

## SAFETY DATA SHEET

Creation Date 10-Nov-2014

Revision Date 26-Jan-2015

Revision Number 1

### 1. Identification

**Product Name** Resolve Low Viscosity

**Cat No. :** 1236519, 1236520, 23-244-262, 23-244-264

**Synonyms** No information available

**Recommended Use** Laboratory chemicals.

**Uses advised against** No Information available

**Details of the supplier of the safety data sheet**

<b>Company</b> Richard Allan Scientific A Subsidiary of Thermo Fisher Scientific 4481 Campus Drive Kalamazoo, MI 49008 Tel: (800) 522-7270	<b>Emergency Telephone Number</b> Chemtrec US: (800) 424-9300 Chemtrec EU: 001 (202) 483-7616
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### 2. Hazard(s) identification

#### Classification

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

Specific target organ toxicity (single exposure) Target Organs - Respiratory system.	Category 3
Specific target organ toxicity - (repeated exposure) Target Organs - Liver, Kidney.	Category 2

#### Label Elements

**Signal Word**  
Warning

#### **Hazard Statements**

May cause respiratory irritation  
May cause damage to organs through prolonged or repeated exposure



#### **Precautionary Statements**

##### **Prevention**

Do not breathe dust/fume/gas/mist/vapors/spray  
Use only outdoors or in a well-ventilated area

##### **Response**

Get medical attention/advice if you feel unwell

**Inhalation**

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

Call a POISON CENTER or doctor/physician if you feel unwell

**Storage**

Store in a well-ventilated place. Keep container tightly closed

Store locked up

**Disposal**

Dispose of contents/container to an approved waste disposal plant

**Hazards not otherwise classified (HNOC)**

None identified

**Unknown Acute Toxicity**

16 % of the mixture consists of ingredients of unknown toxicity.

### 3. Composition / information on ingredients

Component	CAS-No	Weight %
White mineral oil	8042-47-5	52 - 55
Hydrogenated terphenyls	61788-32-7	27 - 33
Terphenyls	26140-60-3	1 - 4
Polybutene	9003-29-6	7 - 10
Polyphenyls, quater- and higher, partially hydrogenated	68956-74-1	3 - 6

### 4. First-aid measures

<b>Eye Contact</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
<b>Skin Contact</b>	Wash off immediately with plenty of water for at least 15 minutes.
<b>Inhalation</b>	Move to fresh air.
<b>Ingestion</b>	Do not induce vomiting.
<b>Most important symptoms/effects</b>	No information available.
<b>Notes to Physician</b>	Treat symptomatically

### 5. Fire-fighting measures

<b>Suitable Extinguishing Media</b>	Water spray. Dry chemical. Carbon dioxide (CO <sub>2</sub> ). alcohol-resistant foam.
<b>Unsuitable Extinguishing Media</b>	No information available
<b>Flash Point</b>	148.89 °C / 300 °F
<b>Method -</b>	No information available
<b>Autoignition Temperature</b>	No information available
<b>Explosion Limits</b>	
<b>Upper</b>	No data available
<b>Lower</b>	No data available
<b>Sensitivity to Mechanical Impact</b>	No information available
<b>Sensitivity to Static Discharge</b>	No information available

**Specific Hazards Arising from the Chemical**

Keep product and empty container away from heat and sources of ignition.

**Hazardous Combustion Products**

Carbon monoxide (CO) Carbon dioxide (CO<sub>2</sub>)

**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.

**NFPA**

<b>Health</b> 1	<b>Flammability</b> 1	<b>Instability</b> 0	<b>Physical hazards</b> -
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**6. Accidental release measures**

**Personal Precautions** Ensure adequate ventilation. Use personal protective equipment.

**Environmental Precautions** See Section 12 for additional ecological information.

**Methods for Containment and Clean Up** Soak up with inert absorbent material. Keep in suitable, closed containers for disposal.

**7. Handling and storage**

**Handling** Ensure adequate ventilation. Wear personal protective equipment.

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

**8. Exposure controls / personal protection****Exposure Guidelines**

Component	ACGIH TLV	OSHA PEL	NIOSH IDLH
Hydrogenated terphenyls	TWA: 0.5 ppm	(Vacated) TWA: 0.5 ppm (Vacated) TWA: 5 mg/m <sup>3</sup>	TWA: 0.5 ppm TWA: 5 mg/m <sup>3</sup>
Terphenyls	Ceiling: 5 mg/m <sup>3</sup>	Ceiling: 1 ppm Ceiling: 9 mg/m <sup>3</sup> (Vacated) Ceiling: 0.5 ppm (Vacated) Ceiling: 5 mg/m <sup>3</sup>	IDLH: 500 mg/m <sup>3</sup>

Component	Quebec	Mexico OEL (TWA)	Ontario TWAEV
Hydrogenated terphenyls	TWA: 0.5 ppm TWA: 4.9 mg/m <sup>3</sup>	TWA: 0.5 ppm TWA: 5 mg/m <sup>3</sup>	TWA: 0.5 ppm
Terphenyls	Ceiling: 0.53 ppm Ceiling: 5 mg/m <sup>3</sup>	Ceiling: 0.5 ppm	CEV: 5 mg/m <sup>3</sup>

**Legend**

ACGIH - American Conference of Governmental Industrial Hygienists

OSHA - Occupational Safety and Health Administration

NIOSH IDLH: The National Institute for Occupational Safety and Health Immediately Dangerous to Life or Health

**Engineering Measures**

Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location.

**Personal Protective Equipment****Eye/face Protection**

Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

**Skin and body protection**

Wear appropriate protective gloves and clothing to prevent skin exposure.

**Respiratory Protection**

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

**Hygiene Measures**

Handle in accordance with good industrial hygiene and safety practice.

**9. Physical and chemical properties**

<b>Physical State</b>	Liquid
<b>Appearance</b>	Light yellow
<b>Odor</b>	Odorless
<b>Odor Threshold</b>	No information available
<b>pH</b>	No information available
<b>Melting Point/Range</b>	No data available
<b>Boiling Point/Range</b>	No information available
<b>Flash Point</b>	148.89 °C / 300 °F
<b>Evaporation Rate</b>	No information available
<b>Flammability (solid, gas)</b>	No information available
<b>Flammability or explosive limits</b>	
<b>Upper</b>	No data available
<b>Lower</b>	No data available
<b>Vapor Pressure</b>	No information available
<b>Vapor Density</b>	No information available
<b>Relative Density</b>	0.92
<b>Solubility</b>	No information available
<b>Partition coefficient; n-octanol/water</b>	No data available
<b>Autoignition Temperature</b>	No information available
<b>Decomposition Temperature</b>	No information available
<b>Viscosity</b>	No information available

**10. Stability and reactivity**

<b>Reactive Hazard</b>	None known, based on information available
<b>Stability</b>	Stable under normal conditions.
<b>Conditions to Avoid</b>	Incompatible products. Excess heat.
<b>Incompatible Materials</b>	Strong oxidizing agents
<b>Hazardous Decomposition Products</b>	Carbon monoxide (CO), Carbon dioxide (CO <sub>2</sub> )
<b>Hazardous Polymerization</b>	Hazardous polymerization does not occur.
<b>Hazardous Reactions</b>	None under normal processing.

**11. Toxicological information****Acute Toxicity**

<b>Oral LD50</b>	Based on ATE data, the classification criteria are not met. ATE > 2000 mg/kg.
<b>Dermal LD50</b>	Based on ATE data, the classification criteria are not met. ATE > 2000 mg/kg.
<b>Vapor LC50</b>	Based on ATE data, the classification criteria are not met. ATE > 20 mg/l.

**Component Information**

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
White mineral oil	>5000 mg/kg (Rat)	>3000 mg/kg (Rabbit)	Not listed
Hydrogenated terphenyls	10200 mg/kg ( Rat )	6800 mg/kg ( Rabbit )	4.3 mg/L ( Rat ) 4 h
Terphenyls	Not listed	12500 mg/kg ( Rabbit )	Not listed

**Toxicologically Synergistic** No information available**Products****Delayed and immediate effects as well as chronic effects from short and long-term exposure**

<b>Irritation</b>	No information available
<b>Sensitization</b>	No information available

**Carcinogenicity**

The table below indicates whether each agency has listed any ingredient as a carcinogen.

Component	CAS-No	IARC	NTP	ACGIH	OSHA	Mexico
White mineral oil	8042-47-5	Not listed				
Hydrogenated terphenyls	61788-32-7	Not listed				
Terphenyls	26140-60-3	Not listed				
Polybutene	9003-29-6	Not listed				
Polyphenyls, quater- and higher, partially hydrogenated	68956-74-1	Not listed				

**Mutagenic Effects**

No information available

**Reproductive Effects**

No information available.

**Developmental Effects**

No information available.

**Teratogenicity**

No information available.

**STOT - single exposure  
STOT - repeated exposure**

Respiratory system  
Liver Kidney

**Aspiration hazard**

No information available

**Symptoms / effects,both acute and delayed**

No information available

**Endocrine Disruptor Information**

No information available

**Other Adverse Effects**

The toxicological properties have not been fully investigated.

## 12. Ecological information

**Ecotoxicity**

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
White mineral oil	Not listed	10000 mg/L LC50 96 h	Not listed	Not listed
Hydrogenated terphenyls	0.53 mg/L EC50 > 96 h	0.53 mg/L LC50 96 h	Not listed	0.011 mg/L EC50 = 48 h
Terphenyls	0.02 mg/L EC50 = 96 h	0.11 mg/L LC50 96 h	Not listed	0.11 mg/L EC50 > 48 h

**Persistence and Degradability  
Bioaccumulation/ Accumulation**

No information available  
No information available.

**Mobility**

Component	log Pow
White mineral oil	6

## 13. Disposal considerations

**Waste Disposal Methods**

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

## 14. Transport information

<b>DOT</b>	Not regulated
<b>TDG</b>	Not regulated
<b>IATA</b>	Not regulated
<b>IMDG/IMO</b>	Not regulated

## 15. Regulatory information

All of the components in the product are on the following Inventory lists: Australia X = listed China Canada The product is classified and labeled according to EC directives or corresponding national laws The product is classified and labeled in accordance with Directive 1999/45/EC Europe TSCA Philippines

#### International Inventories

Component	TSCA	DSL	NDSL	EINECS	ELINCS	NLP	PICCS	ENCS	AICS	IECSC	KECL
White mineral oil	X	X	-	232-455-8	-		X	X	X	X	X
Hydrogenated terphenyls	X	X	-	262-967-7	-		X	X	X	X	X
Terphenyls	X	X	-	247-477-3	-		X	X	X	X	X
Polybutene	X	X	-	-	-	products derived from But-1-ene or But-2-ene, consisting of 50% w/w or more of species of the same molecular weight	X	X	X	X	X
Polyphenyls, quater- and higher, partially hydrogenated	X	X	-	273-316-1	-		X	-	X	X	-

#### Legend:

X - Listed

E - Indicates a substance that is the subject of a Section 5(e) Consent order under TSCA.

F - Indicates a substance that is the subject of a Section 5(f) Rule under TSCA.

N - Indicates a polymeric substance containing no free-radical initiator in its inventory name but is considered to cover the designated polymer made with any free-radical initiator regardless of the amount used.

P - Indicates a commenced PMN substance

R - Indicates a substance that is the subject of a Section 6 risk management rule under TSCA.

S - Indicates a substance that is identified in a proposed or final Significant New Use Rule

T - Indicates a substance that is the subject of a Section 4 test rule under TSCA.

XU - Indicates a substance exempt from reporting under the Inventory Update Rule, i.e. Partial Updating of the TSCA Inventory Data Base Production and Site Reports (40 CFR 710(B)).

Y1 - Indicates an exempt polymer that has a number-average molecular weight of 1,000 or greater.

Y2 - Indicates an exempt polymer that is a polyester and is made only from reactants included in a specified list of low concern reactants that comprises one of the eligibility criteria for the exemption rule.

#### U.S. Federal Regulations

TSCA 12(b) Not applicable

SARA 313 Not applicable

#### SARA 311/312 Hazardous Categorization

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

Clean Water Act Not applicable

**Clean Air Act** Not applicable

**OSHA Occupational Safety and Health Administration**  
Not applicable

**CERCLA**  
Not applicable

**California Proposition 65** This product does not contain any Proposition 65 chemicals

**State Right-to-Know**

Component	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Hydrogenated terphenyls	X	X	X	-	-
Terphenyls	X	X	X	-	X

**U.S. Department of Transportation**

Reportable Quantity (RQ): N  
DOT Marine Pollutant N  
DOT Severe Marine Pollutant N

**U.S. Department of Homeland Security**

This product does not contain any DHS chemicals.

**Other International Regulations**

**Mexico - Grade** Minimum risk, Grade 0 Slight risk, Grade 1

**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** D2B Toxic materials



**16. Other information**

**Prepared By** Regulatory Affairs  
Richard Allan Scientific  
A Subsidiary of Thermo Fisher Scientific  
Tel: (800) 522-7270

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**Revision Summary** This document has been updated to comply with the US OSHA HazCom 2012 Standard replacing the current legislation under 29 CFR 1910.1200 to align with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS)

**Disclaimer**

The information provided on 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 guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as 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

material or in any process, unless specified in the text.

**End of SDS**