

Issue Date 23-May-2019

Revision Date 28-May-2019

Version 1

1. IDENTIFICATION

Product identifier

Product Name Residual Solvents Mix Class 2C

Other means of identification

Product Code PHMIX2C

Synonyms None

Recommended use of the chemical and restrictions on use

Recommended Use No information available.

Uses advised against No information available

Details of the supplier of the safety data sheet

Emergency telephone number

Company Phone Number 800-234-7837

FAX 919-789-3019

Website www.nsilabsolutions.com

E-mail address nsi@nsilabsolutions.com

Emergency Telephone 919-349-7322

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status

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

Flammable liquids

Category 2

Label elements

Emergency Overview

Danger

Hazard statements

H302: Harmful if swallowed

H332: Harmful if inhaled

H225: Highly flammable liquid and vapor



Appearance No information available

Physical state No information available

Odor No information available

Precautionary Statements - Prevention

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

Precautionary Statements - Response

IF exposed or concerned: Get medical advice/attention

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

Unknown acute toxicity

98.166 % of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance

Chemical Name	CAS No.	Weight-%
Dimethyl acetamide	127-19-5	0.56
Dimethylformamide	68-12-2	0.478
1-Methyl-2-pyrrolidone	872-50-4	0.262

Refer to Certificate of Analysis for exact percentage concentration.

4. FIRST AID MEASURES

Description of first aid measures

Eye contact	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.
Skin contact	Wash skin with soap and water.
Inhalation	Remove to fresh air.
Ingestion	Clean mouth with water and drink afterwards plenty of water.

Most important symptoms and effects, both acute and delayed

Symptoms No information available.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media CAUTION: Use of water spray when fighting fire may be inefficient.

Specific hazards arising from the chemical

No information available.

Explosion data

Sensitivity to Mechanical Impact None.

Sensitivity to Static Discharge None.

Protective equipment and precautions 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, especially in confined areas.

Environmental precautions

Environmental precautions See Section 12 for additional Ecological Information.

Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Pick up and transfer to properly labeled containers.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place.

Incompatible materials None known based on information supplied.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Dimethyl acetamide 127-19-5	TWA: 10 ppm S*	TWA: 10 ppm TWA: 35 mg/m ³ (vacated) TWA: 10 ppm (vacated) TWA: 35 mg/m ³ (vacated) S* S*	IDLH: 300 ppm TWA: 10 ppm TWA: 35 mg/m ³
Dimethylformamide 68-12-2	TWA: 5 ppm S*	TWA: 10 ppm TWA: 30 mg/m ³ (vacated) TWA: 10 ppm (vacated) TWA: 30 mg/m ³ (vacated) S* S*	IDLH: 500 ppm TWA: 10 ppm TWA: 30 mg/m ³
1-Methyl-2-pyrrolidone 872-50-4	-	-	-

Appropriate engineering controls

Engineering Controls Showers
 Eyewash stations
 Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/face protection No special technical protective measures are necessary.

Skin and body protection No special technical protective measures are necessary.

Respiratory protection If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	No information available	Odor	No information available
Appearance	No information available	Odor threshold	No information available
Color	white		

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	No information available	
Melting point / freezing point	No information available	
Boiling point / boiling range	No information available	
Flash point	No information available	
Evaporation rate	No information available	
Flammability (solid, gas)	No information available	
Flammability Limit 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	No information available	
Water solubility	No information available	
Solubility in other solvents	No information available	
Partition coefficient	No information available	
Autoignition temperature	No information available	
Decomposition temperature	No information available	
Kinematic viscosity	No information available	
Dynamic viscosity	No information available	
Explosive properties	No information available	
Oxidizing properties	No information available	

Other Information

Softening point	No information available
Molecular weight	No information available
VOC Content (%)	No information available
Density	No information available
Bulk density	No information available

10. STABILITY AND REACTIVITY

Reactivity

No data available

Chemical stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

None under normal processing.

Conditions to avoid

Extremes of temperature and direct sunlight.

Incompatible materials

None known based on information supplied.

Hazardous Decomposition Products

None known based on information supplied.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information	No data available
Inhalation	No data available.
Eye contact	No data available.
Skin contact	No data available.
Ingestion	No data available.

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Dimethyl sulfoxide 67-68-5	-	-	-
Dimethyl acetamide 127-19-5	= 4263 mg/kg (Rat)	= 2240 mg/kg (Rabbit) > 2 g/kg (Rat)	= 2475 ppm (Rat) 1 h = 8.81 mg/L (Rat) 1 h
Dimethylformamide 68-12-2	= 2000 mg/kg (Rat) = 2800 mg/kg (Rat)	= 1100 mg/kg (Rat) > 3.2 g/kg (Rat)	-
Ethylene glycol 107-21-1	= 4700 mg/kg (Rat)	= 10600 mg/kg (Rat) = 9530 µL/kg (Rabbit)	-
2-Ethoxyethanol 110-80-5	= 2800 mg/kg (Rat)	= 3300 mg/kg (Rabbit)	= 4267 ppm (Rat) 4 h
2-Methoxyethanol 109-86-4	= 2370 mg/kg (Rat)	= 1280 mg/kg (Rabbit)	= 1478 ppm (Rat) 7 h
Formamide 75-12-7	= 5577 mg/kg (Rat) > 5000 mg/kg (Rat)	= 6 g/kg (Rabbit)	> 3900 ppm (Rat) 6 h
1-Methyl-2-pyrrolidone 872-50-4	= 3914 mg/kg (Rat)	= 8 g/kg (Rabbit)	> 5.1 mg/L (Rat) 4 h
Sulfolane 126-33-0	= 1941 mg/kg (Rat)	= 3180 µL/kg (Rabbit)	> 12 mg/L (Rat) 4 h

Information on toxicological effects

Symptoms No information available.

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

Sensitization No information available.
Germ cell mutagenicity No information available.
Carcinogenicity No information available.
Reproductive toxicity No information available.

STOT - single exposure No information available.
 STOT - repeated exposure No information available.
 Aspiration hazard No information available.

Numerical measures of toxicity - Product Information

The following values are calculated based on chapter 3.1 of the GHS document .

12. ECOLOGICAL INFORMATION

Ecotoxicity

0.006 % of the mixture consists of component(s) of unknown hazards to the aquatic environment

Chemical Name	Algae/aquatic plants	Fish	Crustacea
Dimethyl sulfoxide 67-68-5	-	-	-
Dimethyl acetamide 127-19-5	500: 72 h <i>Desmodesmus subspicatus</i> mg/L EC50	500: 96 h <i>Leuciscus idus</i> mg/L LC50 static	500: 48 h <i>Daphnia magna</i> mg/L EC50
Dimethylformamide 68-12-2	500: 96 h <i>Desmodesmus subspicatus</i> mg/L EC50	9800: 96 h <i>Oncorhynchus mykiss</i> mg/L LC50 flow-through 6300: 96 h <i>Lepomis macrochirus</i> mg/L LC50 10410: 96 h <i>Pimephales promelas</i> mg/L LC50 flow-through	7500: 48 h <i>Daphnia magna</i> mg/L EC50 6800 - 13900: 48 h <i>Daphnia magna</i> mg/L EC50 Static 8485: 48 h <i>Daphnia magna</i> mg/L EC50 semi-static
Ethylene glycol 107-21-1	6500 - 13000: 96 h <i>Pseudokirchneriella subcapitata</i> mg/L EC50	41000: 96 h <i>Oncorhynchus mykiss</i> mg/L LC50 14 - 18: 96 h <i>Oncorhynchus mykiss</i> mL/L LC50 static 16000: 96 h <i>Poecilia reticulata</i> mg/L LC50 static 40000 - 60000: 96 h <i>Pimephales promelas</i> mg/L LC50 static 27540: 96 h <i>Lepomis macrochirus</i> mg/L LC50 static 40761: 96 h <i>Oncorhynchus mykiss</i> mg/L LC50 static	46300: 48 h <i>Daphnia magna</i> mg/L EC50
2-Ethoxyethanol 110-80-5	1000: 72 h <i>Desmodesmus subspicatus</i> mg/L EC50	10000: 96 h <i>Lepomis macrochirus</i> mg/L LC50 static 0.1: 96 h <i>Pimephales promelas</i> mg/L LC50 static	10000: 48 h <i>Daphnia magna</i> mg/L EC50
2-Methoxyethanol 109-86-4	-	10000: 96 h <i>Lepomis macrochirus</i> mg/L LC50 static 9650: 96 h <i>Lepomis macrochirus</i> mg/L LC50 static 16000: 96 h <i>Oncorhynchus mykiss</i> mg/L LC50 static 500: 96 h <i>Leuciscus idus</i> mg/L LC50 static	10000: 24 h <i>Daphnia magna</i> mg/L EC50
Formamide 75-12-7	500: 72 h <i>Desmodesmus subspicatus</i> mg/L EC50 500: 96 h <i>Desmodesmus subspicatus</i> mg/L EC50	9135: 96 h <i>Brachydanio rerio</i> mg/L LC50 static 4600 - 9300: 96 h <i>Leuciscus idus</i> mg/L LC50 static	500: 48 h <i>Daphnia magna</i> mg/L EC50
1-Methyl-2-pyrrolidone 872-50-4	500: 72 h <i>Desmodesmus subspicatus</i> mg/L EC50	832: 96 h <i>Lepomis macrochirus</i> mg/L LC50 static 1072: 96 h <i>Pimephales promelas</i> mg/L LC50 static 1400: 96 h <i>Poecilia reticulata</i> mg/L LC50 static 4000: 96 h <i>Leuciscus idus</i> mg/L LC50 static	4897: 48 h <i>Daphnia magna</i> mg/L EC50
Sulfolane 126-33-0	1000: 96 h <i>Pseudokirchneriella subcapitata</i> mg/L EC50	4800: 24 h <i>Carassius auratus</i> mg/L LC50 1930: 96 h <i>Gambusia affinis</i> mg/L LC50	40: 48 h <i>Daphnia magna</i> mg/L EC50

Persistence and degradability

No information available.

Bioaccumulation

No information available.

Other adverse effects

No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated packaging Do not reuse container.

Chemical Name	RCRA	RCRA - Basis for Listing	RCRA - D Series Wastes	RCRA - U Series Wastes
Dimethyl sulfoxide 67-68-5	-	-	-	-
Dimethyl acetamide 127-19-5	-	-	-	-
Dimethylformamide 68-12-2	-	-	-	-
Ethylene glycol 107-21-1	-	-	-	-
2-Ethoxyethanol 110-80-5	U359	Included in waste stream: F005	-	U359
2-Methoxyethanol 109-86-4	-	-	-	-
Formamide 75-12-7	-	-	-	-
1-Methyl-2-pyrrolidone 872-50-4	-	-	-	-
Sulfolane 126-33-0	-	-	-	-

Chemical Name	California Hazardous Waste Status
Dimethyl sulfoxide 67-68-5	-
Dimethyl acetamide 127-19-5	-
Dimethylformamide 68-12-2	-
Ethylene glycol 107-21-1	-
2-Ethoxyethanol 110-80-5	-
2-Methoxyethanol 109-86-4	-
Formamide 75-12-7	-
1-Methyl-2-pyrrolidone 872-50-4	-
Sulfolane 126-33-0	-

14. TRANSPORT INFORMATION

DOT Not regulated

15. REGULATORY INFORMATION

International Inventories

TSCA	Complies
DSL/NDSL	Complies
EINECS/ELINCS	Complies
ENCS	Complies
IECSC	Complies
KECL	Complies
PICCS	Complies
AICS	Complies

Legend:

- TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory
- DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List
- EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
- ENCS** - Japan Existing and New Chemical Substances
- IECSC** - China Inventory of Existing Chemical Substances
- KECL** - Korean Existing and Evaluated Chemical Substances
- PICCS** - Philippines Inventory of Chemicals and Chemical Substances
- AICS** - Australian Inventory of Chemical Substances

US 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	No
Chronic Health Hazard	No
Fire hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

CWA (Clean Water Act)

This product, as supplied, 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.

US State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals

U.S. State Right-to-Know Regulations

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION

<u>NFPA</u>	Health hazards 0	Flammability 0	Instability 0	Physical and Chemical Properties -
<u>HMIS</u>	Health hazards 0	Flammability 0	Physical hazards 0	Personal protection X

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Revision Note

No information available

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet