acute and delayed

Prolonged exposure may cause chronic effects.

Indication of immediate medical attention and special treatment needed

Provide general supportive measures and treat symptomatically. Symptoms may be delayed.

General information

In the case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). IF exposed or concerned: Get medical advice. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before reuse. Avoid contact with eyes and skin. Keep out of reach of children.

# 5. Fire-fighting measures

Suitable extinguishing media

Unsuitable extinguishing

media

Specific hazards arising from the chemical

Special protective equipment and precautions for firefighters

Fire-fighting equipment/instructions

Specific methods

General fire hazards Hazardous combustion products Foam. Dry chemical powder. Carbon dioxide.

Do not use water jet as an extinguisher, as this will spread the fire.

The product is combustible, and heating may generate vapors which may form explosive vapor/air mixtures. During fire, gases hazardous to health may be formed.

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk.

Use standard firefighting procedures and consider the hazards of other involved materials.

Combustible liquid.

May include and are not limited to: Oxides of carbon. Oxides of nitrogen. Hydrogen cyanide (hydrocyanic acid).

#### 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep out of low areas. Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

Methods and materials for containment and cleaning up

Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. Prevent entry into waterways, sewer, basements or confined areas.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Following product recovery, flush area with water.

Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

**Environmental precautions** 

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS. Avoid discharge into drains, water courses or onto the ground. Do not discharge into lakes, streams, ponds or public waters.

# 7. Handling and storage

#### Precautions for safe handling

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from open flames, hot surfaces and sources of ignition. Avoid contact with eyes, skin and clothing. Do not breathe mist or vapor. Do not taste or swallow. When using, do not eat, drink or smoke. Pregnant or breastfeeding women must not handle this product. Provide adequate ventilation. In case of insufficient ventilation, wear suitable respiratory equipment. Wear appropriate personal protective equipment. Wash thoroughly after handling. Use good industrial hygiene practices in handling this material.

# Conditions for safe storage, including any incompatibilities

Store locked up. Keep away from heat, sparks and open flame. Store in a cool, dry place out of direct sunlight. Store in original tightly closed container. Store in a well-ventilated place. Keep out of reach of children.

## 8. Exposure controls/Personal protection

Occupational exposure limits

No exposure limits noted for ingredient(s).

Biological limit values

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

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.

Individual protection measures, such as personal protective equipment

**Eye/face protection** Wear safety glasses with side shields (or goggles).

Skin protection

**Hand protection** Wear appropriate chemical resistant gloves.

Other Wear suitable protective clothing. Use of an impervious apron is recommended. As required by

employer code.

**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).

Thermal hazards

Not applicable.

General hygiene considerations

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. When using do not eat or drink.

## 9. Physical and chemical properties

AppearanceClearPhysical stateLiquid.FormLiquid.ColorStraw

Odor mild aromatic
Odor threshold Not available.

PH Not available.

Melting point/freezing point Not available.

Initial boiling point and boiling 599 °F (315 °C)

range

Pour point Not available.

Specific gravity 0.88

Partition coefficient

(n-octanol/water)

Not available

Flash point 148.9 °F (64.9 °C)
Evaporation rate Not available
Flammability (solid, gas) Not applicable.

Upper/lower flammability or explosive limits

Flammability limit - lower

Not available

(%)

Flammability limit - upper

(%)

Not available

Explosive limit - lower (%) Not available.

Explosive limit - upper (%) Not available.

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Vapor pressure
Not available.
Vapor density
Not available
Relative density
Not available.
Solubility(ies)
Insoluble
Auto-ignition temperature
Decomposition temperature
Viscosity
Not available.
Not available.

Other information

**Explosive properties** Not explosive. **Oxidizing properties** Not oxidizing.

# 10. Stability and reactivity

**Reactivity**Do not mix with other chemicals. This product may react with strong oxidizing agents.

Possibility of hazardous

reactions

No dangerous reaction known under conditions of normal use.

Chemical stability Material is stable under normal conditions.

Conditions to avoid Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the

flash point. Do not mix with other chemicals.

Strong oxidizing agents. Acids. Caustics.

Incompatible materials

Hazardous decomposition

products

May include and are not limited to: Oxides of carbon. Oxides of nitrogen. Hydrogen cyanide

(hydrocyanic acid).

# 11. Toxicological information

Routes of exposure Eye, Skin contact, Inhalation, Ingestion.

Information on likely routes of exposure

Ingestion Harmful if swallowed. May cause stomach distress, nausea or vomiting.

**Inhalation** May cause damage to organs through prolonged or repeated exposure by inhalation.

Skin contact

No adverse effects due to skin contact are expected.

Eye contact

Direct contact with eyes may cause temporary irritation.

Direct contact with eyes may cause temporary irritation.

Symptoms related to the physical, chemical and toxicological characteristics

Information on toxicological effects

Acute toxicity Harmful if swallowed.

Components Species Test Results

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

Acute

Dermal

LD50 Rat > 2000 mg/kg, 24 Hours, ECHA

Inhalation

LC50 Not available

Oral

LD50 Rat 300 - 2000 mg/kg, ECHA

Benzene, C14-30-alkyl derivitives (CAS 68855-24-3)

Acute

Dermal

LD50 Rabbit > 7940 mg/kg, US EPA

Inhalation

LC50 Not available

Oral

LD50 Rat > 15800 mg/kg, US EPA

**Skin corrosion/irritation** Prolonged skin contact may cause temporary irritation.

Exposure minutesNot available.Erythema valueNot available.Oedema valueNot available.

Serious eye damage/eye

irritation

Not available.

Not available. Corneal opacity value Not available. Iris lesion value

Conjunctival reddening

value

Not available.

Not available Conjunctival oedema value Not available. Recover days

Respiratory or skin sensitization

Respiratory sensitization Not a respiratory sensitizer.

Skin sensitization This product is not expected to cause skin sensitization.

Mutagenicity No data available to indicate product or any components present at greater than 0.1% are

mutagenic or genotoxic.

This product is not considered to be a carcinogen by IARC, NTP, or OSHA. Carcinogenicity

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)

Not listed.

Reproductive toxicity May damage fertility or the unborn child.

Not available. **Teratogenicity** Specific target organ toxicity -

single exposure

Not classified.

Specific target organ toxicity -

repeated exposure

Causes damage to organs through prolonged or repeated exposure.

**Aspiration hazard** Not an aspiration hazard.

**Chronic effects** Causes damage to organs through prolonged or repeated exposure.

## 12. Ecological information

Not available. **Ecotoxicity** 

No data is available on the degradability of this product. Persistence and degradability

Bioaccumulative potential No data available. No data available. Mobility in soil Not available. Mobility in general

Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation

potential, endocrine disruption, global warming potential) are expected from this component.

#### 13. Disposal considerations

**Disposal instructions** Collect and reclaim or dispose in sealed containers at licensed waste disposal site. This material

and its container must be disposed of as hazardous waste. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international

regulations.

Local disposal regulations

Dispose in accordance with all applicable regulations.

Hazardous waste code

The waste code should be assigned in discussion between the user, the producer and the waste

disposal company.

Waste from residues / unused

products

Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see:

Contaminated packaging

Disposal instructions). 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 or

disposal.

## 14. Transport information

**Transport of Dangerous Goods** (TDG) Proof of Classification

Classification Method: Classified as per Part 2, Sections 2.1 – 2.8 of the Transportation of Dangerous Goods Regulations. If applicable, the technical name and the classification of the

product will appear below.

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

U.S. Department of Transportation (DOT)

Not regulated as dangerous goods

Transportation of Dangerous Goods (TDG - Canada)

Not regulated as dangerous goods.

#### IATA/ICAO (Air)

Not regulated as dangerous goods.

#### **IMDG** (Marine Transport)

Not regulated as dangerous goods.

# 15. Regulatory information

#### Canadian federal regulations

This product has been classified in accordance with the hazard criteria of the HPR and the SDS contains all the information required by the HPR.

#### Export Control List (CEPA 1999, Schedule 3)

Not listed.

#### **Greenhouse Gases**

Not listed.

#### **Precursor Control Regulations**

Not regulated.

WHMIS 2015 Exemptions Not applicable

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication

Standard, 29 CFR 1910.1200.

# TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

# CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

# SARA 304 Emergency release notification

Not regulated.

#### OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)

Not listed.

#### Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 302 Extremely No

hazardous substance

SARA 311/312 Hazardous Yes

chemical

Classified hazard Flammable (gases, aerosols, liquids, or solids)

categories Acute toxicity (any route of exposure)

Specific target organ toxicity (single or repeated exposure)

## SARA 313 (TRI reporting)

Not regulated.

#### Other federal regulations

#### Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

# Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

#### US state regulations See below

# **US - Texas Effects Screening Levels: Listed substance**

Benzene, C14-30-alkyl derivitives (CAS 68855-24-3) Listed.

#### **US. California Proposition 65**

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

#### Inventory status

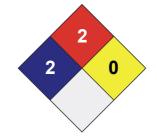
Country(s) or regionInventory nameOn inventory (yes/no)\*CanadaDomestic Substances List (DSL)YesCanadaNon-Domestic Substances List (NDSL)NoUnited States & Puerto RicoToxic Substances Control Act (TSCA) InventoryYes

\*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

## 16. Other information

LEGEND	
Severe	4
Serious	3
Moderate	2
Slight	1
Minimal	0





Disclaimer

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. The information in the sheet was written based on the best knowledge and experience currently available.

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

Further information Not available.

Other information For an updated SDS, please contact the supplier/manufacturer listed on the first page of the

document.