SAFETY DATA SHEET

Preparation Date: 04/14/2015 **Revision date** 2/8/2019 **Revision Number:** G2

1. IDENTIFICATION

Product identifier

Product code: C1462
Product Name: CYCLOHEXANONE, REAGENT, ACS

Other means of identification
Synonyms: Anon
Anone
Cicloesanone (Italian)
Cyclohexanone
Cyclohexyl ketone
Cyclohexylsanon (Polish)
Hexanon
Hytrol O
Ketohexamethylene
Nadone
NCI-C55005
Pimelic ketone
Pimelin ketone
RCRA waste number U057
Sextone
CAS #: 108-94-1
RTECS # GW1050000
CI#: Not available

Recommended use of the chemical and restrictions on use
Recommended use: Solvent.
Uses advised against No information available

Supplier:
Spectrum Chemical Mfg. Corp
14422 South San Pedro St.
Gardena, CA 90248
(310) 516-8000

Order Online At: https://www.spectrumchemical.com
Emergency telephone number Chemtrec 1-800-424-9300
Contact Person: Tom Tyner (USA - West Coast)
Contact Person: Ibad Tirmiz (USA - East Coast)

2. HAZARDS IDENTIFICATION

Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Considered a dangerous substance or mixture according to the Globally Harmonized System (GHS)

Acute toxicity - Oral	Category 4

Acute toxicity - Dermal	Category 4
Acute toxicity - Inhalation (Gases)	Category 4
Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2A
Specific target organ toxicity (single exposure)	Category 3
Aspiration toxicity	Category 1
Flammable liquids	Category 3

Label elements

Warning

Hazard statements
Harmful if swallowed
Harmful in contact with skin
Harmful if inhaled
Causes skin irritation
Causes serious eye irritation
May cause respiratory irritation. May cause drowsiness or dizziness
May be fatal if swallowed and enters airways
Flammable liquid and vapor

Hazards not otherwise classified (HNOC)
Not Applicable

Other hazards
May be harmful if inhaled

Precautionary Statements - Prevention
Wash face, hands and any exposed skin thoroughly after handling
Do not eat, drink or smoke when using this product
Avoid breathing dust/fume/gas/mist/vapors/spray
Use only outdoors or in a well-ventilated area
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
Keep cool
Wear protective gloves
Wear eye/face protection

Precautionary Statements - Response

In case of fire: Use CO2, dry chemical, or foam 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.
Call a POISON CENTER or doctor/physician if you feel unwell
If skin irritation occurs: Get medical advice/attention
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
Wash contaminated clothing before reuse
IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/physician if you

feel unwell.
IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
Do NOT induce vomiting
Rinse mouth

Precautionary Statements - Storage
Store locked up
Store in a well-ventilated place. Keep container tightly closed

Precautionary Statements - Disposal
Dispose of contents/container to an approved waste disposal plant

3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS No	Weight-%
Cyclohexanone	108-94-1	100

4. FIRST AID MEASURES

First aid measures

General Advice: National Capital Poison Center in the United States can provide assistance if you have a poison emergency and need to talk to a poison specialist. Call 1-800-222-1222. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

Skin Contact: Wash off immediately with soap and plenty of water. Continue flushing with plenty of water for at least 15 minutes. Remove and wash contaminated clothing before re-use. Immediate medical attention is required.

Eye Contact: Flush eyes with water for 15 minutes. Get medical attention.

Inhalation: Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Ingestion: Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Obtain medical attention.

Most important symptoms and effects, both acute and delayed

Symptoms
Causes skin irritation
Causes serious eye irritation
Aspiration hazard if swallowed - can enter the lungs and cause damage
May be fatal if swallowed and enters airways
Irritating to respiratory system
Aspiration into the lungs may cause chemical pneumonitis
Aspiration into the lungs may cause pulmonary edema
Central nervous system effects
May cause drowsiness or dizziness
Headache
Ataxia
Ingestion may cause gastrointestinal irritation, nausea, vomiting, and diarrhea
May affect the liver
It may affect the kidneys

Indication of any immediate medical attention and special treatment needed

Notes to Physician: Treat symptomatically.

Protection of first-aiders
First-Aid Providers: Avoid exposure to blood or body fluids. Wear gloves and other necessary protective clothing. Dispose of

contaminated clothing and equipment as bio-hazardous waste.

5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media: Use water spray, mist, alcohol-resistant foam, Dry chemical or Carbon dioxide (CO2).

Unsuitable Extinguishing Media: Do not use a solid (straight) water stream as it may scatter and spread fire.

Specific hazards arising from the chemical

Hazardous combustion products Carbon Monoxide, Carbon Dioxide.

Specific hazards Flammable. May be ignited by heat, sparks or flames. Vapors may form explosive mixtures with air. Vapor may travel considerable distance to source of ignition and flash back. Cyclohexanone forms explosive reaction with nitric acid at 75 deg C. Reaction of cyclohexanone with hydrogen peroxide + nitric acid forms an explosive peroxide.

Special Protective Actions for Firefighters

Specific Methods: Water mist may be used to cool closed containers For larger fires, use water spray or fog. Cool containers with flooding quantities of water until well after fire is out

Special Protective Equipment for Firefighters: As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions: Ensure adequate ventilation. Use personal protective equipment. Keep people away from and upwind of spill/leak. Avoid contact with skin, eyes and clothing. Remove all sources of ignition. Pay attention to flashback. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Use spark-proof tools and explosion-proof equipment. In case of large spill, water spray or vapor suppressing foam may be used to reduce vapors, but may not prevent ignition in closed spaces.

Environmental precautions Do not let product enter drains. Prevent further leakage or spillage if safe to do so. Prevent entry into waterways, sewers, basements or confined areas.

Methods and material for containment and cleaning up

Methods for containment Absorb spill with inert material (e.g. vermiculite, dry sand or earth), then place in a suitable chemical waste container. In case of large spill, dike if needed. Dike far ahead of liquid spill for later disposal.

Methods for cleaning up Use appropriate tools to put the spilled material in a suitable chemical waste disposal container. Use only non-sparking tools. Clean contaminated surface thoroughly.

7. HANDLING AND STORAGE

Precautions for safe handling

Technical Measures/Precautions:
Provide sufficient air exchange and/or exhaust in work rooms. Remove all sources of ignition. To avoid ignition of vapors by static electricity discharge, all metal parts of the equipment must be grounded. Keep away from incompatible materials.

Safe Handling Advice
Wear personal protective equipment. Use only in well-ventilated areas. Avoid contact with skin, eyes and clothing. Keep away from heat and sources of ignition. Do not breathe vapors or spray mist. Do not ingest. Do not smoke. Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities

Technical Measures/Storage Conditions:
Keep container tightly closed in a dry and well-ventilated place. Store at room temperature in the original container. Store away from incompatible materials. Keep away from heat and sources of ignition. Store in a segregated and approved area.

Incompatible Materials:
Oxidizing agents
Acids
Alkalis

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

National occupational exposure limits

United States

Component	CAS No	OSHA	NIOSH	ACGIH	AIHA WEEL
Cyclohexanone	108-94-1	50 ppm TWA 200 mg/m³ TWA	= 100 mg/m³ TWA	= 50 ppm STEL	None

Canada

Component	CAS No	Canada - Alberta	Canada - British Columbia	Canada - Ontario	Canada - Quebec
Cyclohexanone	108-94-1	= 20 ppm TWA = 80 mg/m³ TWA	= 20 ppm TWA	20 ppm TWA	25 ppm TWAEV 100 mg/m³ TWAEV

Australia and Mexico

Component	CAS No	Australia	Mexico
Cyclohexanone	108-94-1	100 mg/m³ TWA 25 ppm TWA	= 200 mg/m³ TWA = 50 ppm TWA

Appropriate engineering controls

Engineering measures to reduce exposure: Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors and mist below their respective threshold limit value.

Individual protection measures, such as personal protective equipment

Personal Protective Equipment

Eye protection:	Goggles
Skin and body protection:	Gloves Long sleeved clothing Chemical resistant apron
Respiratory protection:	Vapor respirator. Be sure to use an approved/certified respirator or equivalent.
Hygiene measures:	Avoid contact with skin, eyes and clothing. When using, do not eat, drink or smoke. Wash hands before breaks and immediately after handling the product

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:
Liquid

Appearance:
Oily.

Color:
Colorless.

Odor:
Peppermint like. Acetone.

Taste
No information available.

Formula
C6-H10-O

Molecular/Formula weight (g/mole):
98.14 g/mol

Flammability (solid, gas)
no data available

Flash point (°C):
44°C

Flashpoint (°C/°F):
44°C/ 111°F

Flash Point Tested according to:
Closed cup

Autoignition Temperature (°C/°F):
420/ 788°F

Lower Explosion Limit (%):
1.1%

Upper Explosion Limit (%):
9.4%

Melting point/range(°C/°F):
-31°C/ -23.8°F

Decomposition temperature(°C/°F):
No information available

Boiling point/range(°C/°F):
155.6°C/ 312.1°F

Bulk density:
No information available

Density (g/cm3):
0.9421

Specific gravity:
0.9421

pH
No information available

Vapor pressure @ 20°C (kPa):
0.7

Evaporation rate:
40.6 (Ether=1)

Vapor density:
3.4

VOC content (g/L):
No information available

Odor threshold (ppm):
0.88

Partition coefficient (n-octanol/water):
0.81

Viscosity:
2.2 mPa.s (=cP) @ 25 deg C

Miscibility:
No information available

Solubility:
Soluble in diethyl ether
Partially soluble in cold water
Partially soluble in hot water
Solubility in Water: 150 g/l @ 10 deg. C; 50g/l @ 30 deg. C
Soluble in Alcohol
Soluble in other common organic solvents

10. STABILITY AND REACTIVITY

Reactivity

It can react vigorously with strong oxidizing materials
Reacts with amines, nitric acid, and other strong acids, strong alkalis (bases) such as sodium hydroxide or potassium hydroxide, strong oxidizing agents (perchlorates, peroxides, permanganates, chlorates, nitrates, chlorine, bromine, fluorine)

Chemical stability

Stability: Stable under recommended storage conditions.

Possibility of Hazardous Reactions: Hazardous polymerization does not occur

Conditions to avoid: Heat. Ignition sources. Incompatible materials.

Incompatible Materials: Oxidizing agents
Acids
Alkalis

Hazardous decomposition products: Carbon oxides.

Other Information
Corrosivity: No information available

Special Remarks on Corrosivity: No information available

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Principal Routes of Exposure:
Eyes. Ingestion. Inhalation. Skin.

Acute Toxicity

Component Information

Cyclohexanone	
CAS No	108-94-1

LD50/oral/rat = 800 mg/kg Oral LD50 Rat
LD50/oral/mouse = 1400 mg/kg Oral LD50 Mouse
LD50/dermal/rabbit = 948 mg/kg Dermal LD50Rabbit
LD50/dermal/rat = No information available
LC50/inhalation/rat = 8000 ppm Inhalation LC50 Rat 4 h
LC50/inhalation/mouse = No information available
Other LD50 or LC50information = No information available

Product Information

LD50/oral/rat =
Value - Acute Tox = 800 mg/kg

LD50/oral/mouse =
Value - Acute Tox Oral = 1400 mg/kg

LD50/dermal/rabbit
Value - Acute Tox = 948 mg/kg

LD50/dermal/rat

VALUE - Acute Tox Dermal = No information available

LC50/inhalation/rat
VALUE-Vapor = 8000 ppm
VALUE-Gas = No information available
VALUE-Dust/Mist = No information available

LC50/Inhalation/mouse
VALUE-Vapor = No information available
VALUE - Gas = No information available
VALUE - Dust/Mist = No information available

Symptoms

Skin Contact:	Causes skin irritation. It can be absorbed through the skin. Harmful in contact with skin.
Eye Contact:	Causes eye irritation. Symptoms may include stinging, tearing, redness. May cause transient corneal injury.
Inhalation	It causes respiratory tract (nose, throat) irritation at airborne concentrations of 50 ppm; and 75 ppm causes marked irritation; and 125 ppm causes significant irritation. Exposure to vapor or mist causes eye irritation. Causes conjunctivitis. Inhalation of vapors or mist can affect respiration, behavior/central nervous system and cause central nervous system depression with nausea, headache, lightheadedness, ataxia, somnolence, weakness, dizziness, loss of coordination. It may cause kidney and liver damage.
Ingestion	Harmful if swallowed. May cause gastrointestinal tract irritation with nausea, vomiting, and diarrhea. May affect behavior/central nervous system (convulsions/seizures, somnolence), respiration(dyspnea). May affect the kidneys. May affect liver. It may affect behavior/central nervous system and cause central nervous system depression characterized by excitement followed by headache, dizziness, drowsiness, nausea and other symptoms similar to inhalation. Advanced stages may cause collapse, unconsciousness, coma and possible death die to respiratory failure. Aspiration hazard if swallowed. Aspiration may lead to pulmonary edema. Aspiration into the lungs can cause chemical pneumonitis.
Aspiration hazard	May be fatal if swallowed and enters airways.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Chronic Toxicity	It can have a deffating effect on the skin. Long term exposure to high concentration of vapors may cause clouding of the eyes. Prolonged or repeated ingestion or inhalation may affect respiration and behavior/central nervous system with symptoms similar to that of acute inhalation. It may also cause kidney damage and affect metabolism (weight loss).
Sensitization:	No information available.
Mutagenic Effects:	May affect genetic material Mutagenic effects in mammalian somatic cells Experiments with bacteria and/or yeast have shown mutagenic effects Sister Chromatid Exchange: Hamster ovary (RTECS) Cytogenic Analysis: human lymphocyte Cytogenic analysis - human leukocyte

Carcinogenic effects: Not classifiable as to its carcinogenicity to humans.

Component	CAS No	IARC	ACGIH - Carcinogens	NTP	OSHA HCS - Carcinogens	Australia - Notifiable Carcinogenic Substances	Australia - Prohibited Carcinogenic Substances
Cyclohexanone	108-94-1	Group 3 - Not classifiable - Monograph 71 [1999] Monograph 47 [1989]	A3 Confirmed Animal Carcinogen with Unknown Relevance to Humans	Not listed	Not listed	Not listed	Not listed

ACGIH (American Conference of Governmental Industrial Hygienists)

IARC (International Agency for Research on Cancer)

NTP (National Toxicology Program)

OSHA (Occupational Safety and Health Administration of the US Department of Labor)

Reproductive toxicity No data is available

Reproductive Effects: May cause adverse reproductive effects based on animal data
There is limited evidence that Cyclohexanone may damage the developing fetus.
No information on reproductive toxicity effects on humans was found

Developmental Effects: No information available

Teratogenic Effects: No information available

Specific Target Organ Toxicity

STOT - single exposure central nervous system. respiratory system.

STOT - repeated exposure No information available.

Target Organs: Liver, kidney, and respiratory system. Skin. Eyes. Central nervous system.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Ecotoxicity effects: Harmful to aquatic organisms.

Cyclohexanone - 108-94-1

Algae/aquatic plants 20 mg/L EC50 Chlorella vulgaris 96 h

Fish 8.9 mg/L LC50 Pimephales promelas 96 h 1
481-578 mg/L LC50 Pimephales promelas 96 h flow-through 1

Crustacea 800 mg/L EC50 Daphnia magna 24 h

Persistence and degradability: Readily biodegradable (90%)

Bioaccumulative potential: No information available.

Mobility in soil No information available

Other adverse effects No information available.

13. DISPOSAL CONSIDERATIONS

Disposal Methods

Waste from residues / unused products:
Waste must be disposed of in accordance with Federal, State and Local regulation.

Contaminated packaging:
Empty containers should be taken for local recycling, recovery or waste disposal

Component	CAS No	RCRA - F Series Wastes	RCRA - K Series Wastes	RCRA - P Series Wastes	RCRA - U Series Wastes
Cyclohexanone	108-94-1	None	None	None	U057 Ignitable waste

14. TRANSPORT INFORMATION

DOT

UN-No:	Not Regulated
Proper Shipping Name:	Cyclohexanone
Hazard Class	3
Subsidiary Class	No information available
Packing group:	No information available
Emergency Response Guide Number	No information available
Marine Pollutant	No data available
DOT RQ (lbs):	No information available
Special Provisions	No Information available
Symbol(s):	[DOT]: (R5) - Identifies a material that is a hazardous substance that has a reportable quantity (RQ) of 5000 pounds (2270 Kilograms).
Description:	UN1915,Cyclohexanone ,3,PG III

TDG (Canada)

UN-No:	UN1915
Proper Shipping Name:	Cyclohexanone
Hazard Class	3
Subsidiary Risk:	No information available
Packing Group:	III
Marine Pollutant	No Information available
Description:	UN1915,CYCLOHEXANONE,3,PG III

ADR

UN Number	UN1915
Proper Shipping Name:	Cyclohexanone
Transport hazard class(es)	3
Packing group	III
Subsidiary Risk:	No information available
Description:	UN1915 Cyclohexanone,3,III

IMDG

UN-No:	UN1915
Proper Shipping Name:	Cyclohexanone
Hazard Class:	3
Subsidiary Risk:	No information available
Packing Group:	III
Marine Pollutant	No information available
EMS:	F-E

RID

UN Number	UN1915
Proper Shipping Name:	Cyclohexanone

Transport hazard class(es) 3
Subsidiary Risk: No information available
Packing group III
Description: UN1915 Cyclohexanone,3,III

ICAO (air)
UN-No: UN1915
Proper Shipping Name: Cyclohexanone
Hazard Class 3
Subsidiary Risk: No information available
Packing Group: III
Description: UN1915,Cyclohexanone,3,PG III

IATA
UN Number UN1915
Proper Shipping Name: Cyclohexanone
Transport hazard class(es) 3
Subsidiary Risk: No information available
Packing group III
Precautionary Statements - Response 3L
Special Provisions No information available
Description: UN1915,Cyclohexanone,3,PG III

15. REGULATORY INFORMATION

International Inventories

Component	CAS No	U.S. TSCA	KOREA KECL	Philippines (PICCS)	Japan ENCS	China IECSC	Australia AICS	EINECS-No.
Cyclohexanone	108-94-1	Present(ACTIVE)	Present KE-09188	Present	Present (3)-2376	Present	Present	Present 203-631-1

U.S. Regulations

Cyclohexanone
Massachusetts RTK: Present
New Jersey RTK Hazardous Substance List: 0570
New Jersey - Discharge Prevention - List of Hazardous Substances: Present
Pennsylvania RTK: Environmental hazard
Pennsylvania RTK - Environmental Hazard List Present
Pennsylvania RTK - Special Hazardous Substances Present
Minnesota - Hazardous Substance List: Present
New York Release Reporting - List of Hazardous Substances:
= 5000 lb RQ
= 1 lb RQ
Louisana Reportable Quantity List for Pollutants: Listed
California Directors List of Hazardous Substances: Present
FDA - 21 CFR - Total Food Additives 177.2250
- List Sourced from EAFUS

California Prop. 65: Safe Drinking Water and Toxic Enforcement Act of 1986.

Chemicals Known to the State of California to Cause Cancer:
This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

Chemicals Known to the State of California to Cause Reproductive Toxicity:
This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

Component	CAS No	Carcinogen	Developmental Toxicity	Male Reproductive	Female Reproductive

				Toxicity	Toxicity:
Cyclohexanone	108-94-1	Not Listed	Not Listed	Not Listed	Not Listed

CERCLA/SARA

Component	CAS No	CERCLA - Hazardous Substances and their Reportable Quantities	Section 302 Extremely Hazardous Substances and TPQs	Section 302 Extremely Hazardous Substances and RQs	Section 313 - Chemical Category	Section 313 - Reporting de minimis
Cyclohexanone	108-94-1	= 2270 kg final RQ	None	None	None	None

U.S. TSCA

Component	CAS No	TSCA Section 5(a)2 - Chemicals With Significant New Use Rules (SNURS)	TSCA 8(d) -Health and Safety Reporting
Cyclohexanone	108-94-1	Not Applicable	10/04/1982 10/04/1992

Canada

WHIMIS 2015 - GHS Classifications

WHMIS 2015 Hazard Classification Information: .

Component
Cyclohexanone
108-94-1 (100)

WHMIS 2015 Hazard Classification
Flammable liquids - Category 3: H226 Flammable liquid and vapour.; Acute toxicity - Oral - Category 4: H302 Harmful if swallowed.; Acute toxicity - Dermal - Category 3: H311 Toxic in contact with skin.; Acute toxicity - Inhalation - Category 4: H332 Harmful if inhaled.; Skin corrosion/irritation - Category 2: H315 Causes skin irritation.; Serious Eye Damage/Eye Irritation - Category 2A: H319 Causes serious eye irritation.; Specific target organ toxicity - Single exposure - Category 3: H335 May cause respiratory irritation.

Canada Hazardous Products Regulation This product has been classified according to the hazard criteria of the HPR (Hazardous Products Regulation) and the SDS contains all of the information required by the HPR

DSL/NDSL

Component	CAS No	Canada (DSL)	Canada (NDSL)
Cyclohexanone	108-94-1	Present	Not Listed

Component	CAS No	CEPA Schedule I - Toxic Substances
Cyclohexanone	108-94-1	Not listed
Component	CAS No	CEPA - 2010 Greenhouse Gases Subject to Mandatory Reporting
Cyclohexanone	108-94-1	Not listed

EU Classification

EU GHS - SV - CLP 1272/2008

Component	CAS No	EU GHS - SV - CLP (1272/2008)
Cyclohexanone	108-94-1	

EU - CLP (1272/2008)

R-phrase(s)
R10 - Flammable
R20 - Harmful by inhalation

S -phrase(s)
S25 - Avoid contact with eyes

Component	CAS No	**Classification**	**Concentration Limits:**	**Safety Phrases**
Cyclohexanone	108-94-1	R10 Xn; R20	25%<=C: Xn; R20	S2 S25

The product is classified in accordance with Annex VI to Directive 67/548/EEC

Indication of danger:
Xn - Harmful

16. OTHER INFORMATION

Preparation Date: 04/14/2015
Revision date 2/8/2019
Prepared by: Sonia Owen

Disclaimer: All chemicals may pose unknown hazards and should be used with caution. This Safety Data Sheet (SDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this SDS. The physical properties reported in this SDS are obtained from the literature and do not constitute product specifications. Information contained herein does not constitute a warranty, whether expressed or implied, as to the safety, merchantability or fitness of the goods for a particular purpose. Spectrum Chemicals & Laboratory Products, Inc. assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits, arising from the use of these data. No warranty against infringement of any patent, copyright or trademark is made or implied. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this SDS is based on technical data judged to be reliable, Spectrum assumes no responsibility for the completeness or accuracy of the information contained herein.

End of Safety Data Sheet