



SAFETY DATA SHEET

RelaTECH Soluble Oil A55-LF

Version 4

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

1.1. Product identifier

Product Code(s): 95162ASO55
SDS #: 425
Product Name RelaTECH Soluble Oil A55-LF

Recommended use Metalworking fluid Any other
Uses advised against purpose.

Manufactured For:
RelaDyne, LLC
8280 Montgomery Road, Suite 101
Cincinnati, OH 45236
888-830-3156
www.reladyne.com

Emergency telephone number

INFOTRAC 800-535-5053

SECTION 2: HAZARDS IDENTIFICATION

Classification

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

Skin corrosion/irritation	Category 1 Sub-category B
Serious eye damage/eye irritation	Category 1
Skin sensitization	Category 1

GHS Label elements, including precautionary statements

Signal Word
DANGER

Hazard Statements

Causes severe skin burns and eye damage
May cause an allergic skin reaction



Precautionary Statements

Precautionary Statements - Prevention

Do not breathe dust/fume/gas/mist/vapors/spray
Wash face, hands and any exposed skin thoroughly after handling
Wear protective gloves/protective clothing/eye protection/face protection
Contaminated work clothing should not be allowed out of the workplace

Precautionary Statements - Response

Immediately call a POISON CENTER or doctor/physician
Specific treatment is urgent (see supplemental first aid instructions on this label)

Eyes

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

Immediately call a POISON CENTER or doctor/physician

Skin

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower

Wash contaminated clothing before reuse

If skin irritation or rash occurs: Get medical advice/attention

Inhalation

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing

Immediately call a POISON CENTER or doctor/physician

Ingestion

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting

Precautionary Statements - Storage

Store locked up

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

Not applicable

Other information

Not applicable

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

This product is a mixture. Health hazard information is based on its ingredients.

Chemical Name	CAS-No	Weight %
Highly refined, low viscosity mineral oils/hydrocarbons (Viscosity >7 - <20.5 cSt @40°C)	-	25% - 60%
Neutralised Dicyclohexylamine	101-83-7*	2.5% - 10%
Amines, tallow alkyl, ethoxylated	61791-26-2	2.5% - 10%
2,2',2''-Nitrilotriethanol	102-71-6	2.5% - 10%
2-Amino-2-methylpropanol	124-68-5	2.5% - 10%
1,2-Benzisothiazol-3(2H)-one	2634-33-5	0% - 1%

Additional information

See Section 11 for more information. See Section 15 for additional information on base oils.

SECTION 4: FIRST AID MEASURES

4.1. Description of first-aid measures

General advice

Immediate medical attention is required. Do not get in eyes, on skin, or on clothing. May produce an allergic reaction.

Inhalation

Move to fresh air.

Skin contact

IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower. Immediate medical attention is required. May cause an allergic skin

reaction.

Eye contact	Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing. Do not rub affected area. Seek immediate medical attention/advice.
Ingestion	Clean mouth with water and afterwards drink plenty of water. Do not induce vomiting without medical advice.
Protection of First-aiders	Use personal protective equipment. Avoid contact with skin, eyes and clothing. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation.

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

Main Symptoms Causes burns, blistering, May cause allergic skin reaction

4.3. Indication of immediate medical attention and special treatment needed

Notes to physician Treat symptomatically. May cause sensitization of susceptible persons.

SECTION 5: FIRE FIGHTING MEASURES

5.1. Extinguishing media

Suitable Extinguishing Media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment:; Use CO2, dry chemical, or foam, Water spray or fog

Extinguishing media which shall not be used for safety reasons

None

5.2. Special hazards arising from the substance or mixture

Special Hazard

Water runoff can cause environmental damage.

Hazardous Decomposition Products

None under normal use

5.3. Advice for firefighters

Special protective equipment for fire-fighters

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

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Use personal protective equipment. Avoid contact with skin, eyes and clothing. Evacuate personnel to safe areas.

Advice for non-emergency personnel

Evacuate personnel to safe areas. Material can create slippery conditions.

Advice for emergency responders For personal protection see section 8.

6.2. Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not flush into surface water or sanitary sewer system. Prevent product from entering drains. Local authorities should be advised if significant spillages cannot be contained.

6.3. Methods and materials for containment and cleaning up

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Dike to collect large liquid spills.

6.4. Reference to other sections

See Section 8/12/13 for additional information

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Remove and wash contaminated clothing before re-use. Ensure adequate ventilation. Do not eat, drink or smoke when using this product. Handle in accordance with good industrial hygiene and safety practice.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures/Storage conditions

Keep container tightly closed in a dry and well-ventilated place.

Recommended Shelf Life

No information available.

Incompatible Materials

Strong oxidizing agents, Strong acids, Strong bases

7.3. Specific end uses

Specific use(s) Metalworking fluid

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH	AIHA WEEL
Highly refined, low viscosity mineral oils/hydrocarbons (Viscosity >7 - <20.5 cSt @40°C) -	5 mg/m ³ as mist	5 mg/m ³ as mist		
2,2',2''-Nitrilotriethanol 102-71-6	TWA: 5 mg/m ³			

Other Exposure Guidelines

Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

Hydrocarbon solvent vapor mixtures which do not have substance specific occupational exposure limits may be evaluated by the Reciprocal Calculation Procedure (RCP) which assigns a recommended occupational exposure limit based on the mass composition and hydrocarbon group guidance values (GGVs). Applicable recommended occupational exposure limits are shown in the table below.

Chemical Name	RCP OEL	Manufacturer
Distillates (petroleum), hydrotreated middle 64742-46-7	RCP: TWA 1200 mg/m ³ 143ppm	

Exposure controls

Engineering Measures Ensure adequate ventilation, especially in confined areas. Showers. Eyewash stations.

Individual protection measures, such as personal protective equipment

Eye/Face Protection	If splashes are likely to occur, wear:. Face-shield. Tightly fitting safety goggles.
Skin and body protection	Wear protective gloves/clothing.
Respiratory protection	If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Respiratory protection must be provided in accordance with current local regulations.
Hygiene measures	Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Remove and wash contaminated clothing before re-use. Regular cleaning of equipment, work area and clothing is recommended. Do not eat, drink or smoke when using this product. Handle in accordance with good industrial hygiene and safety practice.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical state @20°C	liquid	Appearance	amber
Odor	Mild amine-like	Odor Threshold	Not Applicable

<u>Property</u>	<u>Values</u>	<u>Note</u>
pH	10.2	
Melting Point / Freezing Point	No information available	
Boiling point/boiling range	> 100 °C / > 212 °F	
Flash point	Not Applicable	
Evaporation rate	< 1	(BuAc = 1)
Flammability (solid, gas)	No information available	
Flammability Limits in Air		
upper flammability limit	No information available	
Lower flammability limit	No information available	
Vapor pressure	No information available	
Vapor density	No information available	
Relative density	0.96	@ 15.5°C
Solubility(ies)	No information available	
Partition coefficient: n-octanol/water	Not Applicable	
Autoignition temperature	No information available	
Decomposition temperature	No information available	
Viscosity, kinematic	> 30 cSt @ 40 °C	
Explosive properties	Not Applicable	
Oxidizing Properties	Not Applicable	

9.2 Other information

Viscosity, kinematic (100°C)	No information available
Pour point	No information available
VOC Content (ASTM E-1868-10)	39 g/L
VOC Content	No information available

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

None under normal use conditions

10.2. Chemical stability

Stable under normal conditions

10.3. Possibility of hazardous reactions

None under normal use conditions

10.4. Conditions to avoid

Do not freeze

10.5. Incompatible Materials

Strong oxidizing agents, Strong acids, Strong bases

10.6. Hazardous decomposition products

None under normal use conditions

SECTION 11: TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information	There is no data available for this product
Inhalation	There is no data available for this product.
Eye contact	May result in permanent damage including blindness.
Skin contact	Corrosive. Repeated or prolonged skin contact may cause allergic reactions with susceptible persons.
Ingestion	Ingestion causes burns of the upper digestive and respiratory tracts.

Component Information

Chemical Name	LD50 Oral (Rat)	LD50 Dermal (Rat/Rabbit)	LC50 Inhalation
Highly refined, low viscosity mineral oils/hydrocarbons (Viscosity >7 - <20.5 cSt @40°C)	>2000 mg/kg	>2000 mg/kg	
Amines, tallow alkyl, ethoxylated 61791-26-2	= 620 mg/kg (Rat)	> 10 mg/kg (Rat)	
2,2',2''-Nitrilotriethanol 102-71-6		> 16 mL/kg (Rat) > 2000 mg/kg (Rabbit)	
2-Amino-2-methylpropanol 124-68-5	2900 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	
1,2-Benzisothiazol-3(2H)-one 2634-33-5	1020 mg/kg (Rat)	4115 mg/kg (Rat)	

Information on toxicological effects

Symptoms	Causes burns. May result in permanent damage including blindness. Repeated or prolonged skin contact may cause skin irritation and/or dermatitis and sensitization of susceptible persons. Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain, or flushing.
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Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization	May cause sensitization by skin contact.
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Germ Cell Mutagenicity None known.

Carcinogenicity None known.

Reproductive toxicity None known.

Specific target organ systemic toxicity (single exposure) None known.

Specific target organ systemic toxicity (repeated exposure) None known.

Aspiration hazard None known.

Other adverse effects The document number 031 published 05-2013 by the DGUV Germany has been considered in the production of this safety data sheet (SDS). As stated in this document the classification of dicyclohexylamine is currently inconsistent between the manufacturer and the REACH classification. The classification used in this document is based on the European harmonised classification.

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity

Toxic to aquatic life with long lasting effects

Chemical Name	Toxicity to algae	Toxicity to fish	Toxicity to microorganisms	Toxicity to daphnia and other aquatic invertebrates
Neutralised Dicyclohexylamine		62: 96 h Brachydanio rerio mg/L LC50 static		
Amines, tallow alkyl, ethoxylated		0.13: 96 h Oncorhynchus mykiss mg/L LC50		0.17: 48 h Daphnia magna mg/L EC50
2,2',2''-Nitrilotriethanol	216: 72 h Desmodesmus subspicatus mg/L EC50 169: 96 h Desmodesmus subspicatus mg/L EC50	10600-13000: 96 h Pimephales promelas mg/L LC50 flow-through 1000: 96 h Pimephales promelas mg/L LC50 static 450-1000: 96 h Lepomis macrochirus mg/L LC50 static		1386: 24 h Daphnia magna mg/L EC50
2-Amino-2-methylpropanol	520: 72 h Desmodesmus subspicatus mg/L EC50	190: 96 h Lepomis macrochirus mg/L LC50 static		193: 48 h Daphnia magna mg/L EC50
1,2-Benzisothiazol-3(2H)-one	0.11: 72 h Selenastrum capricornutum mg/L EC50 0.15: 72 h Desmodesmus subspicatus mg/L EC50	2.18: 96 h Oncorhynchus mykiss mg/L LC50 5.9: 96 h Lepomis macrochirus mg/L LC50		2.94: 48 h Daphnia magna mg/L EC50

Persistence and degradability

No information available.

Bioaccumulation

Chemical Name	log Pow
Neutralised Dicyclohexylamine 101-83-7*	3.5
2,2',2''-Nitrilotriethanol 102-71-6	-2.53
1,2-Benzisothiazol-3(2H)-one 2634-33-5	0.4

Other adverse effects No information available

SECTION 13: DISPOSAL CONSIDERATIONS

Waste treatment

Waste Disposal Methods	Dispose of in accordance with federal, state, and local regulations.
Contaminated packaging	Empty containers should be taken to an approved waste handling site for recycling or disposal. Observe all label precautions until container is cleaned, reconditioned or destroyed.

SECTION 14: TRANSPORT INFORMATION

DOT

UN/ID No	UN3267
Proper shipping name	CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S.
Hazard class	8
Packing group	II
Special Provisions	B2, IB2, T11, TP2, TP27
Description	UN3267, CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (AMINES, TALLOW ALKYL, ETHOXYLATED), 8, II
Emergency Response Guide Number	153

TDG

UN/ID No	UN3267
Proper shipping name	CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S.
Hazard class	8
Packing Group	II
Description	UN3267, CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (AMINES, TALLOW ALKYL, ETHOXYLATED), 8, II

ICAO/IATA

UN No.	UN3267
Proper shipping name	CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S.
Hazard class	8
Packing group	II
Description	UN3267, CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (AMINES, TALLOW ALKYL, ETHOXYLATED), 8, II

IMDG/IMO

UN No.	UN3267
Proper shipping name	CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S.
Hazard class	8
Packing Group	II
EmS No.	F-A, S-B
Special Provisions	274
Description	UN3267, CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (AMINES, TALLOW ALKYL, ETHOXYLATED), 8, II, Marine Pollutant (NEUTRALISED DICYCLOHEXYLAMINE)

SECTION 15: REGULATORY INFORMATION

International Inventories

TSCA	Complies
DSL	All components are NOT on the Chemical Inventory
AICS	Does not Comply
PICCS	Does not Comply
KECL	Does not Comply
IECSC	Complies
ENCS	Does not Comply

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
AICS - Australian Inventory of Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
ENCS - Japan Existing and New Chemical Substances

U.S. Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories

Acute Health Hazard	Yes
Chronic Health Hazard	no
Fire Hazard	no
Sudden Release of Pressure Hazard	no
Reactive Hazard	no

Clean Water Act

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

U.S. State Regulations

SCAQMD Rule 1144

The sale or distribution in the SCAQM District of California for metal working fluids or direct-contact lubricants is allowed if EITHER the VOC of the product itself OR the VOC of the diluted product at the point of use is less than the following limits: (1) 75 g VOC/L for metal forming, metal removal, metal treating; (2) 50 g VOC/L for metal protection, direct-contact lubricant. The VOC of this product as sold is: 39 gVOC/L (ASTM E-1868-10)

California Proposition 65

WARNING: This product contains a chemical(s) known to the State of California to cause cancer and/or birth defects or other reproductive harm.

International Regulations

Canada

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

WHMIS Hazard Class

E Corrosive material
D2B Toxic materials

Other information

Not applicable

The highly refined, low viscosity mineral oils/hydrocarbons (Viscosity >7 - <20.5 cSt @40°C) contains one or more substance with the following CAS/EC numbers/REACH registration numbers:

Chemical Name	CAS-No
Distillates (petroleum), straight-run middle	64741-44-2
Distillates (petroleum), heavy hydrocracked	64741-76-0
Distillates (petroleum), solvent-refined light paraffinic	64741-89-5
Distillates (petroleum), hydrotreated middle	64742-46-7
Distillates (petroleum), hydrotreated middle	64742-46-7
Distillates (petroleum), hydrotreated light	64742-47-8
Distillates (petroleum), hydrotreated light naphthenic	64742-53-6
Distillates (petroleum), hydrotreated heavy paraffinic	64742-54-7
Distillates (petroleum), hydrotreated light paraffinic	64742-55-8
Distillates, petroleum, solvent-dewaxed light paraffinic	64742-56-9
Distillates (petroleum), solvent-dewaxed heavy, paraffinic	64742-65-0
Paraffin oils (petroleum), catalytic dewaxed light	64742-71-8
Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based	72623-86-0
Lubricating oils (petroleum), C20-C50, hydrotreated neutral oil-based	72623-87-1
White mineral oil (petroleum)	8042-47-5
C18-C50 branched, cyclic and linear hydrocarbons – Distillates	848301-69-9
Hydrocarbons, C14-C19, isoalkanes, cyclics, <2% aromatics	NOT AVAILABLE

SECTION 16: OTHER INFORMATION

NFPA **Health Hazard** 3 **Flammability** 1 **Instability** 0 **Physical and chemical hazards** -

Key or legend to abbreviations and acronyms used in the safety data sheet

STOT SE - Specific target organ systemic toxicity (Single exposure)
 STOT RE - Specific target organ systemic toxicity (repeated exposure)
 TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
 VOC - Volatile organic compounds
 NIOSH IDLH: Immediately Dangerous to Life or Health

Revision Date: 09-01-2015

Revision Note

No information available

Disclaimer

This Safety Data Sheet is prepared according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012. The information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.