

SAFETY DATA SHEET

1. Product and Company Identification

Product identifier Gas Leak Detector (4180-53) Other means of identification Not available Recommended

Gas Leak Detector

Recommended restrictions

Manufacturer

Nu-Calgon 2008 Altom Court St. Louis, MO 63146 US

None known.

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

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

2. Hazards Identification

Physical hazards Flammable liquids Category 3 **Health hazards** Serious eye damage/eye irritation Category 2 Carcinogenicity Category 2

Environmental hazards Not classified. **OSHA** defined hazards Not classified.

Label elements



Signal word Warning

Flammable liquid and vapor. **Hazard statement**

Causes serious eye irritation. Suspected of causing cancer.

Precautionary statement

Prevention Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Keep container tightly

closed. Ground/bond container and receiving equipment. Use explosion-proof

electrical/ventilating/lighting equipment. Use only non-sparking tools. Take precautionary

measures against static discharge. Wash thoroughly after handling.

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves/protective clothing/eye protection/face protection.

Response If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

In case of fire: Use appropriate media to extinguish.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and

easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

If exposed or concerned: Get medical advice/attention.

Store in a well-ventilated place. Keep cool. Storage

Store locked up.

Dispose of contents/container in accordance with local/regional/national/international regulations. Disposal

Hazard(s) not otherwise

classified (HNOC)

None known.

Supplemental information 17% of the mixture consists of component(s) of unknown acute inhalation toxicity.

3. Composition/Information on Ingredients

Mixture

Chemical name	Common name and synonyms	CAS number	%
Glycerol		56-81-5	30-60
Polyethylene glycol		25322-68-3	10-30
Isopropanol		67-63-0	3-7
Sulfuric acid, monododecyl ester, compd. with 2,2",2""-nitrilotris[ethanol] (1:1)		139-96-8	1-5

Chemical name	Common name and synonyms	CAS number	%	
Amides, coco, N,N-bis(hydroxyethyl)		68603-42-9	0.5-1.5	
Ethanol, 2,2"-iminobis-		111-42-2	0.1-1	
Composition comments	US GHS: The exact percentage (concentration) secret in accordance with paragraph (i) of §1910		withheld as a trade	
	4. First Aid Measures			
Inhalation	If inhaled: Remove person to fresh air and keep center/doctor if you feel unwell.	comfortable for breathing	. Call a poison	
Skin contact	If on skin (or hair): Take off immediately all conta	aminated clothing. Rinse s	skin with water/shower.	
Eye contact	If in eyes: Rinse cautiously with water for several easy to do. Continue rinsing. If eye irritation personal transfer is a several easy to do.			
Ingestion	If swallowed: Rinse mouth. Do NOT induce vom	iting. Immediately call a p	oison center/doctor/.	
Most important symptoms/effects, acute and delayed	Causes serious eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision.			
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptoms may be delayed.	symptomatically. Keep vic	tim under observation.	
General information	Ensure that medical personnel are aware of the protect themselves. Show this safety data sheet sources of ignition. No smoking. Avoid contact contaminated clothing immediately. Wash conta of children.	to the doctor in attendant with eyes, skin and clothin	ce. Keep away from g. Take off all	
	5. Fire Fighting Measures	;		
Suitable extinguishing media	Foam. Water fog. Carbon dioxide (CO2).			
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this	will spread the fire.		
Specific hazards arising from the chemical	Vapors may form explosive mixtures with air. Va of ignition and flash back. During fire, gases haz should wear a self-contained breathing apparatu	ardous to health may be f		
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full prote	ective clothing must be wo	orn in case of fire.	
Fire-fighting equipment/instructions	In case of fire and/or explosion do not breathe fuso without risk.	umes. Move containers fro	om fire area if you can do	
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.			
General fire hazards	Flammable liquid and vapor.			
Hazardous combustion products	May include and are not limited to: Oxides of nit	rogen. Hydrogen chloride.	Oxides of carbon.	
Explosion data				
Sensitivity to mechanical impact	Not available.			
Sensitivity to static	Not available.			

Sensitivity to static

discharge

Not available.

6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. 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. Take precautionary measures against static discharge. Use only non-sparking tools. 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. Never return spills in original containers for re-use. Clean surface thoroughly to remove residual contamination. Following product recovery, flush area with water. Prevent entry into waterways, sewer, basements or confined areas. Use water spray to reduce vapors or divert vapor cloud drift. For waste disposal, see section 13 of the SDS.

Environmental precautions

Avoid discharge into drains, water courses or onto the ground.

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. Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Use non-sparking tools and explosion-proof equipment. Vapors may form explosive mixtures with air. Avoid breathing vapors or mists of this product. Use only with adequate ventilation. Avoid prolonged exposure. Wear appropriate personal protective equipment. Avoid contact with eyes, skin and clothing. When using do not eat or drink. Wash thoroughly after handling. Keep container tightly closed.

Conditions for safe storage, including any incompatibilities

Keep away from heat, sparks and open flame. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Store in a cool, dry place out of direct sunlight. Store in a well-ventilated place. Keep in an area equipped with sprinklers. Keep out of reach of children. Store locked up. Store away from incompatible materials (see Section 10 of the SDS).

200 ppm

8. Exposure Controls/Personal Protection

Occupational exposure limits

US. OSHA	Table Z-1 Limits for Air	Contaminants (29 CFR 1910.1000)
_		_	

Components	Туре	Value	Form
Glycerol (CAS 56-81-5)	PEL	5 mg/m3 15 mg/m3	Respirable fraction. Total dust.
Isopropanol (CAS 67-63-0)	PEL	980 mg/m3 400 ppm	

US. ACGIH Threshold Limit Values

Components	Туре	Value	Form
Ethanol, 2,2"-iminobis- (CAS 111-42-2)	TWA	1 mg/m3	Inhalable fraction and vapor.
Isopropanol (CAS 67-63-0)	STEL	400 ppm	

TWA

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Туре	Value	
Ethanol, 2,2"-iminobis- (CAS 111-42-2)	TWA	15 mg/m3	
,		3 ppm	
Isopropanol (CAS 67-63-0)	STEL	1225 mg/m3	
		500 ppm	
	TWA	980 mg/m3	
		400 ppm	

US. AIHA Workplace Environmental Exposure Level (WEEL) Guides

Components	Type	Value	Form
Polyethylene glycol (CAS 25322-68-3)	TWA	10 mg/m3	Particulate.

Biological limit values

ACGIH Biological Exposure Indices

Components	Value	Determinant	Specimen	Sampling Time	
Isopropanol (CAS 67-63-0)	40 mg/l	Acetone	Urine	*	

^{* -} For sampling details, please see the source document.

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 Chemical goggles are recommended.

Skin protection

Hand protection

Rubber gloves. Confirm with a reputable supplier first.

Other As required by employer code.

Respiratory protection

If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not

been established), an approved respirator must be worn.

Thermal hazards

General hygiene considerations

Not applicable.

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.

9. Physical and Chemical Properties

Appearance Liquid
Physical state Liquid.
Form Liquid.
Color Clear
Odor Isopropanol
Odor threshold Not available.
pH Not available.

Initial boiling point and boiling

Melting point/freezing point

range

unknown

Not available.

Pour pointNot available.Specific gravity1.1 - 1.15Partition coefficientNot available.

(n-octanol/water)

Flash point 102.2 °F (39.0 °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. Not available. Explosive limit - upper (%) Vapor pressure Not available. Vapor density Not available. Not available. Relative density Not available. Auto-Solubility(ies) ignition temperature Not available.

Decomposition temperature Not available. **Viscosity** Not available.

10. Stability and Reactivity

ReactivityThe product is stable and non reactive under normal conditions of use, storage and transport.

Possibility of hazardous

reactions

Hazardous polymerization does not occur.

Chemical stability Stable under recommended storage 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.

Incompatible materials Strong oxidizing agents. Isocyanates. Chlorine.

Hazardous decomposition

products

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

11. Toxicological Information

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

Information on likely routes of exposure

IngestionExpected to be a low ingestion hazard.InhalationProlonged inhalation may be harmful.

Skin contact May cause irritation.

US ACGIH Threshold Limit Values: Skin designation

Ethanol, 2,2"-iminobis- (CAS 111-42-2)

IV Can be absorbed through the skin.

Eye contact Causes serious eye irritation.

Symptoms related to the

Symptoms may include stinging, tearing, redness, swelling, and blurred vision.

physical, chemical and toxicological characteristics

Information on toxicological effects

Acute toxicity

Test Results Components **Species**

Amides, coco, N,N-bis(hydroxyethyl) (CAS 68603-42-9)

Acute

Dermal

Rabbit LD50 1220 mg/kg

Inhalation

LC50 Not available

Oral

LD50 Rat 2700 mg/kg

Ethanol, 2,2"-iminobis- (CAS 111-42-2)

Acute

Dermal

LD50 Rabbit 11.9 ml/kg

Inhalation

LC50 Not available

Oral

LD50 Rat 710 mg/kg

Glycerol (CAS 56-81-5)

Acute

Dermal

LD50 Rabbit > 10000 mg/kg

23000 mg/kg

Inhalation

LC50 Rat > 143 mg/m³, 4 Hours

Oral

LD50 Mouse 23000 mg/kg

> Rat > 12600 mg/kg

> > 27200 mg/kg

Isopropanol (CAS 67-63-0)

Acute

Dermal

LD50 Rabbit 12800 mg/kg

Inhalation

LC50 Rat 16970 mg/l/4h

Oral

LD50 Dog 4797 mg/kg

> Mouse 3600 mg/kg Rabbit 5030 mg/kg

> Rat 4396 mg/kg

Polyethylene glycol (CAS 25322-68-3)

Acute

LC50 Not available

Dermal

LD50 Rabbit 20000 mg/kg

Oral

LD50 Guinea pig 19600 mg/kg

> Rat 27500 mg/kg

Components Species Test Results

Sulfuric acid, monododecyl ester, compd. with 2,2",2""-nitrilotris[ethanol] (1:1) (CAS 139-96-8)

Acute Inhalation

LC50 Not available

Oral

LD50 Rat > 2000 mg/kg

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

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

Serious eye damage/eye

irritation

Causes serious eye irritation.

Corneal opacity value Not available.

Iris lesion value Not available.

Conjunctival reddening Not available.

value

Conjunctival oedema valueNot available.Recover daysNot available.Respiratory or skinNot available.

sensitization

Respiratory sensitization Not available.

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

US ACGIH Threshold Limit Values: Skin designation

Ethanol, 2,2"-iminobis- (CAS 111-42-2)

IV Can be absorbed through the skin.

US ACGIH Threshold Limit Values: Skin designation

Ethanol, 2,2"-iminobis- (CAS 111-42-2)

IV Can be absorbed through the skin.

Germ cell mutagenicity Not classified.

Mutagenicity Not classified.

Carcinogenicity Contains potential carcinogens.

ACGIH Carcinogens

Ethanol, 2,2"-iminobis- (CAS 111-42-2)

A3 Confirmed animal carcinogen with unknown relevance to

humans.

Isopropanol (CAS 67-63-0)

A4 Not classifiable as a human carcinogen.

IARC Monographs. Overall Evaluation of Carcinogenicity

Amides, coco, N,N-bis(hydroxyethyl) (CAS 68603-42-9) Volu

Volume 101 - 2B Possibly carcinogenic to humans.

Ethanol, 2,2"-iminobis- (CAS 111-42-2)

Volume 77, Volume 101 - 2B Possibly carcinogenic to humans.

US - California Proposition 65 - CRT: Listed date/Carcinogenic substance

1,3-Dichloropropene (CAS 542-75-6)

Amides, coco, N,N-bis(hydroxyethyl) (CAS 68603-42-9)

Ethanol, 2,2"-iminobis- (CAS 111-42-2)

Formaldehyde (CAS 50-00-0)

Methylene chloride (CAS 75-09-2)

Carcinogenic.

Carcinogenic.

Carcinogenic.

Reproductive toxicity This product is not expected to cause reproductive or developmental effects.

Teratogenicity Not classified.

Specific target organ toxicity - Not classified.

single exposure

Not classified.

Specific target organ toxicity - repeated exposure

epeated exposure

Aspiration hazard Not available.

Chronic effects Prolonged inhalation may be harmful.

Further information Not available.

Name of Toxicologically
Synergistic Products

Not available.

12. Ecological Information

Ecotoxicity See below

Test Results Components Species

Ethanol, 2,2"-iminobis- (CAS 111-42-2)

7.8 mg/L, 72 Hours Algae IC50 Algae EC50 Daphnia 55 mg/L, 48 Hours Crustacea

Aquatic

LC50 Fathead minnow (Pimephales promelas) 100 mg/l, 96 hours Fish

Glycerol (CAS 56-81-5)

Aquatic

Fish LC50 Rainbow trout, donaldson trout 51000 - 57000 mg/l, 96 hours

(Oncorhynchus mykiss)

Isopropanol (CAS 67-63-0)

Algae IC50 Algae 1000 mg/L, 72 Hours Crustacea EC50 Daphnia 13299 mg/L, 48 Hours

Aquatic

LC50 Fish Bluegill (Lepomis macrochirus) > 1400 mg/l, 96 hours

Polyethylene glycol (CAS 25322-68-3)

Aquatic

LC50 Atlantic salmon (Salmo salar) > 1000 mg/l, 96 hours Fish

No data is available on the degradability of this product.

Persistence and degradability

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

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

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

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

Empty containers or liners may retain some product residues. This material and its container must

be disposed of in a safe manner (see: Disposal instructions).

Empty containers should be taken to an approved waste handling site for recycling or disposal. Contaminated packaging

Since emptied containers may retain product residue, follow label warnings even after container is

emptied.

14. Transport Information

U.S. Department of Transportation (DOT)

Basic shipping requirements:

UN number UN1993

Flammable liquids, n.o.s. (Isopropanol RQ = 2000 LBS) Proper shipping name

Limited Quantity - US **Hazard class**

Packing group

B1, B52, IB3, T4, TP1, TP29 **Special provisions**

Packaging exceptions 150

Transportation of Dangerous Goods (TDG - Canada)

Basic shipping requirements:

UN number

Proper shipping name FLAMMABLE LIQUID, N.O.S. (Isopropanol)

Limited Quantity - Canada **Hazard class**

Ш **Packing group**

IATA/ICAO (Air)

Basic shipping requirements:

UN1993 **UN number**

Flammable liquid, n.o.s. (Isopropanol) Proper shipping name

Hazard class Limited Quantity - IATA

Packing group ||

IMDG (Marine Transport)

Basic shipping requirements:

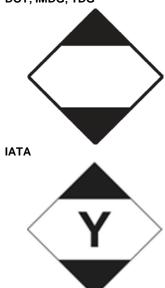
UN number UN1993

Proper shipping name FLAMMABLE LIQUID, N.O.S. (Isopropanol)

Hazard class Limited Quantity - IMDG

Packing group ||

DOT: IMDG: TDG



15. Regulatory Information

Canadian federal regulations

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

Canada NPRI VOCs with Additional Reporting Requirements: Mass reporting threshold/Identification Number

Isopropanol (CAS 67-63-0) 1 TONNES

Canada WHMIS Ingredient Disclosure: Threshold limits

Ethanol, 2,2"-iminobis- (CAS 111-42-2) 1 % Isopropanol (CAS 67-63-0) 1 %

WHMIS status Controlled

WHMIS classification Class B - Division 3 - Combustible Liquid, Class D - Division 2A, 2B

WHMIS labeling





US federal regulations

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

Standard, 29 CFR 1910.1200.

US EPCRA (SARA Title III) Section 313 - Toxic Chemical: De minimis concentration

US EPCRA (SARA Title III) Section 313 - Toxic Chemical: Listed substance

Ethanol, 2,2"-iminobis- (CAS 111-42-2) Listed. Isopropanol (CAS 67-63-0) Listed.

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

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Ethanol, 2,2"-iminobis- (CAS 111-42-2)
Isopropanol (CAS 67-63-0)
Listed.

US CAA Section 111 Volatile Organic Compounds: Listed substance
Glycerol (CAS 56-81-5)
Listed.

Isopropanol (CAS 67-63-0)

Polyethylene glycol (CAS 25322-68-3)

Listed.

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

Not regulated

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

Ethanol, 2,2"-iminobis- (CAS 111-42-2) Listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories Immediate Hazard - Yes Delayed Hazard - Yes

Fire Hazard - Yes
Pressure Hazard - No
Reactivity Hazard - No

SARA 302 Extremely

hazardous substance

SARA 311/312 Hazardous No

chemical

SARA 313 (TRI reporting)

Chemical nameCAS number% by wt.Isopropanol67-63-03-7

Other federal regulations

Safe Drinking Water Act

Not regulated.

(SDWA)

Food and Drug Administration (FDA) Not regulated.

US state regulations WARNING: This product contains a chemical known to the State of California to cause cancer.

US - California Hazardous Substances (Director's): Listed substance

Ethanol, 2,2"-iminobis- (CAS 111-42-2) Listed. Isopropanol (CAS 67-63-0) Listed.

US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance

1,3-Dichloropropene (CAS 542-75-6)Listed.Amides, coco, N,N-bis(hydroxyethyl) (CASListed.68603-42-9)Ethanol, 2,2"-iminobis- (CAS 111-42-2)Listed.Formaldehyde (CAS 50-00-0)Listed.Methanol (CAS 67-56-1)Listed.Methylene chloride (CAS 75-09-2)Listed.

US - Illinois Chemical Safety Act: Listed substance

Ethanol, 2,2"-iminobis- (CAS 111-42-2) Listed. Isopropanol (CAS 67-63-0) Listed.

US - Louisiana Spill Reporting: Listed substance

Ethanol, 2,2"-iminobis- (CAS 111-42-2) Listed. Isopropanol (CAS 67-63-0) Listed.

US - Minnesota Haz Subs: Listed substance

Ethanol, 2,2"-iminobis- (CAS 111-42-2)
Glycerol (CAS 56-81-5)
Isopropanol (CAS 67-63-0)
Polyethylene glycol (CAS 25322-68-3)
Listed.
Listed.

US - New Jersey RTK - Substances: Listed substance

Ethanol, 2,2"-iminobis- (CAS 111-42-2)
Glycerol (CAS 56-81-5)
Listed.
Isopropanol (CAS 67-63-0)
Listed.

US - New York Release Reporting: Hazardous Substances: Listed substance

Ethanol, 2,2"-iminobis- (CAS 111-42-2) Listed.

US - Texas Effects Screening Levels: Listed substance

Amides, coco, N,N-bis(hydroxyethyl) (CAS 68603-42-9)
Ethanol, 2,2"-iminobis- (CAS 111-42-2)
Glycerol (CAS 56-81-5)
Listed.
Isopropanol (CAS 67-63-0)
Listed.
Polyethylene glycol (CAS 25322-68-3)
Listed.

US. Massachusetts RTK - Substance List

Ethanol, 2,2"-iminobis- (CAS 111-42-2)
Glycerol (CAS 56-81-5)
Listed.
Isopropanol (CAS 67-63-0)
Listed.

US. Pennsylvania RTK - Hazardous Substances

Ethanol, 2,2"-iminobis- (CAS 111-42-2)
Glycerol (CAS 56-81-5)
Isopropanol (CAS 67-63-0)
Listed.

US. Rhode Island RTK

Ethanol, 2,2"-iminobis- (CAS 111-42-2) Listed. Isopropanol (CAS 67-63-0) Listed.

Inventory status

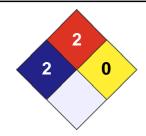
Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	No
Canada	Non-Domestic Substances List (NDSL)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

^{*}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

#25856

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.

 Issue date
 20-April-2015

 Effective date
 20-April-2015

 Expiry date
 20-April-2018

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

document.

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

Other information This Safety Data Sheet was prepared to comply with the current OSHA Hazard Communication

Standard (HCS) adoption of the Globally Harmonized System of Classification and Labeling of

Chemicals (GHS).

This SDS conforms to the ANSI Z400.1/Z129.1-2010 Standard.

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Issue date 20-April-2015