

Issue Date 23-May-2019

Revision Date 28-May-2019

Version 1

## 1. IDENTIFICATION

### Product identifier

**Product Name** Residual Solvents Mix Class 1

### Other means of identification

**Product Code** PHMIX1

**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)

Acute toxicity - Oral	Category 4
Acute toxicity - Dermal	Category 4
Acute toxicity - Inhalation (Dusts/Mists)	Category 4
Germ cell mutagenicity	Category 1B
Carcinogenicity	Category 1A
Specific target organ toxicity (repeated exposure)	Category 1
Flammable liquids	Category 2

### Label elements

### Emergency Overview

#### Danger

#### Hazard statements

H302: Harmful if swallowed

H312: Harmful in contact with skin

H332: Harmful if inhaled

H340: May cause genetic defects

H350: May cause cancer

Causes damage to organs through prolonged or repeated exposure

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  
 Wash face, hands and any exposed skin thoroughly after handling  
 Do not eat, drink or smoke when using this product  
 Use only outdoors or in a well-ventilated area  
 Do not breathe dust/fume/gas/mist/vapors/spray

**Precautionary Statements - Response**

IF exposed or concerned: Get medical advice/attention  
 Specific treatment (see supplemental first aid on this label).  
 IF ON SKIN: Wash with plenty of water and soap  
 Call a POISON CENTER or doctor if you feel unwell  
 Take off contaminated clothing and wash it before reuse  
 IF INHALED: Remove person to fresh air and keep comfortable for breathing  
 IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell  
 Rinse mouth

**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**

Causes mild skin irritation H412: Harmful to aquatic life with long lasting effects Harms public health and the environment by destroying ozone in the upper atmosphere

Unknown acute toxicity                      100 % of the mixture consists of ingredient(s) of unknown toxicity

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

**Substance**

Chemical Name	CAS No.	Weight-%
Benzene	71-43-2	1.23
Carbon tetrachloride	56-23-5	1.25
1,2-Dichloroethane	107-06-2	2.3
1,1-Dichloroethylene	75-35-4	3.09
1,1,1-Trichloroethane	71-55-6	3.84

Refer to Certificate of Analysis for exact percentage concentration.

**4. FIRST AID MEASURES**

**Description of first aid measures**

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

**Most important symptoms and effects, both acute and delayed**

<b>Symptoms</b>	No information available.
-----------------	---------------------------

**Indication of any immediate medical attention and special treatment needed**

<b>Note to physicians</b>	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**

<b>Personal precautions</b>	Ensure adequate ventilation, especially in confined areas.
-----------------------------	--

**Environmental precautions**

<b>Environmental precautions</b>	See Section 12 for additional Ecological Information.
----------------------------------	---

**Methods and material for containment and cleaning up**

<b>Methods for containment</b>	Prevent further leakage or spillage if safe to do so.
<b>Methods for cleaning up</b>	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
Benzene 71-43-2	STEL: 2.5 ppm TWA: 0.5 ppm S*	TWA: 10 ppm applies to industry segments exempt from the benzene standard at 29 CFR 1910.1028 TWA: 1 ppm (vacated) TWA: 10 ppm unless specified in 1910.1028 (vacated) STEL: 50 ppm 10 min unless specified in 1910.1028 (vacated) Ceiling: 25 ppm unless specified in 1910.1028 Ceiling: 25 ppm STEL: 5 ppm see 29 CFR 1910.1028	IDLH: 500 ppm TWA: 0.1 ppm STEL: 1 ppm
Carbon tetrachloride 56-23-5	STEL: 10 ppm TWA: 5 ppm S*	TWA: 10 ppm (vacated) TWA: 2 ppm (vacated) TWA: 12.6 mg/m <sup>3</sup> Ceiling: 25 ppm	IDLH: 200 ppm STEL: 2 ppm 60 min STEL: 12.6 mg/m <sup>3</sup> 60 min
1,2-Dichloroethane 107-06-2	TWA: 10 ppm	TWA: 50 ppm (vacated) TWA: 1 ppm (vacated) TWA: 4 mg/m <sup>3</sup> (vacated) STEL: 2 ppm (vacated) STEL: 8 mg/m <sup>3</sup> Ceiling: 100 ppm	IDLH: 50 ppm TWA: 1 ppm TWA: 4 mg/m <sup>3</sup> STEL: 2 ppm STEL: 8 mg/m <sup>3</sup>
1,1-Dichloroethylene 75-35-4	TWA: 5 ppm	(vacated) TWA: 1 ppm (vacated) TWA: 4 mg/m <sup>3</sup>	-
1,1,1-Trichloroethane 71-55-6	STEL: 450 ppm TWA: 350 ppm	TWA: 350 ppm TWA: 1900 mg/m <sup>3</sup> (vacated) TWA: 350 ppm (vacated) TWA: 1900 mg/m <sup>3</sup> (vacated) STEL: 450 ppm (vacated) STEL: 2450 mg/m <sup>3</sup>	IDLH: 700 ppm Ceiling: 350 ppm 15 min Ceiling: 1900 mg/m <sup>3</sup> 15 min

**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

<b>Physical state</b>	No information available	<b>Odor</b>	No information available
<b>Appearance</b>	No information available	<b>Odor threshold</b>	No information available
<b>Color</b>	white		

Property	Values	Remarks • Method
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

<b>Softening point</b>	No information available
<b>Molecular weight</b>	No information available
<b>VOC Content (%)</b>	No information available
<b>Density</b>	No information available
<b>Bulk density</b>	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

<b>Product Information</b>	No data available
<b>Inhalation</b>	No data available.
<b>Eye contact</b>	No data available.
<b>Skin contact</b>	No data available.
<b>Ingestion</b>	No data available.

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Benzene 71-43-2	= 1800 mg/kg ( Rat ) = 810 mg/kg ( Rat )	> 8200 mg/kg ( Rabbit )	= 44.66 mg/L ( Rat ) 4 h
Carbon tetrachloride 56-23-5	= 2350 mg/kg ( Rat )	= 5070 mg/kg ( Rat )	= 8000 ppm ( Rat ) 4 h
1,2-Dichloroethane 107-06-2	= 680 mg/kg ( Rat )	= 4890 mg/kg ( Rabbit )	= 4 mg/L ( Rat ) 6 h
1,1-Dichloroethylene 75-35-4	= 1500 mg/kg ( Rat ) = 200 mg/kg ( Rat )	-	= 1.66 mg/L ( Rat ) 4 h = 6350 ppm ( Rat ) 4 h
1,1,1-Trichloroethane 71-55-6	= 9600 mg/kg ( Rat )	> 15800 mg/kg ( Rabbit )	= 18000 ppm ( Rat ) 4 h
Dimethyl sulfoxide 67-68-5	-	-	-

### 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 .

ATEmix (oral)	453.90
ATEmix (dermal)	1,713.80
ATEmix (inhalation-dust/mist)	1.60
ATEmix (inhalation-vapor)	43.82

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

0 % of the mixture consists of component(s) of unknown hazards to the aquatic environment

Chemical Name	Algae/aquatic plants	Fish	Crustacea
Benzene 71-43-2	29: 72 h Pseudokirchneriella subcapitata mg/L EC50	10.7 - 14.7: 96 h Pimephales promelas mg/L LC50 flow-through 5.3: 96 h Oncorhynchus mykiss mg/L LC50 flow-through 22.49: 96 h Lepomis macrochirus mg/L LC50	8.76 - 15.6: 48 h Daphnia magna mg/L EC50 Static 10: 48 h Daphnia magna mg/L EC50

		static 28.6: 96 h Poecilia reticulata mg/L LC50 static 22330 - 41160: 96 h Pimephales promelas µg/L LC50 static 70000 - 142000: 96 h Lepomis macrochirus µg/L LC50 static	
Carbon tetrachloride 56-23-5	830: 24 h Tetrahymena pyriformis mg/L EC50	36.3 - 47.3: 96 h Pimephales promelas mg/L LC50 flow-through 9.68 - 11.3: 96 h Pimephales promelas mg/L LC50 static 23 - 33: 96 h Lepomis macrochirus mg/L LC50 static	29: 48 h Daphnia magna mg/L EC50 28: 24 h Daphnia magna mg/L EC50
1,2-Dichloroethane 107-06-2	433: 96 h Pseudokirchneriella subcapitata mg/L EC50 166: 96 h Desmodemus subspicatus mg/L EC50 static	110 - 123: 96 h Pimephales promelas mg/L LC50 flow-through 225: 96 h Oncorhynchus mykiss mg/L LC50 static 230 - 710: 96 h Lepomis macrochirus mg/L LC50 flow-through	140 - 190: 48 h Daphnia magna mg/L EC50 Static
1,1-Dichloroethylene 75-35-4	-	85 - 117: 96 h Pimephales promelas mg/L LC50 flow-through 57 - 91: 96 h Lepomis macrochirus mg/L LC50 static 161 - 179: 96 h Pimephales promelas mg/L LC50 static	62 - 110: 48 h Daphnia magna mg/L LC50 Static 9.0 - 14.0: 48 h Daphnia magna mg/L LC50 Static
1,1,1-Trichloroethane 71-55-6	500: 96 h Pseudokirchneriella subcapitata mg/L EC50 669: 96 h Skeletonema costatum mg/L EC50	35.2 - 50.7: 96 h Pimephales promelas mg/L LC50 flow-through 91 - 126: 96 h Pimephales promelas mg/L LC50 static 52.9: 96 h Poecilia reticulata mg/L LC50 flow-through 57 - 90: 96 h Lepomis macrochirus mg/L LC50 static 69.7: 96 h Poecilia reticulata mg/L LC50 static 46 - 59: 96 h Oncorhynchus mykiss mg/L LC50 static 56: 96 h Cyprinus carpio mg/L LC50 flow-through	530: 48 h Daphnia magna mg/L LC50 9.7 - 12.8: 48 h Daphnia magna mg/L EC50 Static 2384: 48 h Daphnia magna mg/L EC50
Dimethyl sulfoxide 67-68-5	-	-	-

**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
Benzene 71-43-2	U019	Included in waste streams: F005, F024, F025, F037, F038, F039, K085, K104, K105, K141, K142, K143, K144, K145, K147, K151, K159, K169, K171, K172	0.5 mg/L regulatory level	U019
Carbon tetrachloride 56-23-5	U211	Included in waste streams: F001, F024, F025, F039, K016, K019, K020, K021, K073, K116, K150, K151, K157	0.5 mg/L regulatory level	U211

1,2-Dichloroethane 107-06-2	U077	Included in waste streams: F024, F025, F039, K018, K019, K020, K029, K030, K096	0.5 mg/L regulatory level	U077
1,1-Dichloroethylene 75-35-4	U078	Included in waste streams: F024, F025, F039, K019, K020, K029	0.7 mg/L regulatory level	U078
1,1,1-Trichloroethane 71-55-6	U226	Included in waste streams: F001, F002, F024, F025, F039, K019, K020, K028, K029, K096	-	U226
Dimethyl sulfoxide 67-68-5	-	-	-	-

Chemical Name	California Hazardous Waste Status
Benzene 71-43-2	Toxic Ignitable
Carbon tetrachloride 56-23-5	Toxic
1,2-Dichloroethane 107-06-2	Toxic Ignitable
1,1-Dichloroethylene 75-35-4	Toxic Ignitable
1,1,1-Trichloroethane 71-55-6	Toxic
Dimethyl sulfoxide 67-68-5	-

#### 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**

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

Issue Date 23-May-2019  
 Revision Date 28-May-2019

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**